Esports Learning Guide for Teachers and Coaches

Semester Courses

Version 4.0

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ACKNOWLEDGEMENTS

Special thanks for the commitment and support of our partners for enabling this project to be developed and available.

- Intel
- Dell Technologies
- Advanced Learning Partnerships
- Albuquerque Public Schools - NM
- Grapevine-Colleyville Independent School District - TX

Versions Edits
4.0: April 28, 2021 - Added alignment to the Computer Science Standards.
3.0: July 20, 2020 - Added three additional modules. Included a one-year course outline.
2.5: May 13, 2020 - Improvements to alignments and edits.
2.0: October 7, 2019 - Fully reviewed and formatted document.

OVERVIEW

Esports Learning Guide for Teachers and Coaches

This learning guide takes students through rich immersive experiences into different aspects of esports. While playing and competing is a core part of any esports organization, and is covered in this guide, there is much more involved.

On November 4, 2017, the League of Legends World Finals match was held. Samsung Galaxy defeated reigning champion SK Telecom T1 in a best of five series. 58 million viewed the match. Just one week prior, 80 million watched the semifinal match where SK Telecom T1 defeated Royal Never Give Up. In the same year, during the NBA Championship Finals, the Golden State Warriors defeated the Cleveland Cavaliers, watched by a viewership of 20.4 million.

Esports attract players and fans on a global scale across different game-based leagues like League of Legends, Rocket League, Dota 2, Overwatch, and more. Additionally, professional players compete as individuals in esports like StarCraft II and Super Smash Brothers. The opportunities for competing regionally and globally have expanded beyond the offerings of traditional sports. With the breath of computer games that are developed for competition, the future opportunities are wide open.

Like its traditional sports cousins, esports has benefits and challenges. Besides opening more opportunities for competing and expanding to a wider fan base, professional athlete salaries are gradually increasing, ranging from $20,000 to $30,000 base and rising into the millions. As a sport establishes franchising or strong team sponsorship, base salaries could increase, as it has with League of Legends. With the growth of esports as an industry, new job opportunities grow. Some needs include: coaching staff, nutritionists, physical trainers, mental coaches, cooks, casters (sports casters), reporters, IT, streamers, marketers, social media managers, tournament planners, and organizers for travel logistics. Each league is its own economic community. Each team is its own business organization.

More colleges are adding esports programs to develop into similar structures as found with traditional sports. This replicates career options. Scholarships are being added to these programs that provide opportunities for talented players to cover their college degrees. As esports grow in the collegiate system, more students will have access to education, leading to other job opportunities.

Opening career options is important because the journey to becoming a professional esports athlete is intensely competitive. For example, in League of Legends in the North American Region, called the LCS, there are ten teams. Each team has five starters and five academy players. That is a total of 100 slots for competing professionally. Similar to professional sports like basketball, football, and hockey, there are more teams with larger player rosters but getting a spot on these professional teams is extremely difficult, even among those who compete at the college level. As a result, opportunities at college are valuable for access to the quality education provided.

Having a high school esports program is invaluable to students with the passion to compete or the dream to be part of programs at the college and professional levels, including aspiring players, coaches, and content providers. Currently, players aspiring to become professionals must often “go it alone.” There are no development leagues for teens. Few coaches are available to give them the experience of collaborating and thinking strategically about micro and macro play. Most players learn on their own. If they are lucky, critiques are constructive. However, the online game community can be quite toxic without a filter for how feedback is given. Check a Reddit stream for any game as an example. Recently, private coaching services for esports games have started to emerge, allowing parents who are able to pay an opportunity to develop their children, just like for gymnastics, pitching, and piano. This can be a positive experience. However, having a school program provides parents with a level of trust that coaching in esports will be positive, constructive, and a growth experience as students develop digital citizenship skills along with a deep understanding and pleasure with the games they love playing.

About the Content Developer

John McCarthy, Ed.S.: John is an active gamer for over 30 years, playing numerous hours with mobas and mmorpg with friends as with his kids as they grew up. He became involved with esports in 2015 when his son started training in hopes of making a team. Over the years, he educated himself about esports as a culture, a business, and a global phenomenon. An avid esports fan, he watches and attends live esports events of his favorite teams. As a strong advocate for student voice, John recognized how esports and academic learning is a powerful opportunity for learners.

John McCarthy is an Adjunct Professor at Madonna University for the School of Education, Graduate Program and an Education Consultant supporting schools internationally about student agency and innovative instruction such as Differentiation, Project Based Learning, Digital Citizenship, and Global Professional Skills. He does consulting work with Advanced Learning Partnerships, Dell Technologies, and other international organizations. He’s the author of the book, “So All Can Learn: A Practical Guide to Differentiation” and is a contributing writer for Edutopia. With over 30 years of experience in education, John McCarthy has been a secondary teacher who coached various high school sports teams. He holds a Bachelor of Science in History and Education, a Master of Science in English Literature, and an Education Specialist in Leadership.

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About the Course Options

Students participating in courses composed of these modules will learn about all aspects of esports as an industry and the many opportunities for participation in colleges and careers. This innovative approach is founded on the concept promoted by John Dewey about experiential learning. Students will be immersed in experiences where they will develop skills used in the esports industry and apply them for real world authentic purposes. In the process, they will maintain an electronic portfolio (ePortfolio) containing artifacts and documented experiences that they can use for applications to college and career opportunities.

In the progression provided in the following pages, the students will have multiple experiences managing and running high school esports events both live and recorded. These practical experiences and leadership opportunities will be based on a structured development of students as responsible and professional digital citizens. Using the standards established by ISTE and resources from schools and organizations regarding Global Professional Skills (GPS), this course will prepare students to become proficient in the core skills, sometimes called soft skills, that will help them successfully navigate working with and leading teams to solve complicated problems, sometimes with creative solutions. These skills include:

ISTE Standards for Students

- Empowered Learner
- Digital Citizen
- Knowledge Constructor
- Innovative Designer
- Computational Thinker
- Creative Communicator
- Global Collaborator

Global Professional Skills

- Communication: oral and written
- Collaboration: teamwork
- Critical Thinking and Problem Solving
- Creativity and Innovation
- Empathy
- Perseverance
- Research and Information Literacy

The course options are a combination of teacher coached and facilitated learning, along with student-centered learning. Self-directed modules are provided so that students have choices within each focus area to personalize their learning based on interest. For example, students

can explore the area of streaming content in the areas of broadcasting as reporters, casting live or recorded matches, live or recorded game analysis of a match, among other options determined by the students. These experiences along with opportunities for virtual job shadowing will give the students in the course a competitive advantage over their peers in schools who do not have a similar structure.

Course Components

As jobs become more competitive on a global scale, it is important to develop students to become the creators of jobs that may not yet exist. Striving for this goal means that students will develop skills for digital citizenship that can give them a competitive edge of job seekers elsewhere just by becoming more proficient through practical experiences. Key skills that colleges and employers (NACE study) routinely want from incoming members can be distilled into the global professional skills listed previously.

As the opening course to future esports classes, students will be introduced to many core aspects of structures for programs and career options in this ever-growing field. In this guide, students will explore three key areas: Operations, Production, and Business.

Operations

Students will explore the world of competition and preparations that staff and athletes must undertake to become the best teams both competitively and organizationally. Areas that are studied include:

- Coaching skills
- Analytics
- Strategy/Tactics
- Team Dynamics
- Health and Wellness (personal finance literacy)

Careers that students may explore, as well as the context, vary because there are many staff positions that support players, such as chefs, nutritionists, fitness trainers, sports psychologists, financial managers, analysts, scouts, researchers, and coaches.

Production

As with every popular sport, there is a fan base to support by giving them access to a variety of entertainment media for watching matches and consuming content about their favorite teams. Esports is unique in that technology is a key component for producing great content and providing access to fans anywhere and anytime. Students will learn about and produce content via streaming media. They will explore the following areas as they relate to esports:

- Streaming
- Social Media
- Broadcasting (journalism, commentator, entertainer (ie. sports youtuber)
- Technical knowledge of equipment

Production includes many career options that students can choose to explore, such as camera person, sports caster, interviewer, reporter, sports writer, stage crew/manager, production manager, video editor, technician, vlogger, and sports host.

Business

Esports organizations, like traditional sports teams, exist to make a profit to support their programs and stay competitive. This requires an effective business plan and quality professionals to run areas such as marketing, finance, promotions, branding, and organization structures. Students will receive some exposure to these areas, which will be used as foundations for later course offerings.

On completion of these components, students will develop a deep understanding of key components of esports programs. They will get practical experiences related to the field of esports to use as a basis for making informed decisions about choosing careers. Students will build competency for digital citizenship that will give them a competitive edge in any future pathways they choose for colleges and careers.

End in Mind for Planning and Implementation

Outcomes

By the end of these learning experiences, students will:

- Develop an understanding of esports opportunities for college and career pathways for competition and business.
- Become proficient with digital citizenship skills that support colleges and careers. Students will accomplish this by defining the purpose of the skills and developing a set of behavioral strategies for demonstrating proficient use of the following skills:

  1. Communication and Collaboration
  2. Critical Thinking
  3. Creativity
  4. Research & Information Fluency
  5. Growth Mindset

- Build a digital portfolio of quality artifacts that represent growth in various esports career pathways in the areas of Production and/or Operations.
- Develop communication skills:
  - Speaking: Public speaking for esports events, including live and recorded video streams.
    - Using appropriate language for the context of the event and/or purpose.
  - Writing: Writing for multiple purposes, media formats, and audiences. Planning, organizing, and producing content using the writing process.
    - Using appropriate word choice for the context of the event and/or purpose.
    - Communicating through informational and persuasive formats.
  - Reading: Comprehend informational text and directions.
    - Unpack meaning and purpose from informational and other non-fiction text.
  - Listening: Developing listening skills for teamwork for competition, live and recorded productions, and critique and revision sessions.
- Develop an understanding of esports strategies and tactics:
  - Understand the structures used by selected games for developing and using effective strategies and tactics to give player and team advantages.
  - Understand the use of data and analytics for scouting and diagnosing strengths and weaknesses of teams, players, and game elements such as champions and items.
- Implement production components for esports events

- Technical Support: Understand support of setup and operation of essential equipment for esports competitions and events productions.
- Promotional: Understand the use of social media and community tools for promoting branding of esports teams and productions.
- Consumed Content: Develop a practical understanding of selected aspects for providing esports content through streaming and digital print methods.
- Team Support: Build usage of analytics and scouting to support strategies for successful competition against opposing teams.

Running an Esports Event

Production for esports includes many components. Some are essential to the competition between players, and others are options based on the interest areas of the students to contribute to the esports organization. The following is a breakdown of such events into three phases: Pre-Production, Production, and Post-Production. By the middle of the second marking period, students will work in teams to support components that crossover two or all three phases. These experiences will provide rich artifacts and reflections for student portfolios.

	Phase 1: Pre-Production	Phase 2: Production	Phase 3: Post-Production
Technical Support	• *Setup and test: computers, video recording, mics, bandwidth, etc.	• *Monitoring equipment functions, such as bandwidth, video recording, and micing • Set up camera angles and game map view options	• Camera shots/movement of end game reactions by players and fans • Micing for interviews • *Breakdown of equipment
Promotional	• *Social media marketing, including hashtags, user surveys, announcements. • Video trailers • Posters, flyers, and listservs	• Commercials during breaks between games • Analyst/Caster commentary during breaks between games	• *Social media marketing, including hashtags, user surveys, announcements • Video trailers • Posters, flyers, and listservs
Consumed Content	• *Articles/videos/podcasts about matchups, esports news (pros, college, and HS), meta updates	• *Casting the games • Social media updates via hashtags and images (live)	• Analyst desk • *Caster summaries • Player/coach interviews • *VODs/Articles/Podcasts

	• Analyst desk (live or recorded) • *Casters (live on game day) - video and audio • Player, coach, fan interviews (live or recorded)		• Highlight reels • Sports talk about the match and the sports at pro and college level • Analysis of the match • Summary of the match • Other esports related content
Team Support	• *Scouting report on the other team • Scouting report on home team players • *Analysis on meta updates • Situational scrimmaging • Create and execute set plays	• *Analysis: adjustments made between games	• Game tape: analysis of performance by the team and by position • *Player reflection on personal and team performance

* These elements require coverage by students. All other items are subject to needs and interests based on conversations by students, teachers, and coaches.

After nine to ten weeks, the above production phases will be entirely student-run by the course participants along with student volunteers. While all phases and categories will be addressed, not all items in each category will be used. The ones selected will be a combination of needed areas and items that are interest-based. For example, during Phase 2: Production, casting the games is necessary, but there might not be live tweeting of the games through hashtags. During Phase 3: Post-Production, there may be vod highlight reels and an article that summarizes the match, but no other items on the list are covered.

Areas of Focus for the Learning Experiences

Production	Operations	Business
• Streaming • Social media • Broadcasting (journalism and commentator) • Technical	• Coaching analytics • Strategy/tactics • Team dynamics • Health and wellness (personal finance literacy)	• Marketing • Finance • Organization structure • Promotion
Eportfolio (potential artifacts)		
• Screencast/reflections • Highlight reel • Game recaps	• Self-edited show • Casting skills • Strategy guide	• Scouting/template • Resume • Career plan

EXAMPLE COURSE OUTLINES: SEMESTER & YEAR

Resources:

- Instructional Tools to Support the Curriculum Blocks
- **Esports Production Job Shadowing**: View details here.

Year-Long and One Semester Esports Course Outlines

One Year - One Semester

One Year Course Outline

First Semester - **See Curriculum Modules directory for Details**

Week	Topic & Description	Outcomes
1-3	**Esports Culture Building:** Teacher-Facilitated & Student-Led ● Esports History ● Teamwork: Play and Teambuilders	● Create a supportive team esports culture. ● Understand the core Global Professional Skills (GPS) that will be practiced throughout the course. ● Learn history about esports and some professional organizations. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor

4-5	Digital Citizenship in Gaming Culture: ● Teacher-led ● Digital Citizenship Overview (ISTE) ● Online Relationships ● Security & Privacy ● Digital Footprint ● Bullying/Trolling ● ePortfolios Introduction ● Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	● Build understanding of digital citizenship. ● Practice behaviors that support digital citizenship. ● Grow a collaborative and inclusive esports culture. ● Practice the core GPS: communication and collaboration. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ISTE Standards ● Empowered Learner ● Digital Citizenship
6-7	Content Production: ● Teacher &/or Student-Led ● Content Production Introduction ● Broadcasting: Journalism and Commentator (video & written) ● Careers Connections ● Self-Directed Module(s) completion for a broadcasting option (streaming) ● Produce content for one of the school esports teams. (may request to focus on a pro or college team) ● Develop and Use Critique Protocols ● Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	● Understand core concepts and ideas about content production for esports. ● Explore career opportunities in esports related to content production and job shadowing. ● Practice behaviors that support digital citizenship and GPS. ● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ● Practice the writing process for content development. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor ● Innovative Designer ● Creative Communicator ● Global Collaborator
8-9	Content Production: Teacher &/or Student-Led	Continued from previous week.

	● Self-Directed Module(s) completion for a Broadcasting option (streaming) ● Produce and publish content for one of the school esports teams. (may request to focus on a pro or college team) ● Practice Critique Protocols ● Promote publications using hashtags in social media tools ● Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	
10-11	Operations Overview and related careers: ● Understand career opportunities in gaming organizations Student-led ● Self-Directed Module(s) completion for game analysis (student choice of pro, college, or high school esports) ● Esports Production: Job Shadowing & assisting (Technical Support, Consumed Content, Team Support)	● Understand core concepts and ideas about operations for esports organizations. ● Explore career opportunities in esports related to content production and job shadowing. ● Practice behaviors that support Digital Citizenship and Global Professional Skills (GPS). ● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ISTE Standards ● Knowledge Constructor ● Computational Thinker ● Creative Communicator ● Global Collaborator
12-13	Strategies/Tactics: Coaching/Analytics Game Theory	● Understand core concepts for game analysis and mechanics. ● Evaluate how analysis is used in the professional world of esports. ● Practice behaviors that support Digital Citizenship and GPS. ● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding. ● Write informational and persuasive texts for communication. ● Practice the writing process for content development.

	Student choice (continued from previous week Self-Directed Module(s) completion for game analysis (student choice of pro, college, or high school esports) Esports Production: Job Shadowing & assisting (Technical Support, Consumed Content, Team Support)	**ISTE Standards** ● Empowered Learner ● Knowledge Constructor ● Computational Thinker ● Creative Communicator ● Global Collaborator
14-15	Fitness and Nutrition for Esports	● Understand the risks and benefits related to fitness and nutrition ● Examine and evaluate practices that could lead to building a healthy lifestyle for esports competition. ● Practice the core GPS: Communication, Collaboration, Critical Thinking, and Creativity. ● Read informational text for understanding. ● Write persuasive and/or argumentative texts for communication. **ISTE Standards** ● Digital Citizen ● Knowledge Constructor ● Creative Communicator
16-17	ePortfolio: Development: Teacher-led ePortfolio Analysis and Preparations: Student-led: Self-Directed Module(s) completion (as needed) ePortfolio Analysis and Preparations	Design and develop an ePortfolio for colleges and/or careers. Explore career opportunities in esports. Practice behaviors that support digital citizenship and GPS. Grow a collaborative and inclusive esports culture. Read informational text for understanding. Write informational texts and narratives for communication.

	Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	ISTE Standards Empowered Learner Digital Citizenship Knowledge Constructor Innovative Designer Creative Communicator Global Collaborator
18	Eportfolio: Presentations: Student-Led Esports Production: Job Shadowing & Assisting	Continued from previous week.

*Esports Production: Job Shadowing & assisting (Technical Support, Consumed Content, Team Support): Students must participate in 4 sessions and experience each of the three categories. Students choose the category for the final session.

See Curriculum Modules directory for Details

Second Semester - **See Curriculum Modules directory for Details**

Week	Topic & Description	Outcomes
1	Business Overview: Teacher-Led ● Marketing, Promotional, Finance, and Organizational Structure Student-Led ● Self-Directed Module(s) on a Business Area ● Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	● Understand core concepts for the business side of organizations like esports. ● Develop core skills for networking and building connections. ● Practice behaviors that support digital citizenship (i.e. digital footprint) and Global Professional Skills (GPS). ● Grow a collaborative and inclusive esports culture. ● Build skills in research and informational literacy. ● Read informational text for understanding. ● Write informational and persuasive texts for communication. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor ● Global Collaborator
2-3	Women and Gender Equity in Sports Culture Teacher & Student-Led Self-Directed Module(s) completion	● Build and expand an understanding of the participation and contributions by women in traditional sports and esports. ● Analyze the level of skill requirements for esports as gender neutral. ● Evaluate the core bias and toxicity in esports and find solutions towards positive change. ● Practice the core GPS: Communication, Collaboration, Critical Thinking, and Creativity. ● Read informational text for understanding. ● Write persuasive and/or argumentative texts for communication. **ISTE Standards** ● Digital Citizen ● Knowledge Constructor ● Creative Communicator

4-5	Mindfulness and Mental Health for Esports	● Understand the risks and benefits related to fitness, nutrition, and mindfulness ● Examine and evaluate practices that could lead to building a healthy lifestyle for esports competition. ● Practice the core GPS: Communication, Collaboration, and Critical Thinking. ● Read informational text for understanding. ● Write persuasive and/or argumentative texts for communication. **ISTE Standards** ● Digital Citizen ● Knowledge Constructor ● Creative Communicator
6-8	**Content Production:** Live Action Preparations Teacher &/or Student-Led ● Esports Production: Preparation and Live Action to support production of the school's esport team(s) events. ● Development of an esport tournament that is run either in class, schoolwide, or community wide. ● ePortfolio Analysis and Preparations	● Build deeper application skills of core concepts and ideas about content production and esports. ● Develop project management skills through tournament planning. ● Explore career opportunities in esports related to content production and job shadowing. ● Practice behaviors that support Digital Citizenship and GPS. ● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ● Practice the writing process for content development. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor ● Innovative Designer ● Creative Communicator ● Global Collaborator
9	ePortfolio Analysis and Preparations:	● Design and develop an eportfolio for colleges and/or careers. ● Explore career opportunities in esports. ● Practice behaviors that support Digital Citizenship and GPS.

