Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tinkercad Invention Quest

Quest:

For this quest you will be an inventor! Imagine you are a product designer. You will use Tinkercad software to design your very own invention or everyday object. This invention should solve a problem or change how we interact with the world. Be creative! Have fun!

Part 2: Identify a problem

Jot down as many problems that solving that you can think of. No wrong answers. For example, unloading the dishwasher, what if there was a way for the dishes to put themselves away? Or switching the clothes from the washer to the dryer, what if we