	Student-led: ● Self-Directed Module(s) completion (as needed) ● ePortfolio Analysis and Preparations ● Esports Production: Preparation and Live Action	● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor ● Innovative Designer ● Creative Communicator ● Global Collaborator
10-12	College Esports and Recruitment: Teacher-led ● Self-Directed Module(s) regarding college programs and esports & club opportunities	● Research what colleges offer for esports competition and course work for degrees. ● Explore career opportunities in esports related to the college experience. ● Practice behaviors that support Digital Citizenship and GPS. ● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ● Practice the writing process for content development. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor ● Creative Communicator ● Global Collaborator
13-15	**Content Production:** Live Action Preparations Teacher &/or Student-Led ● Esports Production: Preparation and Live Action to support production of the	● Build deeper application skills of core concepts and ideas about content production and esports. ● Develop project management skills through tournament planning. ● Explore career opportunities in esports related to content production and job shadowing. ● Practice behaviors that support Digital Citizenship and GPS. ● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding.

	school's esport team(s) events. ● Development of an esport tournament that is run either in class, schoolwide, or community wide. ● ePortfolio Analysis and Preparations	● Write informational texts and narratives for communication. ● Practice the writing process for content development. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor ● Innovative Designer ● Creative Communicator ● Global Collaborator
16-17	ePortfolio Analysis and Preparations: Student-led: ● Self-Directed Module(s) completion (as needed) ● ePortfolio Analysis and Preparations ● Esports Production: Preparation and Live Action	● Design and develop an eportfolio for colleges and/or careers. ● Explore career opportunities in esports. ● Practice behaviors that support Digital Citizenship and GPS. ● Grow a collaborative and inclusive esports culture. ● Read informational text for understanding. ● Write informational texts and narratives for communication. ISTE Standards ● Empowered Learner ● Digital Citizenship ● Knowledge Constructor ● Innovative Designer ● Creative Communicator ● Global Collaborator
18	ePortfolio Preparations: Student-Led	Continued from previous week.

*Esports Production: Live Action: Students must participate in at least 3 live events in at least 2 of the three categories: technical, promotional, or consumed content.

See Curriculum Modules directory for Details

One Semester Course

First Nine Weeks - **See Curriculum Modules directory for Details**

Week	Topic & Description	Outcomes
1-2	**Esports Culture Building:** Teacher-Facilitated & Student-Led • Esports History • Teamwork: Play and Teambuilders	• Create a supportive team esports culture. • Understand the core Global Professional Skills (GPS) that will be practiced throughout the course. • Learn history about esports and some professional organizations. • Read informational text for understanding. • Write informational texts and narratives for communication. ISTE Standards • Empowered Learner • Digital Citizenship • Knowledge Constructor
3	Digital Citizenship in Gaming Culture: • Teacher-led • Digital Citizenship Overview (ISTE) • Online Relationships • Security & Privacy • Digital Footprint • Bullying/Trolling • ePortfolios Introduction • Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	• Build understanding of digital citizenship. • Practice behaviors that support digital citizenship. • Grow a collaborative and inclusive esports culture. • Practice the core GPS: communication and collaboration. • Read informational text for understanding. • Write informational texts and narratives for communication. ISTE Standards • Empowered Learner • Digital Citizenship

Week	Topic & Description	Outcomes
4	Content Production: • Teacher &/or Student-Led • Content Production Introduction • Broadcasting: Journalism and Commentator (video & written) • Careers Connections • Self-Directed Module(s) completion for a broadcasting option (streaming) • Produce content for one of the school esports teams. (may request to focus on a pro or college team) • Develop and Use Critique Protocols • Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	• Understand core concepts and ideas about content production for esports. • Explore career opportunities in esports related to content production and job shadowing. • Practice behaviors that support digital citizenship and GPS. • Grow a collaborative and inclusive esports culture. • Read informational text for understanding. • Write informational texts and narratives for communication. • Practice the writing process for content development. ISTE Standards • Empowered Learner • Digital Citizenship • Knowledge Constructor • Innovative Designer • Creative Communicator • Global Collaborator
5	Content Production: Teacher &/or Student-Led • Self-Directed Module(s) completion for a Broadcasting option (streaming) • Produce and publish content for one of the school esports teams. (may request to focus on a pro or college team) • Practice Critique Protocols • Promote publications using hashtags in social media tools • Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	Continued from previous week.
6	Operations Overview and related careers:	• Understand core concepts and ideas about operations for esports organizations.

Week	Topic & Description	Outcomes
	• Understand career opportunities in gaming organizations Student-led • Self-Directed Module(s) completion for game analysis (student choice of pro, college, or high school esports) • Esports Production: Job Shadowing & assisting (Technical Support, Consumed Content, Team Support)	• Explore career opportunities in esports related to content production and job shadowing. • Practice behaviors that support Digital Citizenship and Global Professional Skills (GPS). • Grow a collaborative and inclusive esports culture. • Read informational text for understanding. • Write informational texts and narratives for communication. ISTE Standards • Knowledge Constructor • Computational Thinker • Creative Communicator • Global Collaborator
7	Strategies/Tactics: Coaching/Analytics Game Theory Student choice (continued from previous week Self-Directed Module(s) completion for game analysis (student choice of pro, college, or high school esports) Esports Production: Job Shadowing & assisting (Technical Support, Consumed Content, Team Support)	Understand core concepts for game analysis and mechanics. Evaluate how analysis is used in the professional world of esports. Practice behaviors that support Digital Citizenship and GPS. Grow a collaborative and inclusive esports culture. Read informational text for understanding. Write informational and persuasive texts for communication. Practice the writing process for content development. ISTE Standards Empowered Learner Knowledge Constructor Computational Thinker Creative Communicator Global Collaborator
8-9	ePortfolio: Development: Teacher-led ePortfolio Analysis and Preparations: Student-led: Self-Directed Module(s) completion (as needed) ePortfolio Analysis and Preparations Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	Design and develop an ePortfolio for colleges and/or careers. Explore career opportunities in esports. Practice behaviors that support digital citizenship and GPS. Grow a collaborative and inclusive esports culture. Read informational text for understanding. Write informational texts and narratives for communication. ISTE Standards Empowered Learner Digital Citizenship Knowledge Constructor Innovative Designer

Week	Topic & Description	Outcomes
		Creative Communicator Global Collaborator

*Esports Production: Job Shadowing & assisting (Technical Support, Consumed Content, Team Support): Students must participate in 4 sessions and experience each of the three categories. Students choose the category for the final session.

See Curriculum Modules directory for Details

Second Nine Weeks - **See Curriculum Modules directory for Details**

Week	Topic & Description	Outcomes
1	Business Overview: Teacher-Led • Marketing, Promotional, Finance, and Organizational Structure Student-Led • Self-Directed Module(s) on a Business Area • Esports Production: Job Shadowing & Assisting (Technical Support, Consumed Content, Team Support)	• Understand core concepts for the business side of organizations like esports. • Develop core skills for networking and building connections. • Practice behaviors that support digital citizenship (i.e. digital footprint) and Global Professional Skills (GPS). • Grow a collaborative and inclusive esports culture. • Build skills in research and informational literacy. • Read informational text for understanding. • Write informational and persuasive texts for communication. ISTE Standards • Empowered Learner • Digital Citizenship • Knowledge Constructor • Global Collaborator
2-4	**Content Production:** Live Action Preparations Teacher &/or Student-Led • Esports Production: Preparation and Live Action to support production of the school's esport team(s) events. • Development of an esport tournament that is run either in class, schoolwide, or community wide. • ePortfolio Analysis and Preparations	• Build deeper application skills of core concepts and ideas about content production and esports. • Develop project management skills through tournament planning. • Explore career opportunities in esports related to content production and job shadowing. • Practice behaviors that support Digital Citizenship and GPS. • Grow a collaborative and inclusive esports culture. • Read informational text for understanding. • Write informational texts and narratives for communication. • Practice the writing process for content development. ISTE Standards • Empowered Learner • Digital Citizenship • Knowledge Constructor • Innovative Designer • Creative Communicator

Week	Topic & Description	Outcomes
		• Global Collaborator
5	Social Media & Branding: Teacher &/or Student-Led • Digital Footprint & Branding: Personal & Professional • Self-Directed Module(s) completion • ePortfolio Analysis and Preparations	• Understand core concepts and ideas about marketing through social media and branding. • Explore how esports organizations use social media and branding as part of their business. • Practice behaviors that support digital citizenship and GPS. • Grow a collaborative and inclusive esports culture. • Read informational text for understanding. • Write informational text for communication. ISTE Standards • Empowered Learner • Digital Citizenship • Knowledge Constructor • Innovative Designer • Creative Communicator • Global Collaborator
6-7	College Esports and Recruitment: Teacher-led • Self-Directed Module(s) regarding college programs and esports & club opportunities	• Research what colleges offer for esports competition and course work for degrees. • Explore career opportunities in esports related to the college experience. • Practice behaviors that support Digital Citizenship and GPS. • Grow a collaborative and inclusive esports culture. • Read informational text for understanding. • Write informational texts and narratives for communication. • Practice the writing process for content development. ISTE Standards • Empowered Learner • Digital Citizenship • Knowledge Constructor • Creative Communicator • Global Collaborator
8-9	ePortfolio Analysis and Preparations: Student-led:	• Design and develop an eportfolio for colleges and/or careers. • Explore career opportunities in esports.

Week	Topic & Description	Outcomes
	• Self-Directed Module(s) completion (as needed) • ePortfolio Analysis and Preparations • Esports Production: Preparation and Live Action	• Practice behaviors that support Digital Citizenship and GPS. • Grow a collaborative and inclusive esports culture. • Read informational text for understanding. • Write informational texts and narratives for communication. ISTE Standards • Empowered Learner • Digital Citizenship • Knowledge Constructor • Innovative Designer • Creative Communicator • Global Collaborator

*Esports Production: Live Action: Students must participate in at least 3 live events in at least 2 of the three categories: technical, promotional, or consumed content.

See Curriculum Modules directory for Details

Alignment of ISTE Standards for Students

The table below shows where each ISTE standard is addressed through rich student learning experiences.

ISTE Standard	Module Alignment
Empowered Learner	• Esports Culture Building • Digital Citizenship in Gaming Culture • Content Production • Strategies/Tactics • E-portfolio • Business Overview • Social Media & Branding • College Esports and Recruitment
Digital Citizen	• Esports Culture Building • Content Production • Digital Citizenship in Gaming Culture • E-portfolio • Business Overview • Social Media & Branding • College Esports and Recruitment • Fitness and Nutrition for Esports • Women and Gender Equity in Sports Culture • Mindfulness and Mental Health for Esports
Knowledge Constructor	• Esports Culture Building • Content Production • Operations Overview and related careers • Strategies/Tactics • E-portfolio • Business Overview • Social Media & Branding • College Esports and Recruitment • Fitness and Nutrition for Esports • Women and Gender Equity in Sports Culture • Mindfulness and Mental Health for Esports
Innovative Designer	• Content Production • E-portfolio • Social Media & Branding
Computational Thinker	• Operations Overview and related careers • Strategies/Tactics
Creative Communicator	• Content Production • Operations Overview and related careers

	• Strategies/Tactics • E-portfolio • Social Media & Branding • College Esports and Recruitment • Fitness and Nutrition for Esports • Women and Gender Equity in Sports Culture • Mindfulness and Mental Health for Esports
Global Collaborator	• Content Production • Operations Overview and related careers • Strategies/Tactics • E-portfolio • Business Overview • Social Media & Branding • College Esports and Recruitment

Computer Science Standards - Alignment by Modules

Networks & Internet: Cybersecurity	**Data & Analysis:** Storage	**Data & Analysis:** Collection, Visualization, & Transformation	**Data & Analysis:** Inference & Models
Digital Citizenship in Gaming Culture Portfolio Analysis and Preparations Social Media & Branding	Content Production: Exploring Opportunities Portfolio Analysis and Preparations Content Production: Live Action	Content Production: Exploring Opportunities Team Strategies/Tactics Business Overview Social Media & Branding Fitness and Nutrition for Esports Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports	Content Production: Exploring Opportunities Team Strategies/Tactics Content Production: Live Action Fitness and Nutrition for Esports
Algorithms & Programing: Algorithms	**Impacts of Computing:** Culture	**Impacts of Computing:** Social Interactions	**Impacts of Computing:** Safety, Law, & Ethics
Team Strategies/Tactics	Esports Culture Building Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Operations Overview Portfolio Analysis and Preparations Business Overview Content Production: Live Action Social Media & Branding Fitness and Nutrition for Esports Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports	Esports Culture Building Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Operations Overview Team Strategies/Tactics Portfolio Analysis and Preparations Esports Job Shadowing Experiences Business Overview Content Production: Live Action Social Media & Branding College Esports and Recruitment Fitness and Nutrition for Esports Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports	Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Content Production: Live Action Social Media & Branding

Reference: **Computer Science Standards** (**pdf chart**)

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Henrico School Division. Henrico 21 TIP Chart. http://blogs.henrico.k12.va.us/21/tip-chart/

Goslin, Austen. “More than 80 million people watched the Worlds 2017 semifinals”. Rift Herald. December 19, 2017. https://www.riftherald.com/lol-worlds/2017/12/19/16797364/league-of-legends-worlds-viewers-statistics

“Average TV viewership of NBA Finals games in the United States from 2002 to 2018 (in millions)”. Statista. https://www.statista.com/statistics/240377/nba-finals-tv-viewership-in-the-united-states/

“Number of unique viewers of League of Legends Esports championship finals from 2013 to 2018 (in millions)”. Statista. https://www.statista.com/statistics/518126/league-of-legends-championship-viewers/

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McCarthy, Dagan. Esports for Schools. https://docs.google.com/spreadsheets/d/15V0d5QGgQh68OEK80Eqa1y3A8xZlGLM1TweZ_mFA9DQ/edit?usp=sharing

Videos

- Free to Play. Steam. https://www.imdb.com/title/tt3203290/
- All Work All Play. Documentary. https://www.imdb.com/title/tt4654328/

- 7 Days Out, ep. 6. Netflix. https://www.netflix.com/title/80207124
- A New Hero: The Rise of College Esports. https://www.youtube.com/watch?v=-WrSY6ZGZMs
- The Score Esports. (playlists) https://www.youtube.com/channel/UCSCoziKHqjqbox3Fv3Pb4BA/playlists
- RIVALS: E-Sports' Oddest Rivalry - VICE World of Sports. Vice World of Sports. https://www.youtube.com/watch?v=Dth2Tm9apDw&t=

ESPORTS CURRICULUM MODULES

The following section includes all curriculum modules for this course. The modules may be reordered to best suit planning, however it is recommended that the modules stay with the respective structures.

These curriculum modules can be selectively pulled for use in an esports club experience. Each "day" could be the focus for a given week, if a club meets once a week.

Esports Modules List

Esports Culture Building

(2 weeks)

Outcomes

- Create a supportive team esports culture.
- Understand the core Global Professional Skills (GPS) that will be practiced throughout the course.
- Learn history about esports and some professional organizations.
- Read informational text for understanding.
- Write informational texts and narratives for communication.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor

Resources: See Appendices

Description

As the first curriculum block, students and teachers will co-create a professional esports culture. The activities and experiences are intended to introduce and build Global Professional Skills (GPS) that will be developed throughout the course. These skills include:

- Communication and Collaboration
- Critical Thinking
- Creativity
- Research & Information Fluency

Students will develop an understanding of these skills through a variety of culture building experiences and from learning about esports history.

Suggested Agenda

The following is a list of the core concepts and activities. The order of events is a suggested approach, however, after co-creation of norms, you may opt to change or customize an order of events that better reflects your students' needs.

Develop Classroom Norms - 1.5 to 2 sessions (Resource)

Run students through 1-2 teambuilders as a way to warm-up on the topic: What are the qualities and skills needed to ensure group success on any task?

Through a "Think-Pair-Share" record student responses into a draft list of possible norms. The final list that is created should include:

- Language focused on what is wanted, instead of what to avoid: does not include words like "No" or "Don't"
- A focus on behavior that is specific, observable, and positive
- "Student-friendly" language
- A maximum of seven statements

Students vote on the final list and sign the chart that contains the norms.

Implementation: Norms are formally reviewed at the start of a lesson at least 1-2 times each week and reflected on at the end of a lesson at least 2-3 times each week.

Introduce the Global Professional Skills - 2 sessions (Resource)

Establish a common language for the Global Professional Skills (GPS). Throughout the course, students will self-assess and be assessed on their growth in these skills:

- Communication and Collaboration
- Critical Thinking
- Creativity
- Research & Information Fluency

Introduce these skills in context of play, team builders, norms creation, and esports analogies. In groups, have students unpack each skill and create working definitions. Here is a suggested approach that emphasizes student-led learning:

1. Post six stations (collaboration and communication would each be a station). Each station has a sign with the name of the GPS. Students self-select their station of choice. Limit the number of participants for each station so that all stations get covered by an approximate equal balance of members. For example, if groups cannot exceed 4, then the 5th person to join must move to a different station with less than 4.

2. Each team develops a working definition using a protocol like "Making Meaning" by Ron Ritchhart, et al. The final definitions are posted and used with the related coaching charts.

3. Share the coaching charts, preselected prior to the start of the course, for how students will practice and reflect on these GPS skills. Here is a resource of premade models to use or adapt. These charts are for coaching and self-assessing.

Teambuilders

Each day of the first week and 2-3 times during the second week, use teambuilders giving students a focus from the norms and a coaching chart for a GPS. After the activity, students need to reflect on their progress and challenges with demonstrating the GPS and/or following the focus norm. Teambuilders can range from 5 minutes to an entire period. The value from these experiences is the post-action reflection about both personal and group achievement and failures.

- Teampedia
- Survival Scenarios
  - Survival Scenario Exercise
  - Team Building Exercises – Problem Solving and Decision Making
  - Team Building Games That Really Teach Teamwork

Gaming - 2 times per week for the first 2 weeks (play)

Playing esports games is done for the same purpose as the team building activities. Use the training tool in games like League of Legends and Smite to set up different scenarios. Training tools in some games enable a coach to custom build a scenario and to control the time of the experiences. Have teams play with advantages in some matches and with big disadvantages in other matches. Intentionally form the teams for balance and/or to greatly advantage one side over the other. The value to these experiences is the post-analysis of player behavior as related

to the focus GPS. Each player should assess themselves and their team using the specific criteria of the focus coaching charts.

History of Professional Esports - 2 to 3 sessions - (Supporting References)

Having a common background about the evolution of esports will help students understand the similarities and differences between traditional and "e" professional sports. Teachers should provide an overview of the three aspects: Competitive (players, coaches, and strategy), Production (casting and content development), and the Business side (investment, accounting, and marketing).

Use video clips and articles to show the history of esports. It is recommended that students are tasked to review clips and articles to capture significant characteristics and events in esports history. Have students share the key ideas from provided references and those they find based on interests in preferred esports for group consumption and context. Here are some recommendations of content to review for composing the introduction by the teacher:

- All Work All Play: The Pursuit of eSports Glory
  Looks at the history of professional esports from the perspective of Extreme Masters, an organization that runs tournaments and championships for some of the professional esports. The film uses League of Legends to give insights into all three aspects of esports that are the focus of the course: Competitive, Content Production, and Business. Currently available on Netflix and Amazon Prime.
- Free to Play
  Follows three players through Dota 2 (league) to the Grand Finals Tournament. Shows an analysis of the transition of esports from "gaming" to a professional field of work. Besides the competitive side, the content production experience presents prevalent examples for class discussions. Currently available on Youtube and Steam.
- A New Hero: The Rise of College Esports
  Provides insights into the college scene through the lens of the game "Heroes of the Storm". In 2018, the Heroes of the Storm professional league was shut down by Blizzard, leaving many professional players looking for other work. Those in the area of content production and business may have had more opportunities to continue in esports with a different game than the players.
- Esports: Inside the relentless training of professional gaming stars
  Explores the inside life and grind of what it takes to become an esports player. Looks at the history of esports across several different games. Currently available on Youtube.

- RIVALS: E-Sports' Oddest Rivalry - VICE World of Sports
  Looks at two League of Legends stars and their controversial professional relationship. The documentary provides insights into the training and lifestyles of players and dealing with the public on social media. Currently available on Youtube.

Recommended Approach

1. Show a 2-3 minute clip or excerpt from an esports vod (recorded game) or documentary. Have students share what they saw that looked familiar from traditional sports and from their experiences (use a clip from the list above).
2. Facilitate a K-W-L or Know/Need to Know activity
   Capture what students know about esports and what questions they want to find answers about esports.
3. Use 1-2 clips or excerpts, five minutes maximum for each, to show aspects of esports. Use them to introduce esports as not just about professional players, but a broader context of competition, plus content production, and business.
4. Put students into teams of 3-4. Provide them with video clips and articles. Give them the following charge for research:

   a) Review 2-3 sources (at least one video and one article) and take notes of any information that you find important to understanding some aspect of esports. (15-20 minutes)
   b) As a team, collate the researched data for the important takeaways about esports. (10 minutes)
   c) Have teams report out their findings. The teacher or several students record the results on a board, charts, or collaboration file. Organize ideas into three categories: Competition, Content Production, and Business:
      i. Conduct two round robins where each team has a turn to share one item.
      ii. After the second round robin, let teams speak freely, in any order, with additional ideas that they found.
   d) The teacher highlights some of the key ideas and fills in any gaps in understanding that were not addressed.

5. Put students into groups of 3 or 4 and conduct a reading protocol using 1-2 articles about the professional world of esports. Most esports websites have a “News” section to find articles, as well as an online search using the name of the esports and “news” as search terms. Or, run a discussion protocol like the Spider (Harkness) Discussion, Fishbowl, or Socratic Seminars.

Digital Citizenship in Gaming Culture

(1 week)

Outcomes

- Build understanding of digital citizenship.
- Practice behaviors that support digital citizenship.
- Grow a collaborative and inclusive esports culture.
- Practice the core GPS: Communication and Collaboration.
- Read informational text for understanding.
- Write informational texts and narratives for communication.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor

Resources: See Appendices => Digital Citizenship Resources)

Digital Citizenship Overview (ISTE) - 4 sessions

Esports is part of the online gaming culture. There are opportunities and challenges with engaging in the various aspects that can be positive and negative. Each of the following are part of the four components for digital citizenship per the ISTE standards for Students. They are all important to the practice of professional behavior in esports and gaming culture. Teachers are encouraged to decide how they want to allocate time for each item. The tasks can be combined to dedicate more or less time depending on the need.

Tasks:

Part of the experience includes students practicing the skills for digital citizenship. Have students complete the following:

1. Research their own digital footprints to determine how they are representing themselves. Compose a reflective assessment of “The Good”, “The Questionable” and “The Problematic”. They will include solutions to the areas needing to be addressed.
2. Create a screen name to be used for professional accounts and activities.
3. Practice communications that are positive, constructive, and professional through a variety of online activities.

Topics to explore include:

1. Digital Footprint

Cultivate and manage their digital identity and reputation and be aware of the permanence of their actions in the digital world. (ISTE)

What we post online in comments and chats defines us. Being positive, respectful, and/or professional gives others one perception of who we are. Being negative, toxic, and/or unprofessional creates a different perception. Help students understand the difference and impact that each has on a person’s digital footprint or resume that employers, universities, and esports recruiters review when considering selection.

Resources:

- 21Things4Students: Thing 5 - Digital Footprint
- Digital Footprint Video Playlist Here is a collection of videos for reflective conversation with students. CSM has more here.
- Modeling Constructive Online Behavior is an article that gives good insight on how teachers can model and show students good practice through various tools. Edutopia offers more resources.
- 10 Things Your Students Should Know About Their Digital Footprints
  This article provides rich advice for the “Why” and “how” of Digital Footprints.

2. Online Relationships and Bullying/Trolling

Engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices. (ISTE)

Whereas digital footprints create a resume for professional opportunities, our behavior affects relationships online. How we treat others impacts the networks we can develop. What we say

and do signals to others our character: Can this person be trusted? Is this someone to work with or to team up? The other important element is how to deal with others who are toxic and/or bullies online. How we deal with these personas both in support of ourselves and others is important. Important topics to explore:

- Gender inequality in gaming where females are more likely to face toxicity in the gaming world because of their gender, regardless of their skill level.
  - Esports' urgent need for visible gender diversity
  - One-third of UK women gamers report abuse or discrimination from male gamers
  - Female Overwatch League host receives death threats over Women's Day tweet
  - Women navigate toxicity, other barriers in esports
- Dealing with trolling or griefing
  Have students discuss the solutions and explore other solutions.
  - 15 Video Game Trolls Who Totally Got What They Deserved
  - How Gaming Helped Launch the Attack of the Internet Trolls
  - GamerGate Controversy
- Articles about confronting bullying:
  - Bullying Prevention: Students Share Dos and Don'ts
  - Student Fights Bullying with Positivity
  - Resources to Fight Bullying and Harassment at School
  - What Bullying Looks Like in the Digital Age and How to Prevent It
  - 5-Minute Film Festival: Preventing Bullying

Resources:

- 21Things4Students: Thing 14 - Social Networking and Thing 6 - Cyber Safety
- The New Digital Citizenship video
  Here is a video overview by (ISTE) about Digital Agent, Digital Interactor, and Digital Self.
- Everfi - Ignition
  This free resource for teachers offers learning about various topics on cyber safety, including cyber bullying.

3. News Media and Literacy

Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. (ISTE)

Intellectual property rights are important to know when planning content production. Free use of other's content under the guise of educational purposes is largely a myth, which results in use of content without the required permission. Copyright and creative commons permissions are important to understand for using other people's content and for the content that an author wishes to publish and share.

Resources:

- 21Things4Students: Thing 9 - Search Strategies
- Creative Commons Licenses
- Henrico 21: Research and Information Literacy
  This school district developed a rubric for effective teaching and learning of skills for Research and Information Literacy. It includes a database of lessons and units that includes this specific focus.
- Common Sense Media Lessons and Videos:
  - Improving Research Skills with Effective Keywords
  - Understanding "Fair Use" in a Digital World
  - The 6 Online Research Skills Your Students Need

4. Security & Privacy

Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online. (ISTE)

Privacy exists when personal information is not shared. This becomes challenging with use of social media and online gaming communications. It is important to consider what is shared for protecting one's privacy and staying secure. What a person posts can be mined for data for finding out much more about the person in question.

Resources:

- 21Things4Students: Thing 6 - Cyber Safety
- Article Review:
  - Protecting Student Privacy on Social Media
  - What Your Students Really Need to Know About Digital Citizenship
  - CSM: Internet Safety
  - Raising Digital Citizens
- Digital Citizenship and Internet Safety: Digital Citizenship
  This site includes a wealth of information and resources on multiple aspects of digital citizenship. Its theme is about safety and privacy.
- Be Internet Awesome/Interland
  This guide provides helpful tips to discuss and guide students on safe practices. Some topics include: “Secure Your Secrets” and “Don’t Fall for Fake”

ePortfolio Introduction (1 session)

As students develop content for production and competition, they will select works to include in a digital ePortfolio. This portfolio can be used to demonstrate play and/or production performances for college and professional esports organizations. It is recommended to involve external stakeholders from universities and professional organizations to review and provide feedback of the ePortfolios once at the end of each nine weeks.

The ePortfolios should include the sample work, student reflection about the work and their learning from it, possibly revisions with reflections about changes made, and feedback from external stakeholders.

Esports Production Job Shadowing: View details here.

Content Production: Exploring Opportunities

(2 weeks)

Outcomes

- Understand core concepts and ideas about content production for esports.
- Explore career opportunities in esports related to content production and job shadowing.
- Practice behaviors that support digital citizenship and GPS.
- Grow a collaborative and inclusive esports culture.
- Read informational text for understanding.
- Write informational texts and narratives for communication.
- Practice the writing process for content development.

ISTE Standards

- Empowered Learner
- Digital Citizenship

Resources:

- See Appendices
- Esports Production Job Shadowing: View details here.
- Esports references and VODs
- Review the Content Production Rubric

Content Production Introduction

Content consumption through images and video has a rich history. Sporting events have played a major role in the relationship between people and watching content. Iconic events, particularly in sports, are remembered and accessible for fans to rewatch long past the live event. Some examples include: Mohammad Ali's Rumble in the Jungle, Pele soccer moments, Patriots

Superbowl Comeback, Team Liquid vs. TSM 2019 League of Legends Spring Finals, Smite highlight moments, and the decade reign by 5 players known as the Gods of Melee.

Video consumption today comes in two formats: streaming live and video on demand (VOD). Now anyone can stream or record content for a variety of purposes such as to promote ideas, entertain others through game play, show sporting events, and commentate on games. Also, content can take the form of articles published on blogs and other social media tools. Finally, podcasts and vodcasts are other options with potential market share for content creation and publication. Anyone with a phone, tablet, or computer has the tools to produce their own content. Practicing and honing these skills can prepare one for producing content for esports fans.

Activities for Students:

- Watch short clips from videos of esports matches and reporting. Identify the different roles and purposes within the work behind production. For example, roles may include:
  - Casters
  - Game analysts
  - Pre and post commentary
  - Entertainment through personal play
  - Player highlight reel
  - Interviews
  - Video Resources
    - League of Legends: https://watch.lolesports.com/vods
    - Smite: https://www.youtube.com/channel/UCuXuve8eXPmwCkrOF32JpjQ
    - Overwatch: https://overwatchleague.com/en-us/videos
- Discuss and reflect on the roles and related skills needed. Also, unpack the type of tools needed to produce simple to complex content.
- Introduce and explore key terms including:
  - Broadcasting: journalism and commentator roles (video and written)
  - Audience focus
  - Purposes and Themes

Careers Connections

Introduce students to the various career opportunities in the esports world. There are many jobs to consider and plan while engaging in various experiences in preparation. Use the experiences from this course to add products into the ePortfolio, which can be used for applications for internships and jobs.

End in Mind: Running an Esports Event

Production for esports includes many components. Some are essential to the competition between players, and others are optional based on the interest areas of the students to contribute to the esports Organization. The following is a breakdown of such events into three phases: Pre-Production, Production, and Post-Production. By the middle of the second marking period, students will work in teams to support components that crossover two or all three phases. These experiences will provide rich artifacts and reflections for student portfolios. Here is the information that students will need as a common base for understanding the opportunities and experiences they may explore.

	Phase 1: Pre-Production	Phase 2: Production	Phase 3: Post-Production
Technical Support	• *Setup and test: computers, video recording, mics, bandwidth, etc.	• *Monitoring equipment functions, such as bandwidth, video recording, and micing • Set up camera angles and game map view options	• Camera shots/movement of end game reactions by players and fans • Micing for interviews • *Breakdown of equipment
Promotional	• *Social media marketing, including hashtags, user surveys, announcements • Video trailers • Posters, flyers, and listservs	• Commercials during breaks between games • Analyst/Caster commentary during breaks between games	• *Social media marketing, including hashtags, user surveys, announcements • Video trailers • Posters, flyers, and listservs
Consumed Content	• *Articles/videos/podcasts about matchups, esports news (pros, college, and HS), meta updates	• *Casting the games • Social media updates via hashtags and images (live)	• Analyst desk • *Caster summaries • Player/coach interviews • *VODs/Articles/Podcasts

	• Analyst desk (live or recorded) • *Casters (live on game day) - video and audio • Player, coach, fan interviews (live or recorded)		– Highlight reels – Sports talk about the match and the sports at pro & college level – Analysis of the match – Summary of the match – Other esports related content
Team Support	• *Scouting report on the other team • Scouting report on home team players • *Analysis on meta updates • Situational scrimmaging • Create and execute set plays	• *Analysis: Adjustments made between games	• Game tape: Analysis of performance by the team and by position • *Player reflection on personal and team performance

* These elements require coverage by students. All other items are subject to needs and interests based on conversations by students, teachers, and coaches.

By the second half of the second nine weeks, the above production phases will be entirely student-run by the course participants along with student volunteers. While all phases and categories will be addressed, not all items in each category will be used. The ones selected will be a combination of needed areas and items that are interest-based. For example, during Phase 2: Production, casting the games is necessary, but there might not be live tweeting of the games through hashtags. During Phase 3: Post-Production, there may be vod highlight reels and an article that summarizes the match, but no other items on the list are covered.

Self-Directed Module for a Broadcasting Option:

Produce content for one of the school esports teams
(May request to focus on a pro or college team)

Students will choose from each category to frame their production work. Each student will have a final product that is uniquely theirs to demonstrate their skills.

Esports Level	Audience	Medium	Focus
1. School Team/League 2. College Team/League 3. Professional Team/League	A. General Audience B. Game Fans C. Choose	A. Live Stream B. VOD C. Podcast/Vodcast D. Article	A. Casting B. Pre/Post Analysis C. Highlights D. Reporting

Here is a breakdown of each category:

Esports Level
Choose a team level to produce content. It is recommended that the school esports team(s) have some coverage if one exists. This will give students an easy entrance into content production and reduce possible issues with copyright. However, allowing students to choose a college or professional team can be a motivating factor for producing high quality work. 1. School Team/League 2. College Team/League 3. Professional Team/League
Audience
Choosing an audience will impact the way content is presented. A general audience may likely have less understanding of the game than game fans who may be very knowledgeable. Assumptions of understanding for fans of esports may leave a general audience feeling lost and confused. The third option gives students the opportunity to identify a different audience that they would prefer to focus on. Allowing students to choose their audience builds engagement. It also helps students plan for their intended audience. A. General Audience B. Game Fans C. Choose
Medium
All medium formats require preparation. The result of researching will lead to a script, detailed outline, interview questions with possible answers or a combination of the above. Regardless of the chosen option, each will go through several rounds of feedback and revisions. If games are recorded or excerpts used, students must show that copyright is followed. A. Live Stream Record an event live and include commentary. This may be of an esports event or your

own match. Make sure a copy of the recording is captured to share afterwards. There should be no editing of the event itself. However, an introduction and closing scene may be added to the recording. This will require research and talking points about the teams, players, and possible strategies.

B. Video on Demand (VOD)

Record the esports game. The material can be edited based on the focus. A script will be required. At least 50% should be followed.

C. Podcast/Vodcast

The material can be edited based on the focus. A detailed outline of talking points is required. A transcript of the session must be made available.

D. Article

The material can be edited based on the focus.

Focus
Each option focuses on a different aspect of esports production. Choose the one that has the most interest.

A. Casting

Explain what's occurring in the game as it happens or afterwards in a reflective approach. Be specific and use knowledge of the game, the players, the team, win conditions, and strategies (ie. macro). Live or pre-recorded, this gives the target audience the experience of esports casting.

B. Pre/Post Analysis

Before a game, make predictions based on analysis of the teams, the players, and the current game meta. Who will win or lose? What are the win conditions or strategies that could be the difference? Who are the key players or champions and why? Or after a game, analyze the performance of the competitors. Why did one team win or lose? What were their successful strategies that made the difference? Who were the key players and champions and why? What adjustments should each team make to improve for their next match?

C. Highlights

Identify the key plays in the match and create a narrative using those moments to tell a

story or support analysis. Or, collect the best plays by one player and showcase their talents from the game.

D. Reporting
Give an account of the game. Include interviews from players and/or coaches (interviews may be live or from print or recordings). Craft a narrative supported by the actions from the game and the voices of those interviewed.

Module Production Phases

Students will develop a product of their individual work. However, they will also work in teams to research, provide role support (such as extra commentators), and give feedback through different phases of development. Here is a suggested guide for this project:

Phase 1: Choose: Esports level, Audience, Medium, and Focus (Day1: 15 minutes)

Use the table above to construct the core elements for producing this project. Students should choose components based on their genuine interest. For students who are undecided on the esports level, steer them to covering the school's esports team.

Phase 2: Conduct Research and an Author's Study (Day 1: 25 minutes plus homework plus 20 minutes the next day)

Students will research their chosen team to learn about their history as an organization in the chosen esports, the players, and the esports itself. Also, conduct an "author study" based on the chosen focus. For example, if casting, choose 2-3 casters. Watch them at work in VODs and take notes on their strengths, tendencies, and potential weaknesses. It's important to study at least two so that the contrast will reveal the strengths and potential weaknesses each has.

This information should be collected in approved note-taking strategies. It is best to offer at least two options such as Cornell note-taking or Two-Column note-taking. These notes will be used by the student to create a proposal for their production. Using the research notes, they will complete a final proposal, which will explain each component: Esports level, Audience, Medium, and Focus.

Phase 3: Feedback Round One – (Day 2: 3 rounds of 8 minutes in groups of 3 (Resource))

Students will share their pitch for their production idea. It will include the information from phase 1 and key learnings from phase 2. Participants will identify what they like or think that works about the idea and what areas may need more development (concerns). After this session, the "author" of the proposal will compose a reflection sharing what affirmations they appreciated and what areas of concerns they will explore to develop more. The final proposal will be revised.

Protocol

Step	Description	Time
1.	Author presents their plan/product. Address all components. May also share a question for feedback. Audience listens and takes notes.	3 minutes
2.	Participants ask clarifying questions for more information. Author responds.	1 minute
3.	Participants shares what they like about the plan/product and/or what they think works well. Author listens and takes notes.	1 minute
4.	Participants shares concerns about the plan/product regarding what may need more development or explanation. Author listens and takes notes.	1 minute
5.	Author and participants discuss possible next steps and ideas.	1 minute

Phase 4: Planning and Scripting (Day 3: 20 minutes for planning and 25 minutes for scripting, plus homework)

Students will plan an outline or storyboard for their production. Using their research, they will script or detail their outline in preparation of the content.

Phase 5: Production (prototype) (Day 4 or optional weekend (Resource))

Students will record or write their prototype draft. This should be timed to happen the day before the weekend so that students have the option to revise and redo over the weekend if they choose or if the work is assigned.

Phase 6: Feedback Round Two (Day 5 (Resource))

Students in small groups will review the production. Feedback will be given based on the provided criteria, such as:

1. Clarity and accuracy of the content
2. Organized flow of the content from the beginning, middle, and end
3. Alignment of content to the target audience
4. Alignment of the medium and the focus

Suggest using the same protocol as previously:

Protocol

Step	Description	Time
1.	Author presents their plan/product. Address all components. May also share a question for feedback. Audience listens and takes notes.	3 minutes
2.	Participants ask clarifying questions for more information. Author responds.	1 minute
3.	Participants shares what they like about the plan/product and/or what they think works well. Author listens and takes notes.	1 minute
4.	Participants shares concerns about the plan/product regarding what may need more development or explanation. Author listens and takes notes.	1 minute
5.	Author and participants discuss possible next steps and ideas.	1 minute

After the feedback rounds, authors plan their edits for a final production.

Phase 7: Final Production (Days 5 and 6)

Students will produce a new draft of their production, including at least some of the feedback from the previous phase.

Phase 8: Publication and Final Reflection (Day 7)

Have students upload their final products. Put students into teams to watch 1-3 videos based on the length of the production, and post comments that are positive and professional. Prior to the viewings remind students about digital citizenship regarding relationships and professionalism.

Have students brainstorm and develop a list of 3 hashtags that will be used to promote the publications. Publications should be linked to a blog or google docs. The link to the blog or Google Docs will be promoted by the teacher and students on their respective social media.

Operations Overview

(1 week)

Outcomes

- Understand core concepts and ideas about operations for esports organizations.
- Explore career opportunities in esports related to content production and job shadowing.
- Practice behaviors that support digital citizenship and Global Professional Skills (GPS).
- Grow a collaborative and inclusive esports culture.
- Read informational text for understanding.
- Write informational texts and narratives for communication.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor
- Innovative Designer
- Creative Communicator
- Global Collaborator

Resources:

- See Appendices
- **Esports Production Job Shadowing**: View details here.
- Esports references and vods

Operations: Positions (3 sessions)

Sports operations have many facets to support their players for team success. Competing requires players and coaches, however that is only the visible part of the iceberg. A successful professional organization includes more staff resources that directly impact the preparations for team competition. Some examples include:

- Coaching staff: develop players on the team, develop strategy, and manage players growth into a cohesive team.
- Analytics: reviewing, analyzing, and synthesizing performance data about their team and that of the opposing players. This may be a specialized coaching position. This position also exists in broadcasting.
- Scouts: seek new talent that could best fit within the team's needs.
- Chef: responsible for the meal preparation for the players. This person might work closely with a nutritionist to ensure the players are eating healthy and have energy to compete long hours.
- Fitness trainer: manages the exercise programs that players do to stay fit and healthy for long hours of training and competition.
- Sports psychologist or wellness coach: Monitors and supports the mental state of mind of the players. Helps players maintain a clear focus on competing and managing stress and distractions.

Tasks

1. Use articles, sports organization vods, and interviews (live and recorded) to guide students through an exploration of the different jobs in an esports organization that supports the team.
2. Students will create a list of 2-3 positions to explore and showcase one as a possible interest. Through either a vlog (1-2 minutes) or post (200-300 words), students will explain their choice.

Team Strategies/Tactics

(1 week)

Outcomes

- Understand core concepts for game analysis and mechanics.
- Evaluate how analysis is used in the professional world of esports.
- Practice behaviors that support digital citizenship and GPS.
- Grow a collaborative and inclusive esports culture.
- Read informational text for understanding.
- Write informational and persuasive text for communication.
- Practice the writing process for content development.

ISTE Standards

- Empowered Learner
- Knowledge Constructor
- Computational Thinker
- Creative Communicator
- Global Collaborator

Resources:

- See Appendices
- **Esports Production Job Shadowing**: View details here.
- Esports references and VODs

Game Analysis (9 sessions)

Whether you are a player, coach, or content creator, breaking down games and analyzing player and team decisions in a game are valuable assets. With much practice, deeper insights can be found for giving your team advantages and engaging viewers into the esports event. In

esports, each game has its own rules and style of play. Even games that are in a similar genre have rules and mechanics that act differently. One example would be: Smite, League of Legends, and Dota 2. However, there are common terms that can be applied to each to evaluate the successful, the good, and the poor teams and practices. Here are some terms to build a common base among students so that they can understand their game analysis regardless of their chosen esports:

- Avatar: the character that a player operates in the game during the competition. Some examples include: champions, gods, and cars.
- Game Theory: the actions of a player or team for success are dependent and impacted by the actions of the opposing player or team. (Oxford Dictionary)
- Macro Play: whole view of the game, such as the map or field or team for planning strategic moves to obtain an objective or victory.
- Micro Play: narrow view of one position in the map or field or player. Focus for strategic impact in that specific area to obtain an objective.
- Game Mechanics: components or elements of a game that shape the user experience and mechanisms for successful play. For example, buffs, equipment, skills, experience points, and levels.
- Objectives: opportunities in the game to complete a task that gives a player or team an advantage over the oppositions that may lead to victory.
- Win Conditions: based on a player or team's game assets, like champions and skills, a projection is made as to what steps need to be accomplished for objectives, macro and micro play, and other strategies that could lead to a victory, depending on the response by the opposing team.
- In-game Skills: player avatars receive skills and items (buffs) that can make them stronger over time.
- Strategies: these are the plans that players and teams develop and attempt to implement for gaining advantages and a victory over the other team. Strategies are often adapted once a game starts, depending on the responding counter strategies of the opposing player or team.

Analytics Tools

Currently the tools for analytics vary with the esports and apps change or adapt over time. Providing a list of options today could be outdated sooner or later. The best option is to do a search based on your esports. You should find programs, services, and apps that support your

program. For example, if your school participates in a PlayVS league, you can get data from them through your account.

Student-led Task

Students will conduct a game analysis of a match between two teams. They may place primary focus on one of the teams or player position.

Esports Level	Audience	Medium	Focus
• School Team • College Team • Professional Team	• General Audience • Game Fans • Coaches/Players	• VOD • Podcast/Vodcast • Article	• Pre/Post Analysis • Highlights

Here is a breakdown of each category:

Esports Level
Choose a team level to conduct analysis; allowing students to choose the team can be a motivating factor for producing high quality work. Students should pick a sport that they are familiar with the game mechanics, otherwise they may need more time to build their experience. 1. School Team 2. College Team 3. Professional Team
Audience
Choosing an audience will impact the way content is presented. A general audience may likely have less understanding of the game than game fans who may be very knowledgeable. Assumptions of understanding for fans of the esports may leave a general audience feeling lost and confused. The third option of coaches and/or players provides the most knowledgeable audience. This choice should only be selected by students with a deep

knowledge of the game. Allowing students to choose their audience builds engagement. It also helps students plan for their intended audience.

A. General Audience
B. Game Fans
C. Coaches/Players

Medium

All medium formats require preparation. The result of researching will lead to a script, detailed outline, interview questions with possible answers or a combination of the above. Regardless of the chosen option, each format will go through several rounds of feedback and revisions. If games are recorded or excerpts used, students must show that copyright is followed.

A. Video on Demand (VOD)
   Record the esports game. The material can be edited based on the focus. A detailed outline of talking points is required. A transcript of the session must be made available.
B. Podcast/Vodcast
   The material can be edited based on the focus. A detailed outline of talking points is required. A transcript of the session must be made available.

Focus

Each option focuses on a different aspect of esports production. Choose the one that has the most interest.

A. Pre/Post Analysis
   Before a game, make predictions based on analysis of the teams, the players, and the current game meta. Use the terminology provided above. What are the win conditions or strategies that could be the difference in winning or losing? What are the key macro and micro plays that are needed for victory such as objectives? Or, after a game, analyze the performance of the competitors. Why did one team win or lose? What were their successful strategies that were most impactful? What are the key macro and micro

plays that occurred as key turning points in the game? What adjustments should have each team made for a better performance?

B. Highlights
Identify the key plays in the match and create a narrative using those moments to tell a story or support analysis. Or, collect the best plays by one player and showcase their talents from the game. Address macro and micro plays that lead to success or opportunities to exploit. Identify the win conditions and how successfully they were implemented.

Module Production Phases

Students will develop a product of their individual work. However, they will also work in teams to research, provide strategy support, and give feedback through different phases of development. Here is a suggested guide for this project:

Phase 1: Choose: Esports level, Audience, Medium, and Focus (Day 1: 15-20 minutes)

Use the table above to construct the core elements for producing this project. Students should choose components based on their genuine interest.

Phase 2: Conduct Research for Game Analysis and Strategies (Day 1: 25 minutes plus homework plus Day 2)

Students will research their chosen team(s) in recordings of matches, taking notes based on the key strategic focus areas regarding player and team strengths, tendencies, and potential weaknesses. It's important to use the common vocabulary and find details to address each area.
This information should be collected in a notetaking guide. These notes will be used by the student to create their production. Using the research notes, they will complete a final proposal which will explain each component: Esports level, Audience, Medium, and Focus. Homework after each day would be to watch vods and complete the notes and the proposal form.

Phase 3: Feedback Round One (Day 3: 3 rounds of 9 minutes in groups of 3) (Resource)

Students will share their pitch for their analysis idea. It will include the information from phase 1 and key learnings from phase 2. Participants will identify what ideas in the analysis make sense and those areas that may need more development (concerns). After this session, the “author” of the proposal will compose a reflection sharing what affirmations they appreciated and what areas of concerns they will explore to develop more. The final proposal will be revised after the feedback protocol is completed.

Protocol

Step	Description	Time
1.	Author presents their plan for analyzing their chosen team, including the strategic terminology areas. Address all components. May also share a question for feedback. Audience listens and takes notes.	4 minutes
2.	Participants ask clarifying questions for more information. Author responds.	1 minute
3.	Participants share what works with the analysis proposal (I like…) and possible areas of more details needed (I wonder…). Author listens and takes notes.	2 minutes
4.	Author and participants discuss possible next steps and ideas.	2 minutes

Phase 4: Planning and Outlining (Day 4: 20 minutes for planning and 25 minutes for outlining)

Students will plan an outline or storyboard for their production. Using their research, they will detail their outline in preparation of the content.

Phase 5: Production (prototype) (Day 5)

Students will record or write their prototype draft. If recording, students will need to do at least 2 run throughs and choose the best one. Recordings should be between 4 and 9 minutes in length. Students can also revise as homework.

Phase 6: Feedback Round Two (Day 6) (Resource)

Students in small groups will review the production. Feedback will be given based on the provided criteria, such as:

1. Clarity and accuracy of the content
2. Organized flow of the content from the beginning, middle, and end

3. Alignment of content to the target audience
4. Alignment of the medium and the focus

Suggest using the same protocol as previously:

Protocol

Step	Description	Time
1.	Author presents their plan/product. Address all components. May also share a question for feedback. Audience listens and takes notes.	3 minutes
2.	Participants ask clarifying questions for more information. Author responds.	1 minute
3.	Participants shares what they like about the plan/product and/or what they think works well. Author listens and takes notes.	1 minute
4.	Participants shares concerns about the plan/product regarding what may need more development or explanation. Author listens and takes notes.	1 minute
5.	Author and participants discuss possible next steps and ideas.	1 minute

After the feedback rounds, authors will plan their edits for a final production.

Phase 7: Final Production (Day 7)

Students will produce a new draft of their production, taking into account the feedback from the previous phase.

Phase 8: Publication and Final Reflection (Day 8)

Have students upload their final products. Put students into teams to watch 1-3 videos based on the length of the production, and post comments that are positive and professional. Prior to the viewings, remind students about digital citizenship regarding relationships and professionalism.

Have students brainstorm and develop a list of 3 hashtags that will be used to promote the publications. Publications should be linked to a blog or google docs. The link to the blog or Google Docs will be promoted by the teacher and students on their respective social media.

Portfolio Analysis and Preparations

1st Nine Weeks and 2nd Nine Weeks

Outcomes

- Design and develop an eportfolio for colleges and/or careers.
- Explore career opportunities in esports.
- Practice behaviors that support digital citizenship and GPS.
- Grow a collaborative and inclusive esports culture.
- Read informational text for understanding.
- Write informational texts and narratives for communication.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor
- Innovative Designer
- Creative Communicator
- Global Collaborator

Resources:

- See Appendices
- Esports Production Job Shadowing: View details here.
- Esports references and VODs

Students will keep an online portfolio of artifacts from the course. By the end of the course, students will be able to showcase their experiences from content production, job shadowing, and college and career exploration. Students will decide on the focus of their portfolio as:

- Career Portfolio

- College Portfolio

Each artifact selected will include:

- Descriptive narrative about the artifact and the related work
- Skills demonstrated in the artifact
- Reflection about the related experience and how it connects with future work (in College or Career)

Give students opportunities to review and update their portfolio at least every 1-2 weeks as appropriate.

Students will present their portfolios at the end of each of the nine week sessions to various stakeholders. These presentations will be live and recorded.

Esports Job Shadowing Experiences

1st Nine Weeks and 2nd Nine Weeks

Esports Production: Job Shadowing & Assisting: Technical Support, Consumed Content, Team Support - outside of the scheduled class time

If available, this aspect of the student experience would include attending and shadowing those who work the production and running of the school's esports team(s). This ongoing process will give students an understanding of all aspects of the production work. Eventually, students will participate in supporting the production based on the shadowing experiences and training received. These experiences generally occur outside of the class schedule. Acceptance into this course requires a student contract agreement to volunteer in 4 or more esports events per each nine week section. If the school does not yet have an esports team or is just starting one, this part of the student experience can evolve over the course of the following year.

These experiences can be supplemented by virtual shadowing events such as tours of facilities and webinars by such places as Skillshot Media or PlayVS.

End in Mind: Running an Esports Event

Production for esports includes many components. Some are essential to the competition between players, and others are optional based on the interest areas of the students to contribute to the esports organization. The following is a breakdown of such events into three phases: Pre-Production, Production, and Post-Production. By the middle of the second nine weeks, students will work in teams to support components that crossover two to three phases. These experiences will provide rich artifacts and reflections for student portfolios.

	Phase 1: Pre-Production	Phase 2: Production	Phase 3: Post-Production
Technical Support	*Setup and test: computers, video recording, mics, bandwidth, etc.	*Monitoring equipment functions, such as bandwidth, video recording, and micing Set up camera angles and game map view options	Camera shots/movement of end game reactions by players and fans Micing for interviews *Breakdown of equipment

Promotional	*Social media marketing, including hashtags, user surveys, announcements Video trailers Posters, flyers, and listservs	Commercials during breaks between games Analyst/Caster commentary during breaks between games	*Social media marketing, including hashtags, user surveys, announcements Video trailers Posters, flyers, and listservs
Consumed Content	*Articles/videos/podcasts about matchups, esports news (pros, college, and HS), meta updates. Analyst desk (live or recorded) *Casters (live on game day) - video and audio Player, coach, fan interviews (live or recorded)	*Casting the games Social media updates via hashtags & images (live)	Analyst desk *Caster summaries Player/coach interviews *VODs/Articles/Podcasts Highlight reels Sports talk about the match and the sports atpPro and college level Analysis of the match Summary of the match Other esports related content
Team Support	*Scouting report on the other team. Scouting report on home team players *Analysis on meta updates Situational scrimming Create and execute set plays	*Analysis: Adjustments made between games	Game tape: Analysis of performance by the team and by position *Player reflection on personal and team performance

* These elements require coverage by students. All other items are subject to needs and interests based on conversations by students, teachers, and coaches.

By the second half of the second nine weeks, the above production phases will be entirely student-run by the course participants, along with student volunteers. While all phases and categories will be addressed, not all items in each category will be used. The ones selected will be a combination of needed areas and items that are interest-based. For example, during Phase 2: Production, casting the games is necessary, but there might not be live tweeting of the games through hashtags. During Phase 3: Post-Production, there may be VOD highlight reels and an article that summarizes the match, but no other items on the list are covered.

Business Overview

(1 week)

Outcomes

- Understand core concepts for the business side of organizations like esports.
- Develop core skills for networking and building connections.
- Practice behaviors that support digital citizenship (i.e. digital footprint) and Global Professional Skills (GPS).
- Grow a collaborative and inclusive esports culture.
- Build skills in research and informational literacy.
- Read informational text for understanding.
- Write informational and persuasive texts for communication.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor
- Global Collaborator

Resources:

- See Appendices
- **Esports Production Job Shadowing**: View details here.
- Esports references and VODs

Students will develop a foundational understanding of the parts of the business side of an esports organization. They will then complete a research study of one self-selected organization to understand how these components work together:

1. Ownership/Investors
2. Marketing

3. Promotional
4. Finance
5. Human Resources
6. Organizational Structure

Student Module Work

Research an esports organization, including an interview of one or more representatives. Learn about its business operations, work culture, and opportunities for job shadowing and internships. Create a profile of the organization and a letter to volunteer or intern at the organization.

Phase 1: Organization Selection (2 sessions)

Based on homework at the end of the first nine-week session, students should have identified 2-3 esports organizations that they are interested in learning more about. They will collect contact information about as many roles as possible, including names, job titles, phone numbers, and email addresses. At a minimum, they will need to locate the contact information for marketing or outreach and human resources.

Students will also collect information about the organization's:

- History
- Mission and values statements
- Social media
- Available financial information such as net worth, salaries, and/or ventures.

Plan a mini-lesson on interview questions and strategies for calling and emailing. Also, if possible, schedule a virtual meeting with someone from an organization, preferably from esports, but it can be from any business. The purpose of this session is to give students insight into business culture and components. It is also an opportunity for students to share or test some of their questions and get feedback.

Phase 2: Contact and Interviews (2 sessions)

Students will compose emails, which, once vetted by the teacher, can be sent out to the organizations. They will also prepare to call the organizations requesting interview time. Throughout this process, students are also conducting ongoing research using articles and video interviews available online and in printed mediums. This information is used in their development of an organization profile. If possible, include another 10-minute virtual meeting with another business professional to give students more experience learning about business operations and asking questions.

Phase 3: Organization Profile and Letter (1 session)

Students complete their profile and draft application letter. Some students may need after school time to complete all work. Digital copies of everyone's work should be posted in the private class forum for peers to read and learn about the organizations. Encourage students to submit their letter of interest to volunteer or intern.

Management Idea

When students are choosing their organizations/businesses, consider capping the number of individuals who can choose one. For example, only 4-5 students can pick the same organization. Those students will form a research team to collect and share data. They would use the data to create their individual profile of the organization or busines.

Content Production: Live Action

(3 week)

Outcomes

- Build deeper application skills of core concepts and ideas about content production for esports.
- Develop project management skills through tournament planning.
- Explore career opportunities in esports related to content production and job shadowing.
- Practice behaviors that support digital citizenship and GPS.
- Grow a collaborative and inclusive esports culture.
- Read informational text for understanding.
- Write informational texts and narratives for communication.
- Practice the writing process for content development.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor
- Innovative Designer
- Creative Communicator
- Global Collaborator

Resources:

- See Appendices
- **Esports Production Job Shadowing**: View details here.
- Esports references and VODs
- Review the Content Production Rubric

Part One: School Esports Production (1 week)

Students will need training and/or review of the different jobs for producing esports games for their school team. During the first nine weeks, students should have at least 2-3 opportunities to observe and shadow different people who currently produce the school's esports games and watch team practice sessions. These experiences are scaled to the current production practices.

The next step is for the students to have monitored experiences assisting with the production of the school's esports games. This might take two different paths, or a combination of both:

- The first is for students to take on different roles during a sporting event or as part of a pre or post production event. This assumes that the students have shown proficiency in the task (i.e. badging or credentialing).
- The second option is to have students run the production as a backup of the actual production team. They will do all the same activities as a redundancy to the public session.

Students will need mentoring and review by the staff who run the school's esports production during the first week.

Part Two: Develop and Produce an Esports Tournament (2 weeks)

During the second and third week of this block, students, working in teams,, will plan their own esports tournament. The game will be student choice. They will have to test their plan and present their proposed concept (See Engineering Design Thinking). One or more proposals may be chosen to be run for the class.

Required elements include:

1. Esports or game that can be used for a competition. Must be approved by the teacher based on school guidelines.
2. High fun factor!
3. Can be played online. Include specific logistics for success.
4. Matches can be live streamed (preferred) or recorded. Include specific logistics for success.
5. Based on four teams (minimum) to eight teams (maximum)
6. The tournament can be completed in two days or four hours.
7. The championship game (and possibly the semifinals) is casted, with the possible inclusion of a pre and post analyst show. Include specific logistics for success.

8. Public viewer access through an online platform such as Twitch or Youtube. Include specific logistics for success.

Phase 1: Develop a Tournament Concept

Student teams will decide on the esports game and type of tournament play they want to use for 4-8 teams. Some examples include round robin and single eliminations.

Phase 2: Outline the Tournament Structure

The team will flesh out the details of the tournament structure for competition. The chosen game needs to be one that allows for creating private matches so only the tournament participants can compete. The team will detail all steps to run such games and anticipate any setup challenges, such as if there is a minimum level requirement for each player.

Phase 3: Plan Logistics for Production

The team will map out the production steps so the games can be recorded and/or streamed, and casters can call the matches. There should be a plan included for running a pre-game and post-game show. Each should run a minimum of five minutes.

Phase 4: Present Proposal

All proposals will be a combination of written and orally presentation. Oral presentations can be recorded prior for quicker reviews. The judges' panel could include students and representatives from the school esports production team. Two proposals will be selected to be produced with class participation.

Phase 5: Run the Tournament

Students will be placed in two roles, producers and players for each tournament. The roles will switch when producing the second tournament, thus ensuring that everyone gets to compete and produce.

Social Media & Branding

(1 week)

Outcomes

- Understand core concepts and ideas about marketing through social media and branding.
- Explore how esports organizations use social media and branding as part of their business.
- Practice behaviors that support digital citizenship and GPS.
- Grow a collaborative and inclusive esports culture.
- Read informational text for understanding.
- Write informational text for communication.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor
- Innovative Designer
- Creative Communicator
- Global Collaborator

Resources:

- See Appendices
- **Esports Production Job Shadowing**: View details here.
- Esports references and VODs

Present students with an understanding of social media as a marketing strategy to support the team or organization's brand. Use examples from different teams and organizations. Include virtual presentations from professionals in the field. Explore identified concepts that such organizations use when formulating their strategy.

Starting Point

Here are articles that give a general view on the elements of branding. Use these and other resources to give students a background of concepts and ideas that they can use when researching their esports organization of choice. There are some articles that get more specific to esports from an example about the 100 Thieves organization to the broader view on social media and the challenge of toxicity that can affect players and online personalities in the business.

Branding

- Nine Ways to Creatively Launch A Personal Brand In 2019 - Forbes
- 10 Ways to Build a Strong Personal Brand in 2019 and Beyond
- 5 Personal Branding Trends You Need to Know About for 2019 | Inc.com
- Top 10 Tips for Branding Yourself - Brand Minds

Social Media Branding

- Every social media marketing strategy to grow your business
- How to Create a Social Media Marketing Strategy in 8 Easy Steps
- How to Build Your Social Media Marketing Strategy | Sprout Social
- How brands can score with esports marketing | Marketing Dive
- Esports Is The Next Biggest Frontier In Influencer Marketing

Examples

- 100 Thieves Raises $35 Million to Rapidly Grow Its Lifestyle Brand
- How Toxicity Hurts The Future Of Esports And Twitch - Forbes
- Professional Behavior in the Esports Scene | EsportsTalk.com
- The impact of being toxic in esports - Esports Insider
- Realtalk: Is Social Media the Worst Thing to Happen to Esports?

Student-Led Module Work

Students will choose an esports league or team to study their approach to social media and branding. Based on social media and branding concepts, students will research how their chosen organization presents themselves and communicates with fans, community, and others such as sponsors.

Based on their research, students will create a social media and branding campaign proposal for the school's esports team or for one at the college or professional level.

College Esports and Recruitment

(2 weeks)

Outcomes

- Research what colleges offer for esports competition and course work for degrees.
- Explore career opportunities in esports related to the college experience.
- Practice behaviors that support digital citizenship and GPS.
- Grow a collaborative and inclusive esports culture.
- Read informational text for understanding.
- Write informational texts and narratives for communication.
- Practice the writing process for content development.

ISTE Standards

- Empowered Learner
- Digital Citizenship
- Knowledge Constructor
- Creative Communicator
- Global Collaborator

Resources:

- See Appendices
- **Esports Production Job Shadowing**: View details here.
- Esports references and VODs

College esports teams require similar resources for competition, management, and production as do professional esports teams. Researching and exploring what different colleges have to offer in terms of the above competitions and degrees will assist students with finding the best fit for them on graduating high school. Even if students do not choose to study esports in college,

this experience will open opportunities and understandings about what different universities have to offer.

Throughout this two-week block, the teacher will provide mini-lessons that showcase different colleges and schedule virtual meetings with colleges to dialog with the students. These experiences will enable students to ask prepared questions based on their research.

Student Module Work

Research a university esports program including an interview with representatives from the team and college counselors. Learn about its operations, school and gaming culture, and opportunities for tours and meetings with staff. Create a profile of the college esports program and the related offerings.

Phase 1: Organization Selection (2 sessions)

Students will collect contact information about the university esports program and related degree programs, including names, job titles, phone numbers, and email addresses. The admissions office information should also be collected.

Students will also collect information about the organization's history, mission and values statements, social media, competition record, and biographies of coaches, players, and graduates.

Plan a mini-lesson on interview questions and strategy for calling and emailing. Schedule virtual meeting with someone from esports and admissions. The purpose of this session is to give students insight into the opportunities, culture and components.

Phase 2: Contact and Interviews (2 sessions)

Students will compose emails, which once vetted by the teacher, can be sent out to the organizations. They will also prepare to call the organizations requesting interview time. Throughout this process, students are also conducting ongoing research using articles and video interviews available online and in printed mediums. This information is used in their development of an esports university profile.

Phase 3: Organization Profile and Letter (2 sessions)

Students complete their profile and draft application letter. Some students may need after school time to complete all work. Digital copies of everyone's work should be posted in the private class forum for peers to read and learn about the organizations. Encourage students to submit their letter of interest to volunteer or visit.

Phase 4: Campus Visits (2 sessions)

Schedule 1-2 visits to university campuses to learn about their esports team and production. Also, they should get a campus tour and learn about the campus culture and degree offerings. If these tours are done virtually, plan for at least 2 opportunities.

Fitness and Nutrition for Esports

(1-1.2 weeks)

Outcomes

- Understand the risks and benefits related to fitness and nutrition
- Examine and evaluate practices that could lead to building a healthy lifestyle for esports competition.
- Practice the core GPS: Communication, Collaboration, Critical Thinking, and Creativity.
- Read informational text for understanding.
- Write persuasive and/or argumentative texts for communication.

ISTE Standards

- Digital Citizen
- Knowledge Constructor
- Creative Communicator

Resources: See Appendices => Digital Citizenship Resources)

Overview –

Fitness and nutrition are important to the health needs of esports players, similar to an office worker. Both sit for extended periods of time in front of a computer screen. Both are susceptible to the health risks of such lifestyles. Education on the problems and practices for self-care can help to develop practices that support a healthy lifestyle while in the world of esports.

How to use this module

The topics under nutrition and fitness are varied, with numerous pathways that students can dive into to delve into the relationship to esports. In this module, a list of essential questions are provided that challenge students to dive into the ideas and choose topic pathways that interests them. The initial research can be done individually, pairs, or groups of three. By answering the essential questions, students will amass a wealth and depth of information on varied topics that they will then share through a chosen discussion protocol, such as Socratic Seminar or Harkness Discussion. Whichever the choice, the protocol should occur inside a Fishbowl so that everyone can listen in and ask questions.

Sessions 2-3:

- Begin this module by having students read the article: "Esports players burn out young as the grind takes mental, physical toll".

- In small groups, have students share and explain a passage that resonated to them as valuable or curiosity.

- Follow up this group discussion with showing parts or all of the documentary by CBS News: "Esports: Inside the relentless training of professional gaming stars".

- Afterwards, have students discuss deeper connections they made regarding ideas and questions from the video and article. Consider using one of the following protocols to facilitate a student-led conversation: Harkness Discussion or Fish Bowl Discussion.

- Explore common injuries that impact players, which are similar to office workers. These include: carpal tunnel, tennis elbow, back pain and eye strain. This activity could be addressed on a second day.
  Support references:
  - Esports: The Price of the Grind
  - Computer Related injuries
  - Part B: Computer-Related Injuries, Illnesses and Discomfort
  - Computer Ergonomics: How to Protect Yourself from Strain and Pain

- Explore the value of sleep to a healthy life and competition.
  Use this video by the Mayo Clinic to start a discussion about good sleep habits: 8 reasons healthy sleep should be non-negotiable. Follow this discussion with a video that challenges learners to reflect on their sleeping habits: Mayo Clinic Minute: Do you practice good sleep hygiene? On average of 7-8 hours of sleep is recommended for healthy practice by The National Sleep Foundation. The emphasis is "on average." Use different articles to have students explore this topic. Consider using one of the reading protocols like Say Something, Save the Last Word for Me, or the Harkness Discussion (reference). Some articles might include:
  - How Much Sleep Do We Really Need?
  - How much sleep do we really need?
  - Assess your sleep needs
  - White Paper: How Much Sleep Do Adults Need?

  Here is a reference for deeper background by a Harvard symposium: Why Sleep Matters

  (Watch at least the first speaker, starting at 8:45 minutes.

- Close this session with highlighting key ideas that students shared and adding any key details about fitness and nutrition that were not addressed. Use the references at the

end of this section for ideas of where you'd like to highlight.

- Share the possible pathway options that students will get to choose to do by the end of this module. Understanding the options will give students a purpose for paying attention and completing tasks that prepare them to do the quality work.

Session Two (2-3 class periods)

Choose a path, Fitness or Nutrition, and answer the essential questions using research and provided references. Compose detailed answers to each of the questions. The responses require demonstration of the critical thinking skills—review the class coaching chart for Critical Thinking.

Fitness

Tasks: Competitive Longevity: Stretching and Exercise

- What are 2 important body parts that should be stretched in a regular basis? How do each have an impact on a player's longevity in competitive play?
- In 10 years how might stretching for esports be similar and different from how it's viewed and used today?
- What are 3-4 most critical areas that science and esports experts recommend needing care for as they could be career ending? Why do you agree or disagree with these areas as being critical? Be specific about each.
- Why is physical fitness important to esports where people mostly sit?

Choose one of the following potential injury areas for concern in esports:
carpal tunnel syndrome – tennis elbow – back pain – vision and sleep – sedentary time

Use the following guiding questions to explain about the chosen injury, common causes, and solutions. Be persuasive to players who are aware of such injury but do nothing preventative. Include information from the answers to the following questions:

- What are the symptoms for the injury? How can esports practices and competitions be a cause or impact to the chosen injury occurring?
- What are preventative measures that could avoid or reduce risk of having the injury?
- Why do you think these preventative measures are not an active or default practice by most players on teams and recreationally?
- Why could the culture of "grinding" solo queue or games be considered self-inflicted wounds with regards to injuries for esports and casual play?

- If you could make one change in a player's routine that could dramatically improve their longevity of play, what would that be? Why?
- Based on you answer to the previous question, why are you not using the same practices? Or, how could you further strengthen your practice?

Nutrition

Tasks: Energy and Fueling for Competitions and Practices

- Why can playing esports on an empty stomach have a negative impact on play performance? How does eating junk food that has minimal to no nutrients serve a similar and/or different effect?
- After reading pages 2-3 of Dietary Guidelines: https://health.gov/dietaryguidelines/2015/ (PDF), make a compelling case for the connections between eating and personal health.

Read about the "Healthy Eating Plate" from Harvard, School of Public Health. Then answer the following questions:

- Identify and explain one take away and one question from reflecting about the Healthy Eating Plate regarding its connections with esports and gaming performance.

Read about: Carbohydrates

- What is the difference between carbohydrates that are healthier for the body than others?
- How can the right carbohydrates be beneficial to esports and gaming performance? How can the wrong carbohydrates create problems to esports and gaming performance?
- Identify two types of carbohydrates that you could add to your and your team's diet to possibly improve energy for performance. Explain the value for each.

Read about: Healthy Drinks

- What is the value for drinking healthy options like water over other options for esports performance? Explain with examples.
- What are the challenges with non or less healthy drinks to esports performance? Explain with examples.

Read from Nutrition Source

Choose a category other than the ones read above, read and then answer the following questions:

- How would you describe your consumption of the category: minimal, moderate, above average, or a lot? Base on the readings, how is your level of consumption healthy or harmful to yourself and your performance with esports or gaming?

- What is one important set of facts or ideas that others should know about the category that could effect their health and esports performance?

Use a Food Tracker

Track food intake at least during this module or continue beyond throughout the semester or year. Use the opportunities to discuss healthy eating options and the positive impact on the body and mind. There are free nutrition apps available such as MyFitnessPal and MyPlate Calorie Counter

Session Three (2-3 class periods)

Students will choose from one of the two options to complete based on their interest, research, and learning from peer conversations during the previous session. Students may propose an alternative path of their own design. If the proposal aligns with the outcome of students being able to show deep understanding and practical application of fitness or nutrition, it should be accepted.

Choose a Path:

Competing at any level requires hours of play. Best of ones, threes, and fives could mean over five hours of sustained play. An all-day tournament could mean even longer time. Staying fit is an important key to any athlete's ability to maintain energy and brain power at a high level over time. Choose from the following options for demonstrating your understanding of the value of physical and mental fitness in practical and innovative ways to train yourself and others to perform at peak levels.

Fitness Designer

Stretching and exercising are important keys to any esports athlete's longevity in competing in their games. Concerning injuries to prevent through a fitness routine include one routine to address: carpal tunnel Being in shape can provide sustained mental and physical energy for long periods of time and extend the time before exhaustion takes its toll.

Design and follow a fitness routine. Include stretches and activities for aerobic and muscular strength. Routines that require little to no equipment to practices that include exercise tools are all possibilities. Incorporate the following:

- Activities that address aerobic and/or muscular activities at least three times a week. Each practice should be a minimum of 30 minutes.
- Daily stretching pre-game routine
- Include a rationale for each item included in the components above (written or recorded).
- Cite 2-4 references that supports the core ideas used in designing the above plan.
- Design a method for daily recording completion of components in the plan (above)

A sample starting place could be goal setting for after each match:

- Each death or crash = 10 sit-ups or 10 pushups
- Each champion defeated = subtract 3 sit-ups 86u7iejor pushups
- Lose composure or frustrated = 3-5 burpees

Nutrition Planner

Eating healthy and fueling for practices and competitions are important for ensuring that the body has what's needed to maintain the energy to complete physical and mental tasks. Healthy eating and proper fueling during practices and competitions can be the difference maker for sustained competition at the end of the day or during a marathon competition.

Design and follow a nutrition plan. Such plans include food and hydration. Incorporate the following:

- Include a thoughtful and intentional meal and snack plan for a 2-week period.
- Include snack recommendations (2-3) for during practices and competitions.
- Include a rationale for each meal and snack included in the components above (written or recorded).
- Cite 2-4 references that supports the core ideas used in designing the above plan.
- Design a method for daily recording of following the plan (above)

Safety Advocate

Screen time and sedentary activity such as sitting in front of a computer for many hours in a day can potentially be detrimental to one's health. How can we ensure school teams and clubs become aware and mindful? Once they are, there can be more movement towards developing healthy practices around fitness, nutrition, and mindfulness.

- Craft a communication that informs others on the dangers related to screen time and/or sedentary time in front of a computer over time. Be specific and concrete in laying out the challenges and risks.
- Offer solutions that teams and clubs can explore themselves or do to help improve the health conditions of their players.
- Cite 2-3 references (per bullet point) that supports the core ideas used in the arguments made in each section above.

For all pathways, include:

a. Draft outline or storyboard
b. Written paper (1.1 pages or longer) for a letter, article, or script, or 2-4 minute audio (script included) or video (script included) *

Assessment Criteria:

- Narrative or Persuasive format
- Effective details: specific, relevant, and concise. Cites 2+ evidences.
- Organized: Beginning, Middle, and Ending. Includes appropriate transitions throughout.

References

Nutrition

- Dietary Guidelines. Office of Disease Prevention and Health Promotion (ODPHP). https://health.gov/dietaryguidelines/
    - Dietary Guidelines: https://health.gov/dietaryguidelines/2015/ (PDF) Pages 2-6 make a compelling case for the connections between eating and health.
    - Tools & Resources: https://health.gov/dietaryguidelines/2015/resources.asp Offers various references and graphic charts that can be used to analyze and reflect on positive and negative eating choices.
- Dietary Guidelines for Americans 2015-2020, Eighth Edition. https://health.gov/dietaryguidelines/2015/guidelines/ (digital edition) & PDF version
- The Nutrition Source. “Healthy Eating Plate”. Harvard T.H. CHAN. 2011. https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/

Fitness

- Physical Activity. Office of Disease Prevention and Health Promotion (ODPHP). https://health.gov/paguidelines/
    - Physical Activity Guidelines for Americans, 2nd Edition. (pdf) https://health.gov/paguidelines/second-edition/pdf/Physical_Activity_Guidelines_2nd_edition.pdf

- Top 10 Things to Know About the Second Edition of the Physical Activity Guidelines for Americans: https://health.gov/paguidelines/second-edition/10things/
  Highlights 10 key ideas to take from these guidelines.

Physical Challenges and Issues

- eSportwissende. “Esport Injuries – The Most Common Complaints”. https://www.esportwissen.de/en/verletzungen-im-esport-die-haeufigsten-beschwerden/
- “Doctors raise the alarm about esports injuries”. CBS News. 2019. https://www.cbsnews.com/news/esports-video-game-players-injuries-can-be-serious/
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- CBS News. “Esports: Inside the relentless training of professional gaming stars” (video). CBSN Originals S3 E12. December 23, 2018. https://www.youtube.com/watch?v=box4SFtGvA0
- CBS News. “Physical and mental health effects of esports”. December 25, 2018. https://www.youtube.com/watch?v=gjmdT9swg2Q
- CBS News. “Esports players struggle with injuries from gaming (video) ” March 29, 2019. https://www.youtube.com/watch?v=aP_fVTLACjs
- Complexity Gaming. “Biggest Problem in Esports | Ground Breaking EP:5” (Video). June 26, 2019. https://www.youtube.com/watch?v=7EDDnCN5MeU
- Joanne DiFrancisco-Donoghue, Balentine, Jerry, Schmidt, Gordon, Zuibel, Halie. “Managing the health of the eSport athlete: an integrated health management model” BMJ Open Sport & Exercise Medicine. Volume 5, Issue 1. https://bmjopensem.bmj.com/content/5/1/e000467. (abstract) https://bmjopensem.bmj.com/content/bmjosem/5/1/e000467.full.pdf (full text)
- “The Untapped Potential of the Gaming Community: Narrative Review”. Queen’s University Belfast. JMIR Serious Games. 2018. https://pure.qub.ac.uk/en/publications/the-untapped-potential-of-the-gaming-community-narrative-review (abstract), https://pureadmin.qub.ac.uk/ws/portalfiles/portal/158415278/The_untapped_potential_of_the_gaming_community_A_narrative_review.pdf (full text)

Women and Gender Equity in Sports Culture

(1 week)

Outcomes

- Build and expand an understanding of the participation and contributions by women in traditional sports and esports.
- Analyze the level of skill requirements for esports as gender neutral.
- Evaluate the core bias and toxicity in esports and find solutions towards positive change.
- Practice the core GPS: Communication, Collaboration, Critical Thinking, and Creativity.
- Read informational text for understanding.
- Write persuasive and/or argumentative texts for communication.

ISTE Standards

- Digital Citizen
- Knowledge Constructor
- Creative Communicator

Resources: See Appendices => Digital Citizenship Resources)

Overview – 3-5 sessions

“Chinese ladies playing cuju, by the Ming Dynasty painter Du Jin” - 蹴鞠 meaning kick ball

Public Domain, https://commons.wikimedia.org/w/index.php?curid=1472230

Women across the world compete in sports. From elementary and club teams, professional sports, to world competitions such as the Olympics, women are integral part of athletics. In ancient Greece, women were not allowed to compete in the Olympics, although some broke barriers even then; yet they did compete in foot races during the Heraean Games that were held every four years in the stadium at Olympia. Around the same time in China, women were reputedly to have played arguably the earliest form of soccer known as Tsu Chu.

Over centuries, women also confronted barriers to compete because of male dominated views. Despite years of obstacles and limitations placed on their participation, females are an integral part of sports today, and continue to display high level acts of athleticism and growing opportunities in the workplace for equitable access.

Esports is the current frontier to promote equitable access to opportunities as athletes and other professional roles. Just as with other athletic arenas, esports provides representation of professionals who are women, providing high quality work in such fields as casters, analysists, management, content production, and players. Also like traditional sports past, the present of esports deals with cultural barriers where toxicity and harassment are weapons to keep females from having the same support and opportunities as males.

The place for positive change is revealing the rich history of women in sports and related careers for students to see that esports, as a symbol of seeing sports differently, should treat all participants with equal respect regardless of gender identities. With understanding of the rich history of women in sports, students can educate others about this awareness and develop plans for how to transform the esports culture they love into one that is open and positive for all participants.

How to use this module

This module can be used in two ways: Standalone or Supplementary:

Supplementary:

The research for knowledge collection for understanding the connections of women in traditional sports and esports can be tied into the module: Digital Citizenship in Gaming Culture. In section 2: “Online Relationships and Bullying/Trolling”, gender inequality in gaming is addressed. As a supplement, this module content about women in sports provides a much-needed bases for contextual information about the “why” a positive culture is needed. Increasing participation in an esports by welcoming women increases the participation and overall quality of competition—more people can lead to additional quality players from within the increased numbers. Better competition makes for better players who can compete at the highest level against teams from other regions. Add components from this module to “Online Relationships and Bullying/Trolling” for a deeper learning experience by all students.

Standalone Module:

Taken as a whole experience, this module provides students with an important focus on the value and contributions of women in traditional sports and as a launch pad for esports. There is a richness of history and accomplishments by women as players and other athletic professional occupations. Students go in-depth in learning and unpacking the history in sports and esports. Seeing the opportunities could encourage more females to get involved, which would benefit the different esports. For example, in some international esports, North America has struggled to find success against teams from other regions for many years. Such as in League of Legends, there has not been a North American team that has won the mid-season or world tournaments. One factor raised by many in the field is that the player-base is smaller than other regions. If more players competed on the North American server, there is an opportunity to raise the talent level. However, this is difficult to accomplish if a potential talent pool is dissuaded from playing due to alleged toxicity by players vs players, particularly towards girls and women.

By the end of the module, students would choose from options to create positive changes based on their sphere of influence or build their plan for networking and mentoring that helps their pathway towards professional opportunities in esports. The choice is theirs.

Tasks:

Session 1: Explore a history and growth of women in sports.

A. Begin with sharing this headline: Women started participation in the modern Olympics in 1900 at Paris, France.

B. Next, share this quote by President Bach AT THE IOC EXECUTIVE BOARD MEETING21 AUGUST 2015:
"This is an excellent step forward. We have made history. To have equal numbers of women and men competing for the first time at the Olympic Games or Youth Olympic games. As well as being another big step in the implementation of Olympic Agenda 2020, this is a great milestone for women's sport and for the Olympic movement as a whole."

C. Have students in groups of 2-4 review the quote and discuss its meaning and implications about women roles in modern sports. Each group should have a note taker to capture the key ideas from the conversation. (Provide 2-3 minutes).

D. Next, share "Key Dates in the History of Women I the Olympic Movement". Have the teams explore the resource and find 2-3 facts or ideas that is meaningful or significant about women in the Olympics and/or a reflection about society. Each group has a different person be the notetaker. (Provide 5-7 minutes)

E. Have teams share out their findings through a round robin protocol. Go to each group twice to share what they uncovered. If a team finds their ideas already posted they can say "Pass." The teacher (or 2 student helpers) should capture the ideas on chart paper or digitally. Once the round robin is complete, the teacher highlights ideas from the generated list to raise.

   Important takeaways might include that:

   - early history showed that society restricted opportunities for women to participate in international sports in particular and placed limits on community sports in general.
   - over time, women participation increased as cultural views changed.
   - Women are capable of competing at the highest levels, including handling the stresses and pressures.
   - Change in views happened because individuals spoke up and/or organized to have a larger voice.

F. Share information about women competing in ancient Greece (Heraean Games) and China (Tsu Chu) around 6th century BC (see overview reference). One example is the first woman to win at the ancient Olympics, Kyniska of Sparta, which also reflected the Spartan view of women as somewhat different from other city states. Next fast forward to star women athletes and female teams in the present. Have students in their teams generate a list of 3-5 examples. Each team will share an example of one woman or female team and share why they should be respected.

G. Share examples of women in esports as players, Gegury, content developers, and casters, Sjokz, who participate at a high level. Then have students explore 2-3 of them from the list and take note of the successes and challenges they deal with as part of their profession. Listen to one of these podcasts by women about women in esports culture: Jessamyn Acebes: Growing as a Woman in Esports and COO Samantha Anton: Creating a Winning Environment

H. Exit Ticket: List and describe one female sports professional who demonstrates a high level of professionalism that you respect. Include 1-2 details that supports your judgement.

Session 2: Overcoming Obstacles

To play esports should be treated with the same respect and integrity as done with traditional sports, such as the ones involved in the Olympics. Good sportsmanship is a hallmark of competing with oneself and others to become the best one can be. To earn such respect, esports has an obligation to eliminate the toxicity that exists with its culture.

In the module: Digital Citizenship in Gaming Culture, there is a section about Gender inequality in terms of treatment. The readings in that section should be used in this module if the focus is on the weeklong approach. Or this module can be used to enhance that section with the content in this session.

A. Review some of the highlights from the previous session relating to women in sports and in particular, women in esports.

B. Next, have students in small groups share the benefits to esports when a player pool is large, versus a smaller pool. How is quality of competition improved? What happens to a region's international completive level if its player pool is drastically smaller than other regions?

   Share the following ESPN quote regarding the failure of the North American (NA) region for League of Legends to compete at the world tournament. Have student teams discuss connections from their previous conversation to this example. Have 2-3 teams share out their thoughts:

   "The issues plaguing North America are many, including but not restricted to poor solo queue conditions, a small player base, unwillingness to give the genuine talent that does bubble up to the surface from that player base a chance in the LCS, poor amateur scouting, poor amateur infrastructure, the inability to scrimmage with strong teams from other regions regularly and many more. These issues can't be solved in a day, or even

a year, given the amount of problems and nuances behind them."

Have students choose from the following articles to read. Create groups of 3 or 4 based on common article selection. There may be multiple groups reading the same article.

- Esports' urgent need for visible gender diversity
- One-third of UK women gamers report abuse or discrimination from male gamers
- Female Overwatch League host receives death threats over Women's Day tweet
- Women navigate toxicity, other barriers in esports
- Coaches Corner: Carrie Holakovsky
- Coaches Corner: Bethany Pyles

Each group of 3-4 will participate in the "Save the Last Word for ME" Protocol to unpack the concept of how a culture of exclusion of women and any other groups harms the survival of the sport itself. Here is an adapted version:

Step	Save the Last Word for Me
1.	**Step 1: READ TEXT** Participants read the text and identify 2-3 passages that mean something to them: X = Agree with the ideas of the passage. ! = New idea (Epiphany) from the passage. ? = Have a question about the passage, or as a result of the passage.
2.	**1st Speaker** 1. Read aloud the passage s/he has selected. ***Other participants listen***
3.	**Each Participant** Say what s/he thinks about the passage (interpretation, connection to experiences, etc.) ***Other participants listen***
4.	**1st Speaker** Share the meaning the passage has for him/her (interpretation, connection to experiences, etc.) ***Other participants listen***
5.	**REPEAT** Repeat Steps 2-4 as each person takes a turn as the Speaker.

School Reform Initiative http://www.schoolreforminitiative.org/doc/save_last_word.pdf

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After conducting the protocol, have student groups share one memorable idea about the challenges and problems with toxicity towards women in esports.

C. Have students choose an article that they did not choose to read, that they are now interested in based on the discussion. Give students 10 minutes to read. They should capture 3 quotes that they find are important. If time does not allow, skip this step and go to the next step.

D. Have students create on a blank typing paper or chart paper a representation of what specific challenge needs to be addressed. This task can be done in groups of 2, 3, or 4. The work should include the following:
    a. One quote per each article read.
    b. An image that represents the problem or solution.
    c. One slogan that represents the solution.

Post the posters on the wall.

Session 3: Taking Action (2-3 sessions)

A. Gallery Walk of the Posters
Run two rounds of the gallery walk. During each round at least one team member from the poster creation will stand next to their work and present the team's findings. Students will move to the next poster every 60-90 seconds (timed by the teacher or student helper). Anyone who visited the posters in the first round must present (or co-present) their poster in the second round. (5-6 minutes per round)

B. Review with students the section below: Choose a Path. Students can work in study groups or work alone. Final products must be individual. There are no assignments turned in by a team or group. Final products will be shared during the 5th session.

Choose a Path:

Change Agent

Online gaming and competition in esports have a reputation of some players showing toxic behavior from name calling, degrading other players, to harassment. While this behavior does not appear to be how a majority of players act, there are enough bad actors that can make any game toxic at any time.

Become a change agent! Change in culture begins with the actions of individuals and the people that they influence. Complete the following tasks to demonstrate your commitment to making your sport a healthy environment:

1. Investigation: Understand Toxicity in the Gaming Culture (choose 1 option)
    a. Collect evidence of toxicity. Find 2-4 articles that address issues of toxicity in an esports of your choosing. At least one needs to reference impact on women. Include a one paragraph summary of each.
    b. Investigate a game. Play it and capture 3-4 evidences of poor behavior towards others OR interview 2-3 players (at least one female) who have experienced

harassment or who has been toxic to others. Include a one paragraph summary about each experience.

Choose from Option 2 or 3

Use the shared articles and information from your investigation task to shape an action for one of the following options:

2. Personal Growth
   Creating change in a culture begins with oneself. If silence is taken as support of poor behavior, how can you use your voice to model change? Reflect on your play experience and those around you. What changes can you make in your behavior to represent what good sportsmanship should look like? Modeling, setting an example, and supporting others who are being harassed are just some of the ways that one individual can have a calmative effect on others.

   Compose a 3-5 step plan for how you will personally grow through your actions to be a difference. Each step will need clear details and explanation using a narrative or persuasive approach. Include:
   a. Draft outline or storyboard
   b. Written paper (1.1 pages or longer) or 2-4 minute audio or video*

3. Helping Others Change
   Sometimes the best way to effect a change in a culture is to involve others in doing something different. What are ways that you can educate and convince others to do more than listen? Getting them to participate in the solution is the difference maker.

   Compose a 3-5 step plan for the actions that you can convince others to take or participate in making a difference. Each step will need clear details and explanation using a narrative or persuasive approach. Include:
   a. Draft outline or storyboard
   b. Written paper (1.1 pages or longer) for an article or script, or 2-4 minute audio (script included) or video (script included) *

*you may propose an alternative product that fulfills the focus of this work.

Agent of Opportunities

In the world of esports there are positive role models of professionalism, including athletes, coaches, streamers, content producers, casters, staff, and businesspeople. Making connections with the right people helps to learn about the professional behaviors and expectations required to become one of the best. Complete the following tasks to build your professional network:

2. Explore the people who represent the professions you're interested in
   Identify 2-3 people (at least two women) who are in the profession that you're interested in. Find two articles about their work or that profiles them in the profession, and get a reliable social media means for contacting them.

3. Build a virtual job shadow/mentor list
   Based on who you identify in step 1, read through their social media to learn about 3-5 things regarding their work and/or successes. Write a paragraph about each item found.

4. Contact key professionals to learn from
   Compose a professional letter to one of the contacts with the intent of learning more about their work. Let them know that you are hoping to learn from them as you are following their career as a possible occupation down the road. Include:
   a. Draft outline or storyboard
   b. Written paper (1.1 pages or longer) for a letter or script, or 2-4 minute audio (script included) or video (script included) *

Assessment Criteria:

- Narrative or Persuasive format
- Effective details: specific, relevant, and concise. Cites 2+ evidences.
- Organized: Beginning, Middle, and Ending. Includes appropriate transitions throughout.

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Mindfulness and Mental Health for Esports

(1 week)

Outcomes

- Understand the risks and benefits related to fitness, nutrition, and mindfulness
- Examine and evaluate practices that could lead to building a healthy lifestyle for esports competition.
- Practice the core GPS: Communication, Collaboration, and Critical Thinking.
- Read informational text for understanding.
- Write persuasive and/or argumentative texts for communication.

ISTE Standards

- Digital Citizen
- Knowledge Constructor
- Creative Communicator

Resources: See Appendices => Digital Citizenship Resources)

Overview – 5 to 8 sessions

Mindfulness and mental health have been integral parts of sports from scholastics to the professional level. Visualizing the moves and reactions pregame help coaches and athletes mentally prepare for the game so that actions on the digital field become familiar even if it's the first "Realtime" experience. Practicing awareness of one's breathing and meditation can lead to maintaining "calm under pressure." There is also the mental health aspects that can manifest itself through the "love of the game" or burnout. The higher the competition the greater numbers fall off the path, quitting or shutting down because the pressure and disappointment become to much to bear.

This module has students exploring the good and the bad experiences regarding mental health and mindfulness. Students will develop global professional skills as they explore, deepen, and practice understanding that becomes immediately transferable to their courses, teams, and other obligations.

How to use this module

Tasks:

Session 1: Build knowledge and share understanding of the influences and impact of mindfulness and mental health in esports.

A. Watch an esports video segment about a team or player profile that shares about the life of a player—from long practice hours, living together, and pressure from team and social media.

B. Examine and discuss data that compares the live of an esports player and coach to that of someone working a 40-50 hour job.

C. Introduce the module focus for exploring topics under both categories: Mindfulness and Mental Health. Share the benefits of having positive experiences and practices about both.

D. Introduce meditation
    a. Share or have students unpack the benefits of meditation as a form of maintaining calm, a clear mind, and opportunities for reflection and self-examination.
    b. Conduct a 3-4 minute practice that focuses on breathing and clearing of thoughts.
    c. Facilitate a student-led reflection about the experience and, with time and skill growth, the potential benefits for players and coaches.
    d. Begin each module session with a 3-4 minute meditation. Consider continuing the daily practice in the modules that follow—eventually having students lead the medication sessions.
    e. Optional: Consider exploring the use of a meditation app to practice using during this module. Some options might include: Calm, Headspace, Mindfulness, and Sattva. Search article reviews for what's current.

Session 2: Examine healthy practices for Mindfulness and Mental Health

A. Introduce the concept of Growth Mindset. Have students unpack the concept with support resources: articles and videos.

B. Have students create a lists of practices and strategies that help athletes and those in other profession to maintain a growth mindset and become mentally prepared for matches, such as visualization. Consider using a "think-pair-share" or "pair-think-share" approach when creating and sharing the list.

C. The teacher will add to the students' list, filling in any gaps.

D. Use articles and videos as resources that talk about positive practices used by esports and non-esports professions for students to deepen their knowledge. Have students complete a written or recorded journal about their findings, discoveries, and questions.

E. Dealing with frustration: A common challenge is letting frustrations take over. This leads to players “feeding” or “inting”. The snowball effect is that the team suffers losses because the players have stopped playing to win, but to be done with the game.

   Create a 3-column table, which students will complete. In column one, generate a list of triggers for frustration. In second column, list 1-2 effects from the trigger: for the player and for the team. In the third column, list 2-3 solutions for each trigger.

   Use a discussion protocol for students to talk about this challenge and how mindfulness and growth mindset can help deal with frustration. Follow up the conversation with a journal entry (written or video recorded).

Session 3: Closer View of Mental Health

A. Build understanding of mental health and the positive and negative causes that influence mental health.

B. Facilitate student research through a jigsaw exploration of mental health topics:
   a. Students unpack their topic using both provided resources and research.
   b. Have each team report out on their findings to the class via a gallery walk.
      i. Option 1: each poster station has a team member who shares the work and answers questions. Rotating groups compose comments on what they learned on post-it notes and then post them on the poster.
      ii. Option 2: groups rotate to each poster (no spokesperson). Groups review the poster content and write 2-3 post-it notes on what they liked, learned, and one question about the topic.

C. Teacher facilitates a collaborative conversation about the collected student insights. The teacher fills in the gaps of knowledge and understandings about Mental Health.

Session 4: Taking Action (2-3 sessions)

Students complete one of the following paths based on their interest in the topic. It is recommended that all products be individual, especially if there is attached an academic grade. If assessments are focused on the skills of communication, collaboration, and/or critical thinking, then assessments can be a combination of individual, group, and self-reporting.

Choose a Path:

Competing at any level requires hours of play. Best of ones, threes, and fives could mean over five hours of sustained play. An all-day tournament could mean even longer time. Staying mentally fit is not only about fitness and nutrition. An important key to any athlete's ability to maintain focus and commitment at a high level over time is maintaining a clear and calm mindset.

Mindful Practitioner

A healthy athlete has a positive mindset and understands the importance of managing stress, frustration, and failure during practices and matches. Some of this work can be through managing one's mindset to be of Growth and not get stuck in a Fixed mindset. Meditation, breathing, and positive self-talk are other avenues for building "mindful muscles". What will you choose?

- Develop a weekly plan that includes use of at least one daily strategy. Must include a minimum of 3 strategies.
- Include a rationale for each strategy included in the weekly practice and why some might be used more than others (written or recorded).
- Cite 2-4 references that supports the core ideas used in designing the above plan.
- Design a method for daily recording of following the plan (above)

Mental Health Advocate

A healthy esports employee needs balance between work and personal life. Burnout and weakened mental state can cut short promising careers. Review the lifestyle of an esports professional or a school student athlete. Standup and advocate for a way of life that promotes positive mental health.

- Choose an esports team or league at the professional or college level that you want to support a healthy mental lifestyle.
- Research and create a map of what their work week looks like along with daily lifestyle.
- Choose to either:
    - Promote the positive attributes of the team or league, highlighting 2-4 specific qualities and/or practices.
    - Raise concerns about 2-4 qualities and/or practices that may lead to a toxic or fixed mindset culture.
- Cite 2-4 references that supports the core ideas used in designing the above plan.

Required Logistics for either chosen path

Include:

- Draft outline or storyboard
- Written paper (1.1 pages or longer) for a letter, article, or script, or 2-4 minute audio (script included) or video (script included) *

Assessment Criteria:

- Narrative or Persuasive format
- Effective details: specific, relevant, and concise. Cites 2+ evidences.
- Organized: Beginning, Middle, and Ending. Includes appropriate transitions throughout.

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APPENDICES

Play

Fun is an important part of gaming culture. For example, Team Liquid hosts monthly experiences where employees play games together. Other organizations have similar aspects to their culture. To this end, it is important that once a week or once every two weeks, students play games with different peers. Sometimes run mini-tournaments. Do a teambuilder once a week to strengthen the team culture. Through play they will get to know each other and build bonds that may not normally exist in classroom culture.

Here are some resources

Teampedia

- Survival Scenarios
- Survival Scenario Exercise (requires free registration)
- Team Building Exercises – Problem Solving and Decision Making
- Team Building Games That Really Teach Teamwork

Culture Building Resources

Building Norms

Formal norms put everyone on the same page to define the professional behavior needed to support each other within the classroom culture. Norms should be framed as constructive, positive, and observable behaviors. Have students develop the norms so that they have full buy-in for the guidelines. On the left in the table below is an example of how to facilitate developing norms. On the right are examples of norms.

Steps
1. Paired discussion of Norms: List 6-10
2. Personal reflection: Choose or craft 2-3
3. Round Robin Share-Out
4. Questions for Clarification
5. Vote

Example Norms

1. Paying attention to Self and Others
2. All voices need to be heard
3. Ask for help - Give help
4. Pause to show Listening
5. Risk = Life
6. Seek 1st to Understand before Being Understood

Mediation Protocol

This protocol gives students a four-step process for addressing issues by teams and groups. The process empowers students to help individuals recognize the need to contribute through positive and constructive conversations. Teacher intervention starts at the third step, which helps build students agency to solve issues themselves.

Talk Moves

Use the chart (pdf) to teach and coach students on how to have professional conversations that are respectful, and inviting of engagement. These response prompts align closely with the Coaching charts.

Discussions and Reflections

Most discussions and reflections in each curriculum block include a written component in a discussion board. This activity supports learner thinking and processing. It also is a strategy to practice effective communication and the four parts of digital citizenship.

- Private Discussions
  Use a closed system for many posted discussions so that students get practice using appropriate language and word choice that represents conversations that are constructive and professional. Tools that support private conversations include:
  - Google Classroom
  - Schoology
  - Blackboard CourseSites
- Public Discussions
  As students develop a deep understanding of digital citizenship such as their digital footprint and relationship building, they should experience opportunities to participate on public forums. Prior to posting, have learners draft their ideas to reflect the T.H.I.N.K. poster.

T.H.I.N.K. before you Speak

T: Is it **TRUE**?
H: Is it **HELPFUL**?
I: Is it **INSPIRING**?
N: Is it **NECESSARY**?
K: Is it **KIND**?

Students can post comments through a variety of mediums from controlled spaces to more open platforms. Here are a few from most to least controlled:

- Classroom blogs and wikis (Blogger, WordPress, and Weebly)
- Classroom Flipgrid
- Social Media: Twitter, Instagram, Youtube, Tumblr, and Snapchat
- Review sites: Metacritic, Public Blogs & News Articles (comments), Stores (Amazon, Dell, and Barnes and Noble)
- Twitch (comments)

- **Conversation Starter Frames**
  Communication, spoken and written, is an art and a science. Developing good communicators requires a variety of tools. The coaching charts for communication and collaboration explored in the opening two weeks are one component. Another is providing starter stems for different aspects of conversation. Talk Moves (pdf) is one structure that provides a coaching guide to teach students how to have a discussion that is civil, constructive, and professional. Focus on one section at a time when having students practice the skills.

- **Other Protocols**
  There are other useful protocols that encourage students to work, problem solve, and reflect together.

  - School Reform Initiative
    This organization offers a wealth of protocols to be used for a variety of purposes. Check out their complete list.

Talk Moves

I Agree and Why?
- I agree with your answer, because .....
- I think your answer is right, because .....
- I got the same answer because you and I both .....
- I agree with your reasoning of ....

I Disagree and Why?
- I agree with ..... but .....
- I respectfully disagree with ...., and I think .....
- That's a good point, but .....
- I disagree with your idea of ....., and I think ....
- I disagree with your reasoning, and I think .....
- I know where you're coming from but I have a different idea

Add On
- I think you are right, but I also think ....
- That's a great idea, but don't you think ....
- I agree with ..... When they said ..... But I also want to add ...
- I think your right, but I also think ....

Ask a Probing Question
- What made you think that?
- How did you get that answer?
- Why is it important?
- What is your evidence?

Ask a Clarifying Question
- What do you mean by ...?
- Can you repeat that please.
- How do you know?
- So you are saying ....
- Can you say more about ....

Collaboration Strategies

Here is a curated list of protocols used for student learning through groups and teams. All are proven instructional strategies.

Feedback Protocols

As students develop prototypes and products, going through a cycle of feedback and revision is important. Towards this end, here are several tools to use for students to receive feedback that is positive, specific, and constructive.

The Charrette protocol (SRI)
Place three students into a group. One person (author/architect) shares her work to be discussed. The author/architect chooses the focus for the feedback received. Each person should get a turn going through the eight-minute protocol as the author/architect.

Charette

Step	Directions	Time
1.	Author shares description of work, driving question, and content standard(s) focus. Partner(s) listens and takes notes.	3 min.
2.	Author shares focus question and related context. Partner(s) listens.	1 min.
3.	Partner(s) shares suggestions & thoughts regarding the focus question. Author listens and takes notes.	2 min.
4.	Author and Partner(s) debrief the ideas. The author may ask additional questions for feedback.	2 min.

The Practice of Authentic PLCs: A Guide to Effective Teacher Teams By Daniel R. Venables
http://www.amazon.com/Practice-Authentic-PLCs-Effective-Teacher/dp/141298663X/

Tuning Protocol

This feedback protocol enables students and teams to get in-depth feedback about their product/prototype. Five or more participants giving feedback to the presenter(s) is a good size for the group. Choose a facilitator and a timekeeper. The facilitator reads aloud the Description to start each step. The steps define who talks and who listens and takes notes. The timekeeper keeps the time for each step and announces when time is up. The time should never be cut short if people stop talking. The silence is reflection time until someone speaks again.

Tuning Protocol: Large Group Phase 1

Phase	Task	Description	Time
1	Presentation to the Large Group	Presenter(s) describes the plan as follows: • Context for the plan • Goals that drive the plan • Focus Question for feedback	20 min.
2	Clarifying Questions from the Large Group	Audience asks short clarifying questions for more facts. Presenter(s) answers.	5 min.
3	Examination of the Plan	Participants read the plan documents, taking notes on where the plan seems "intune" with the stated goals and where there might be problems. Presenter(s) wait.	7 min.
4.	Pause to Reflect on Feedback	Participants silently and individually craft "I likes", "I wonders", and "what ifs". Presenter(s) wait.	2 min.
		Large group breaks into small groups as directed by the Facilitator.	
		Total:	34 min.

Gallery Walk for Feedback (Teacher Toolkit)

The gallery walk can be used for a variety of purposes. As a feedback tool, products and/or prototypes are placed in different areas of the room or posted along the walls. Students, individually or in groups of 2-3, walk to each artifact and post feedback using post-it notes or slips of paper. Two types of feedback are provided. The written comments start with the following prompts:

"I like…" or "I noticed…"

Identify something that is working well or is a strong feature.

"I wonder…"

Identify something that may be missing or could be further improved.

Starting with these starter stems frames the feedback as invitational for the recipient to decide on using it.

Global Professional Skills (GPS)

Teach, coach, and assess these key Global Professional Skills to students, such as:

- Communication and Collaboration
- Critical Thinking
- Creativity
- Research & Information Fluency

Here are resources to support this process:

1. **Coaching charts for Global Professional Skills (GPS)**
   Coaching charts provide students and teachers common language and observable behaviors for what a GPS looks like when practiced. Teachers use the Coaching chart(s) to guide students when there are off-task behaviors or actions that causes a team to struggle. Students use the chart(s) to reflect on their practice and monitor the actions of their peers when working together. Here are three draft examples:
   K-12 version - Secondary version 1 - Secondary version 2
2. **GPS Strategies List**
   This list of strategies were compiled by teachers from multiple states. Each section addresses a different Global Professional Skill: Research & Information Fluency, Collaboration & Communication, Critical Thinking & Problem Solving, and Creativity & Innovation. There are three columns for each section:

   a. Curriculum-Based Strategies
   b. Tech Tools/Strategies + SAMR Level
   c. Global Professional Skills Strategies

3. **Henrico 21**
   The site hosts a searchable list of lessons, projects, and units that teachers have implemented, which address curriculum content and at least one GPS. Included are teacher reflections on how they addressed their targeted Global Professional Skill(s). This school district's work revolves around their Henrico Learner Profile Progression, which is an in-depth guide and toolset for support students developing important GPS skills in the classroom and in gaming. Additionally, the HLP Playlist provides a guide with curated resources for diving deeply into these skills for enhanced impact in teaching and learning.

4. **Other Resources**
   A good place to start is the section: A Framework for 21st Century Learning. Edutopia is another resource. Here is an article on the topic: The Skills Colleges and Employers Are Looking For.

Implementation Steps for Global Professional Skills

1. Review the Coaching charts with teachers and students.
2. Make minor revisions to ensure language is student friendly to the learners.
3. Post charts in the room and/or on the tables/desks.
4. Revisit the charts at least 1-2 times a week through student reflection on teamwork or group tasks.

1. Review the coaching charts with teachers and students

Teachers and students should review the focus of each chart and the related behaviors; building common understanding of each focus area helps students to recognize how to build the behavioral skills and reflect on their success and growth. Teachers can coach using clear descriptors that help students understand what is being asked of them.

2. Make minor revisions to ensure language is student friendly to the learners

Encourage students to suggest any needed changes in the language to best relate the ideas to the classroom culture. The language must be concrete, observable, and related to the focus. It is recommended that most of the original language remain unchanged so as not to lose the core meaning and intentions behind the descriptions.

3. Post charts in the room and/or on the tables/desks

Students and teachers use the charts as a guide for their behavior towards mastering the focus skills. Once reviewed and minor revisions are made, post the charts on a wall where all students can see them. Or, place them on index cards that are kept on the table or desk clusters. Laminating the index cards will help them to last all year.

4. Revisit the charts at least 1-2 times a week through student reflection on teamwork or group tasks

Plan for formal opportunities for reflections, individual and group, at least twice a week. These occur after a student-led activity or small group task. Have students reflect on the chart

indicators that best represent the successes and challenges that occurred, based on the students' perspective. Also, teachers use the charts to do just-in-time coaching as opportunities appear, both positive and challenging situations.

Coaching Charts for Learners

What follows are suggested charts to be posted in the classroom and shared with students. Use them with students before and after group activities, scrims (scrimmages), and other opportunities for professional interactions.

Communication
I listen to others: Make eye contact Nod when I understand or agree Give full attention by not multitasking I clearly share my ideas. I use pitch, volume, and tone to express thoughts in appropriate manners. I ask appropriate questions and invite others to participate. I am considerate of others' opinions, backgrounds and beliefs.
Collaboration
I listen to others' ideas and questions. I actively contribute to the group's work/conversations. I ask for help and offer help depending on the need. I give kind, specific and helpful feedback. I take initiative to ensure that my tasks and those of the team are complete (agency).
Engineering Design Thinking Process
See the complete chart components in the section below regarding Engineering Design Process.

Engineering Design Thinking Process

Design Thinking is a combination of problem solving and innovation. Finding the best thinking process to help students evaluate and reflect on their progress and thinking development is important. Engineering Design can be one approach. Review this section for supporting students with coaching charts and deeper thinking about their thinking during completion of the esports modules.

Overview

1. Ask
2. Imagine
3. Plan
4. Create
5. Test
6. Improve

The Engineering Design Process (EDP) helps students and professionals explore, ideate, and design products and artifacts that serve a purpose or need. The process is a “way of thinking” that uses a framework for critical thinking and problem solving combined with feedback and revision for deep innovation and/or creativity.

Feedback, Reflection, and Revision Cycles

The EDP should be seen as phases, not steps. It is not a linear process. Previous phases are revisited as often as needed. A prototype’s failure could lead to minor new builds to a complete reimagining of the solution. As in writing and the arts, engineering products can get stronger in quality through feedback and revision processes. As a result, it’s important to include weekly opportunities for students to run feedback protocols, potentially during any phase of the EDP. Not every phase needs a formal feedback protocol, however keep the option open depending on the needs of the students.

Through reflection, students take time to review the feedback and decide which has merit to build into their work. Providing time for reflection signals to students that it is valuable to pause in the “doing” to consider options that might make the work more efficient and higher quality.

Absent the formal time given, students may rush to make changes that might not be the best options or miss an opportunity to work through an earlier phase of the EDP to develop a more powerful upgrade.

Engineering Design Phases (EDP)

Phase	Description	Student Examples	Resources
Ask	Identify the needs & constraints. Research the problem or opportunity. *CL/R	• Talk to clients & experts • Read & discuss articles • Collect information on the topic • Meet with librarians & media specialists	• Gallery Walk • Video conferencing: Skype, Zoom, Google Hangout • Library, online & physical
Imagine	Develop possible solutions and/or operations.	• Brainstorming sessions • Journaling/Sketching • Discuss with clients & experts	• Chalk Talk • Fishbowl • Google Draw • Video conferencing
Plan	Select a promising solution and map the design. *OPF / *CL/R	• Outlining or webbing • Storyboard: Index cards, post-it notes, or ppt slides • Create drawings	• Gallery Walk • Index cards, post-it notes, or ppt slides • Google Draw
Create	Build a prototype. *CL/R	• Scaled replica • 3D print • Computer programing • Work alongside an expert	• Building materials • Software • Video conferencing
Test	Evaluate the prototype for its effectiveness and bugs to be fixed. *OPF / *CL/R	• Demonstrate for clients or experts • Field testing • Run a Feedback Protocol, especially a more in-depth one	• Video recording • Fishbowl • Video conferencing
Improve	Redesign and or ideate further as needed. *OPF / *CL/R	• Review feedback and notes • Determine the phase to return to for revisions • Work alongside an expert	• Feedback Protocols • Team discussions • Video conferencing
Share	Show or present to a public audience. *CL/R	• Live demonstration • Video recorded presentation • Online publication • Submit to a client	• Presentation • Video recording app • Video conferencing

*OPF = Opportunity for conducting a Feedback Protocol for possible revisions

*CL/R = Qualitative Criteria List or Rubric for use by students, teachers, and stakeholders

Engineering Design Coaching Charts

Phase	Description	Chart
Ask	Identify the needs & constraints. Research the problem or opportunity. *CL/R	• I ask questions: Open-ended for broader ideas and information Closed-ended for specific details & narrow the focus • I use a variety of valid sources for information • I discuss different needs & problems with peers and others
Imagine	Develop possible solutions and/or operations. Do not just go with the first good idea. *OPF	• I listen and encourage others to share ideas • I keep generating ideas until I have at least 3 strong options • I help list ideas without critiquing • I do more research as needed
Plan	Select a promising solution and map the design. *OPF / *CL/R	• I sort and organize components to find the best fit • I use a variety of outlining strategies • I give and get feedback on the details
Create	Build a prototype. *CL/R	• I follow the plan to build • I use the qualitative criteria list or rubric to check for completing expectations • I assist team members and ask for help as needed
Test	Evaluate the prototype for its effectiveness and bugs to be fixed. *OPF / *CL/R	• I give feedback that is specific, constructive, and kind • I use a guide or process to evaluate the prototype • I listen to feedback and consider others' ideas • I collect data from at least 3 different points of view
Improve	Redesign and or ideate further as needed. *OPF / *CL/R	• I reflect on feedback • I get 1-2 ideas to improve the prototype • I go to different phases to make improvements as needed • I support my team with questions and ideas through reflection
Share	Show or present to a public audience. *CL/R	• I practice alone and with the team to be polished • I seek feedback from others about my practice • I use strong communication skills

*OPF = Opportunity for conducting a Feedback Protocol for possible revisions

*CL/R = Qualitative Criteria List or Rubric for use by students, teachers, and stakeholders

Digital Citizenship Resources

1. ISTE Standards for:
   Educators
   Students
   These standards inform instructional decisions through digital citizenship elements for concrete practice. Also available is a poster: **The New Digital Citizenship**. This poster provides a helpful graphic organizer for the newly organized components for Digital Citizenship by ISTE.

2. 9 Elements for Digital Citizenship
   This important guide lays out the context for students to become strong digital citizens.

3. REMC Association of Michigan:
   21Things4Students
   21Things4Teachers
   The REMC Association of Michigan provides access to valuable resources for implementing digital citizenship through well-developed activities.

4. Common Sense Media (CSM):
   This site provides access to curriculum that focuses on developing digital citizens, K through 12.

5. Teacher Channel: 30 videos about Digital Citizenship
   These videos can be used for reflection on practice in learning teams with colleagues. There are many examples of practice and interviews for gaining insights by others.

Strategies and Tactics Note Taking

Enter notes in the box below each section:

Name:
Avatar The character that a player operates in the game during the competition. Some examples include: champions, gods, and cars.
Game Theory The actions of a player or team for success are dependent and impacted by the actions of the opposing player or team. (Oxford Dictionary)
Macro Play Whole view of the game, such as the map or field or team for planning strategic moves to obtain an objective or victory.
Micro Play Narrow view of one position in the map or field or player. Focus for strategic impact in that specific area to obtain an objective.
Game Mechanics Components or elements of a game that shape the user experience and mechanisms for successful play. For example, buffs, equipment, skills, experience points, and levels.
Objectives Opportunities in the game to complete a task that gives a player or team an advantage over the oppositions that may lead to victory.
Win Conditions Based on a player or team's game assets, like champions and skills, a projection is made as to what steps need to be accomplished for objectives, macro and micro play, and other strategies that could lead to a victory, depending on the response by the opposing team.

In-game Skills Player avatars receive skills and items (buffs) that can make them stronger over time.
Strategies These are the plans that players and teams develop and attempt to implement for gaining advantages and a victory over the other team. Strategies are often adapted once a game starts, depending on the responding counter strategies of the opposing player or team.

Rubrics/Qualitative Criterion Checklists

Content Production Rubric

For purposes of the two production modules, the following rubrics are provided to support the students' work. Unlike traditional rubrics that may have 3 or 4 columns, these are single column rubrics. They are sometimes called Quality Criterion Checklists. The purpose here is to describe quality that meets expectations. The teacher and/or students review the evaluation indicator and write notes in the space to the right as to where the indicator is met, exceeded, or has needed areas for improvement. Feel free to use or adapt the provided rubrics for your purposes.

What follows is an explanation of each indicator, followed by the rubrics:

Pre-Production

- **Research:**
  Deep background knowledge of esports and the participants is key to a rich experience. Much of this understanding will likely not be in the final product. However, the knowledge will permeate the dialog and content choices. The intended audience plays a crucial role as they will engage and judge the product based on their understanding of esports.
- **Planning:**
  Pre-planning is a critical part of preparing a strong product or performance. Students will gain practice making clear planning steps for their work so that they can self-evaluate its progress and needs.
- **Process:**
  Critique and revision are key tools for developing high quality products. It's an important way to ensure through multiple drafts that the final product or performance is strong. Remember: The first draft is never the best draft. Students are also learning how to give and receive feedback that is specific, constructive, and kind. Communication skills are honed through these experiences.
- **Collaboration:**
  Supporting and relying on each other is important for a quality product to be developed. Use the coaching chart and this rubric section to help students recognize the behaviors and actions that supports everyone involved.

Post-Production

- **Esports Knowledge:**
  Understanding esports in all its facets is important to developing a rich and enjoyable experience for the audience. The students need to demonstrate a level of knowledge that an informed audience will respect or that ones with limited knowledge can follow along without getting lost.
- **Organization of Ideas**
  The flow of a production needs to make sense to an audience, so that they have a satisfying experience and can follow along with the commentary. Be intentional about what is discussed or shared, what background is needed, and the order of ideas that makes the most sense.
- **Mechanics**
  Similar to writing, how something is recorded or spoken affects the audience experience. In the options for products, a professional approach is needed. Simply put, use appropriate language and sequence what is said in complete thoughts. Avoid disjointed statements that do not make easy sense. It's understood that spoken word does not mean grammatically correct complete sentences. However, a complete thought with word choice will equate as the same.
- **Voice & Tone**
  Commentating is lively with energy. Avoid speaking in a monotone or robotic (unless there is an intention behind doing so for just one segment of the product). Effective communication that engages an audience relies on an intentional use of pitch and emotion that matches the moment, such as being excited around a key moment in the game or showing calm when answering a question about a game mechanic.

Pre-Production Criteria

	Meets Expectations	Notes: Meets, Needs, Exceeds
Research	Builds background knowledge through reviews of articles and videos. Evidence includes: • a formal or informal bibliography list • notes about players, teams, and games • Reflection on progress: written and/or recorded.	
Planning	The composed plan is detailed, including: • Action steps from the first steps of pre-production to the final steps of post-production. Includes assigned roles shared at each step. • A detailed outline or storyboard for the production being developed. • Reflection on progress: written and/or recorded.	
Process	Throughout the steps, the plan and products are reviewed, discussed, and revised, resulting in several drafts towards quality final products. • Critique & feedback occurs several times using formal protocols and informal methods as evidenced by notes and documents. • Revisions are made based on feedback as indicated by draft versions and notes. • Reflection on process: written and/or recorded.	
Collaboration	Supports others for their independent responsibilities and seeks support to complete own tasks as needed. • Gives support unsolicited or when asked. • Asks for support where needed, at minimum for feedback. • Shows reliability by completing tasks. • Reflection on process: written and/or recorded.	

Post-Production Criteria

	Meets Expectations	Notes: Meets, Needs, Exceeds
Esports Knowledge	Demonstrates understanding of the esports rules, strategies, teams, players, and game mechanics. • Able to explain in terms that fits knowledge level of the intended audience. • Accurate description of the action. • Frequently uses specificity to describe or analyze the action, player, or team. • Demonstrates knowledge of the game through relevant commentary.	
Organization of Ideas	The continuity and/or narrative of the product is clear and follows a logical progression. • Each idea builds on the previous content/commentary. • Game references and knowledge when shared is relevant to the moment and the intended audience. • Commentary or analysis builds strong connections to previous content shared and the state of the game.	
Mechanics	Content and language are clear and appropriate to make the product understandable to the audience. • Language used is complete in thought and, mostly, complete sentences (where appropriate). • Slang is minimal, except for appropriate gaming culture language. • Word choice is intentional and respectful.	
Voice & Tone	Oral and recorded communications are professional, respectful, and engaging. • Uses pitch and emotion intentionally to engage the audience (i.e.. excitement, serious, questioning, skeptical). • Communication is clear and loud enough to understand without needing subtitles. • Communication always maintains a respectful manner .	

Rubric for Written and Recorded Products

	Meets Expectations	Notes: Meets, Needs, Exceeds
Organization of Ideas	The continuity and/or narrative of the product is clear and follows a logical progression. • Each idea builds on the previous content/commentary. • Related topic knowledge relevant to the focus and the intended audience. • Commentary or analysis builds strong connections to previous content shared and the topic focus.	
Mechanics	Content and language are clear and appropriate to make the product understandable to the audience. • Language used is complete in thought and, mostly, complete sentences (where appropriate). • Slang is minimal, except for appropriate gaming culture language. • Word choice is intentional and respectful.	
Voice & Tone	Written, Oral and recorded communications are professional, respectful, and engaging. • Uses word choice and tone intentionally to engage the audience • Communication is clear and loud enough to understand without needing subtitles. • Communication always maintains a respectful manner.	

Computer Science Standards Alignment

Computer Science Standards - Alignment by Modules

Networks & Internet: Cybersecurity	**Data & Analysis:** Storage	**Data & Analysis:** Collection, Visualization, & Transformation	**Data & Analysis:** Inference & Models
Digital Citizenship in Gaming Culture Portfolio Analysis and Preparations Social Media & Branding	Content Production: Exploring Opportunities Portfolio Analysis and Preparations Content Production: Live Action	Content Production: Exploring Opportunities Team Strategies/Tactics Business Overview Social Media & Branding Fitness and Nutrition for Esports Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports	Content Production: Exploring Opportunities Team Strategies/Tactics Content Production: Live Action Fitness and Nutrition for Esports
Algorithms & Programing: Algorithms	**Impacts of Computing:** Culture	**Impacts of Computing:** Social Interactions	**Impacts of Computing:** Safety, Law, & Ethics
Team Strategies/Tactics	Esports Culture Building Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Operations Overview Portfolio Analysis and Preparations Business Overview Content Production: Live Action Social Media & Branding Fitness and Nutrition for Esports Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports	Esports Culture Building Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Operations Overview Team Strategies/Tactics Portfolio Analysis and Preparations Esports Job Shadowing Experiences Business Overview Content Production: Live Action Social Media & Branding College Esports and Recruitment Fitness and Nutrition for Esports Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports	Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Content Production: Live Action Social Media & Branding

Reference: **Computer Science Standards** (**pdf chart**)

Module Activities Aligned to the Computer Science Standards Indicators

Esports Culture Building	
Impacts of Computing: Culture • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2) • 3A-IC-26: Demonstrate ways a given algorithm applies to problems across disciplines. (P3.1)	2-IC-21, 3A-IC-24 Students will explore the fun and toxic parts of gaming culture, including issues of bias, and ethical and social actions in digital communities. 3A-IC-26 They will create a gaming culture based on drafting norms and a gamer code of conduct that everyone agrees to follow.
Impacts of Computing: Social Interactions • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	Students will create a gaming culture based on drafting and following norms and a gamer code of conduct that everyone agrees to follow.
Digital Citizenship in Gaming	
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2) • 3A-IC-25: Test and refine computational artifacts to reduce bias and equity deficits. (P1.2)	2-IC-20, 3A-IC-24 Explore the effects and impact that one's actions via digital footprint can have on others, including bullying and bias based on gender and ethnicity. 3A-IC-25 Examine, practice, and reflect on positive behaviors that reduce poor treatment of others from both explicit and implied actions.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Impacts of Computing: Safety, Law, & Ethics	2-IC-23, 3A-IC-29, 3A-IC-30 Students will explore the value and purpose for protecting personal information in a virtual

• 2-IC-23: Describe tradeoffs between allowing information to be public and keeping information private and secure. (P7.2) • 3A-IC-29: Explain the privacy concerns related to the collection and generation of data through automated processes that may not be evident to users. (P7.2) • 3A-IC-30: Evaluate the social and economic implications of privacy in the context of safety, law, or ethics. (P7.3)	environment. They will evaluate the pros and cons about sharing levels of personal information with others in a gaming and virtual environment, including user agreements and targeted advertisements.
Networks & Internet: Cybersecurity • 2-NI-05: Explain how physical and digital security measures protect electronic information. (P7.2) • 2-NI-06: Apply multiple methods of encryption to model the secure transmission of information. (P4.4) • 3A-NI08: Explain tradeoffs when selecting and implementing cybersecurity recommendations. (P7.2)	2-NI-05, 2-NI-06, 3A-NI08 Students will build understanding and awareness of good and poor security practices and tools, while reviewing the impacts for each. They will examine their own practices and evaluate areas for improvement.
Content Production: Exploring Opportunities	
Data & Analysis: Storage • 2-DA-07: Represent data using multiple encoding schemes. (P4.0) • 3A-DA-10: Evaluate the tradeoffs in how data elements are organized and where data is stored. (P3.3)	2-DA-07 Students will become knowledgeable of storage file types for data for production and recording purposes, such as file types for video, images, and audio. 3A-DA-10 Use knowledge of file types to best determine options for editing and production.
Data & Analysis: Collection, Visualization, & Transformation • 2-DA-08: Collect data using computational tools and transform the data to make it more useful and reliable. (P6.3) • 3A-DA-11: Create interactive data visualizations using software tools to help others better understand real world phenomena. (P4.4)	2-DA-08, 3A-DA-11 Students may explore sharing data to evaluate strengths and weaknesses of team play, itemization, and/or champion abilities. Some data may be presented visually to further illustrate key ideas and understandings.
Data & Analysis: Inference & Models	2-DA-09, 3A-DA-12

• 2-DA-09: Refine computational models based on the data they have generated. (P5.3, P4.4) • 3A-DA-12: Create computational models that represent the relationships among different elements of data collected from a phenomenon or process. (P4.4)	Students may explore game analysis for review of team performance and evaluation of positional roles.
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-25: Test and refine computational artifacts to reduce bias and equity deficits. (P1.2)	2-IC-20 Students will experience and examine career roles via production. 2-IC-21, 3A-IC-25 During production and post-production, students will go through a planning and editing process to evaluate and adjust areas of bias.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Impacts of Computing: Safety, Law, & Ethics • 2-IC-23: Describe tradeoffs between allowing information to be public and keeping information private and secure. (P7.2) • 3A-IC-30: Evaluate the social and economic implications of privacy in the context of safety, law, or ethics. (P7.3)	2-IC-23, 3A-IC-30 Students will build understanding about protecting private information about the players and others who may be including in live and recorded productions that are posted publicly. They will review Digital Citizenship (ISTE) concerns and consideration.
Content Production: Live Action Preparations	
Data & Analysis: Storage • 2-DA-07: Represent data using multiple encoding schemes. (P4.0) • 3A-DA-10: Evaluate the tradeoffs in how data elements are organized and where data is stored. (P3.3)	2-DA-07 Students will deepen knowledge of storage file types for data for production and recording purposes, such as file types for video, images, and audio.

	3A-DA-10 Use knowledge of file types to best determine options for editing and production.
Data & Analysis: Inference & Models • 2-DA-09: Refine computational models based on the data they have generated. (P5.3, P4.4) • 3A-DA-12: Create computational models that represent the relationships among different elements of data collected from a phenomenon or process. (P4.4)	2-DA-08, 3A-DA-11 Students may explore sharing data to evaluate strengths and weaknesses of team play, itemization, and/or champion abilities. Some data may be presented visually to further illustrate key ideas and understandings.
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2) • 3A-IC-25: Test and refine computational artifacts to reduce bias and equity deficits. (P1.2) • 3A-IC-26: Demonstrate ways a given algorithm applies to problems across disciplines. (P3.1)	2-IC-20 Students will experience and examine career roles via production. 2-IC-21, 3A-IC-25 During production and post-production, students will go through a planning and editing process to evaluate and adjust areas of bias. 3A-IC-24 Students who design tournaments or games for a digital esports experience will factor impacts based on personal, ethical, social, economic, and cultural impact such as accessibility without financial barriers. 3A-IC-26 Students will explore how the editing process is similar to the writing process for producing and revising papers and artifacts.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.

• 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	
Impacts of Computing: Safety, Law, & Ethics • 2-IC-23: Describe tradeoffs between allowing information to be public and keeping information private and secure. (P7.2) • 3A-IC-30: Evaluate the social and economic implications of privacy in the context of safety, law, or ethics. (P7.3)	2-IC-23, 3A-IC-30 Students will build understanding about protecting private information about the players and others who may be including in live and recorded productions that are posted publicly. They will review Digital Citizenship (ISTE) concerns and consideration.
Operations Overview	
Impacts of Computing: Culture • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2)	2-IC-21, 3A-IC-24 As students research and learn about the different roles in Operations, they will examine opportunities and accessibility in the workforce.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Strategies/Tactics	
Data & Analysis: Collection, Visualization, & Transformation • 2-DA-08: Collect data using computational tools and transform the data to make it more useful and reliable. (P6.3) • 3A-DA-11: Create interactive data visualizations using software tools to help others better understand real world phenomena. (P4.4)	2-DA-08, 3A-DA-11 Students will explore in-game mechanics for how best to maximize for quality performance of play, such as itemization and champion abilities.
Data & Analysis: Inference & Models • 2-DA-09: Refine computational models based on the data they have generated. (P5.3, P4.4)	2-DA-09, 3A-DA-12 Students will explore other aspects such as macro and micro play. Through analysis of team

• 3A-DA-12: Create computational models that represent the relationships among different elements of data collected from a phenomenon or process. (P4.4)	and player performance, they will provide analytics that help to understand strengths and challenges.
Algorithms & Programing: Algorithms • 1B-AP-08: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. (P6.3, P3.3) • 2-AP-10: Use flowcharts and/or pseudocode to address complex problems as algorithms. (P4.4, P4.1) • 3A-AP-13: Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests. (P5.2)	1B-AP-0, 2-AP-10, 3A-AP-13 Students will take a close look at different combos for the best play mechanics in games. These algorithms, identified and created, will help students identify best practices for play. Students can display them through a variety of modalities for maximum display.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Fitness and Nutrition for Esports	
Data & Analysis: Collection, Visualization, & Transformation • 2-DA-08: Collect data using computational tools and transform the data to make it more useful and reliable. (P6.3) • 3A-DA-11: Create interactive data visualizations using software tools to help others better understand real world phenomena. (P4.4)	2-DA-08, 3A-DA-11 Students will collect and display data in ways to make stronger the ideas about fitness needs due to office worker related injuries and/or nutrition needs.
Data & Analysis: Inference & Models • 2-DA-09: Refine computational models based on the data they have generated. (P5.3, P4.4) • 3A-DA-12: Create computational models that represent the relationships among different elements of data collected from a phenomenon or process. (P4.4)	2-DA-09, 3A-DA-12 Students will collect and display data in ways to make stronger the ideas about fitness needs due to office worker related injuries and/or nutrition needs.

Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2)	Students can study various apps for exercise and nutrition data collection to determine value, impact on everyday activities, ethical, social, economic, and cultural practices.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Business Overview	
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2)	2-IC-20, 2-IC-21, 3A-IC-24 Students will research an organization for understanding what they do and the history of their organizational culture as part of the profile built about them.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Women and Gender Equity in Sports Culture	
Data & Analysis: Collection, Visualization, & Transformation • 2-DA-08: Collect data using computational tools and transform the data to make it more useful and reliable. (P6.3)	2-DA-08, 3A-DA-11 Students will collect and display data to highlight challenges and opportunities for addressing needs based on gender equity.

• 3A-DA-11: Create interactive data visualizations using software tools to help others better understand real world phenomena. (P4.4)	
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2)	2-IC-20, 3A-IC-24 Through the use of digital tools, students will collect, analyze, and discuss issues and biases of gender inequality in various aspects of the esports industry from gaming to careers.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Mindfulness and Mental Health for Esports	
Data & Analysis: Collection, Visualization, & Transformation • 2-DA-08: Collect data using computational tools and transform the data to make it more useful and reliable. (P6.3) • 3A-DA-11: Create interactive data visualizations using software tools to help others better understand real world phenomena. (P4.4)	2-DA-08, 3A-DA-11 Students will collect and display data to highlight challenges and opportunities for addressing needs based on mental health
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2) • 3A-IC-25: Test and refine computational artifacts to reduce bias and equity deficits. (P1.2)	2-IC-20, 3A-IC-24 Students will research and explore the challenges around digital citizenship behaviors that contribute to toxicity that impact mental health. Students will collect and display data to highlight challenges and opportunities for addressing needs based on mental health. 3A-IC-25

	Students will explore strategies and solutions for practicing healthy behaviors for mindfulness and mental health.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Social Media & Branding	
Networks & Internet: Cybersecurity • 2-NI-05: Explain how physical and digital security measures protect electronic information. (P7.2) • 2-NI-06: Apply multiple methods of encryption to model the secure transmission of information. (P4.4) • 3A-NI06: Recommend security measures to address various scenarios based on factors such as efficiency, feasibility, and ethical impacts. (P3.3)	2-NI-05, 2-NI-06, 3A-NI06 Students will review the importance of good security around passwords and multi-step protections as it impacts social media accounts and identity theft.
Data & Analysis: Collection, Visualization, & Transformation • 2-DA-08: Collect data using computational tools and transform the data to make it more useful and reliable. (P6.3) • 3A-DA-11: Create interactive data visualizations using software tools to help others better understand real world phenomena. (P4.4)	2-DA-08, 3A-DA-11 Students will collect, analyze, and display data about the social media impact of an organization based on selected accounts. They will include representations of the data visually for greater impact and understanding.
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2)	2-IC-20, 2-IC-21, 3A-IC-24 Students will evaluate their chosen organization's social media posts for any history of explicit or implied bias. They will explore the implications for how the organization and its representatives represent themselves.

Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Impacts of Computing: Safety, Law, & Ethics • 2-IC-23: Describe tradeoffs between allowing information to be public and keeping information private and secure. (P7.2) • 3A-IC-30: Evaluate the social and economic implications of privacy in the context of safety, law, or ethics. (P7.3)	2-IC-23, 3A-IC-30 Students will build understanding for how an organization uses social media, while respecting privacy of individuals and the company.
College Esports and Recruitment	
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Esports Job Shadowing Experiences	
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.
Portfolio: Analysis and Preparations	
Networks & Internet: Cybersecurity • 2-NI-06: Apply multiple methods of encryption to model the secure transmission of information. (P4.4)	2-NI-06, 3A-NI06

• 3A-NI06: Recommend security measures to address various scenarios based on factors such as efficiency, feasibility, and ethical impacts. (P3.3)	Students will review and apply practices to protect their digital portfolio from cyber-attacks and identity theft.
Data & Analysis: Storage • 2-DA-07: Represent data using multiple encoding schemes. (P4.0) • 3A-DA-10: Evaluate the tradeoffs in how data elements are organized and where data is stored. (P3.3)	2-DA-07, 3A-DA-10 Students will consider best file types for collection of their portfolios, including how best to organize it for potential college recruiters and employers.
Impacts of Computing: Culture • 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2) • 3A-IC-25: Test and refine computational artifacts to reduce bias and equity deficits. (P1.2)	2-IC-20, 3A-IC-24 Students will analyze and synthesize information in their portfolio to ensure maximum removal of bias. 2-IC-21, 3A-IC-25 They will also design the structure for easy accessibility through various rounds of review and revision.
Impacts of Computing: Social Interactions • 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	2-IC-22, 3A-IC-27 Students will use various tools for digital collaboration about the module topics, including video conferencing tools like Zoom or Google Meets and collaborative editing tools such as Google Docs, Slides, and Forms.

Complete Breakout of Computer Standards Concepts Alignment to the Esports Modules

Networks & Internet			Modules
	Cybersecurity	• 2-NI-05: Explain how physical and digital security measures protect electronic information. (P7.2) • 2-NI-06: Apply multiple methods of encryption to model the secure transmission of information. (P4.4) • 3A-NI05: Give examples to illustrate how sensitive data can be affected by malware and other attacks. (P7.2) • 3A-NI06: Recommend security measures to address various scenarios based on factors such as efficiency, feasibility, and ethical impacts. (P3.3) • 3A-NI07: Compare various security measures, considering tradeoffs between the usability and security of a computing system. (P6.3) • 3A-NI08: Explain tradeoffs when selecting and implementing cybersecurity recommendations. (P7.2)	Digital Citizenship in Gaming Culture Portfolio Analysis and Preparations Social Media & Branding
Data & Analysis			**Modules**
	Storage	• 2-DA-07: Represent data using multiple encoding schemes. (P4.0) • 3A-DA-10: Evaluate the tradeoffs in how data elements are organized and where data is stored. (P3.3)	Content Production: Exploring Opportunities Portfolio Analysis and Preparations Content Production: Live Action
	Collection, Visualization, & Transformation	• 2-DA-08: Collect data using computational tools and transform the data to make it more useful and reliable. (P6.3) • 3A-DA-11: Create interactive data visualizations using software tools to help others better understand real world phenomena. (P4.4)	Content Production: Exploring Opportunities Team Strategies/Tactics Business Overview Social Media & Branding Fitness and Nutrition for Esports

			Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports
	Inference & Models	• 2-DA-09: Refine computational models based on the data they have generated. (P5.3, P4.4) • 3A-DA-12: Create computational models that represent the relationships among different elements of data collected from a phenomenon or process. (P4.4)	Content Production: Exploring Opportunities Team Strategies/Tactics Content Production: Live Action Fitness and Nutrition for Esports
Algorithms & Programing			**Modules**
	Algorithms	• 1B-AP-08: Compare and refine multiple algorithms for the same task and determine which is the most appropriate. (P6.3, P3.3) • 2-AP-10: Use flowcharts and/or pseudocode to address complex problems as algorithms. (P4.4, P4.1) • 3A-AP-13: Create prototypes that use algorithms to solve computational problems by leveraging prior student knowledge and personal interests. (P5.2)	Team Strategies/Tactics
Impacts of Computing			**Modules**
	Culture	• 2-IC-20: Compare tradeoffs associated with computing technologies that affect people's everyday activities and career options. (P7.2) • 2-IC-21: Discuss issues of bias and accessibility in the design of existing technologies. (P1.2) • 3A-IC-24: Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices. (P1.2) • 3A-IC-25: Test and refine computational artifacts to reduce bias and equity deficits. (P1.2)	Esports Culture Building Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Operations Overview Portfolio Analysis and Preparations

		• 3A-IC-26: Demonstrate ways a given algorithm applies to problems across disciplines. (P3.1)	Business Overview Content Production: Live Action Social Media & Branding Fitness and Nutrition for Esports Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports
	Social Interactions	• 2-IC-22: Collaborate with many contributors through strategies such as crowdsourcing or surveys when creating a computational artifact. (P2.4, P5.2) • 3A-IC-27: Use tools and methods for collaboration on a project to increase connectivity of people in different cultures and career fields. (P2.4)	Esports Culture Building Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Operations Overview Team Strategies/Tactics Portfolio Analysis and Preparations Esports Job Shadowing Experiences Business Overview Content Production: Live Action Social Media & Branding College Esports and Recruitment Fitness and Nutrition for Esports

			Women and Gender Equity in Sports Culture Mindfulness and Mental Health for Esports
	Safety, Law, & Ethics	• 2-IC-23: Describe tradeoffs between allowing information to be public and keeping information private and secure. (P7.2) • 3A-IC-29: Explain the privacy concerns related to the collection and generation of data through automated processes that may not be evident to users. (P7.2) • 3A-IC-30: Evaluate the social and economic implications of privacy in the context of safety, law, or ethics. (P7.3)	Digital Citizenship in Gaming Culture Content Production: Exploring Opportunities Content Production: Live Action Social Media & Branding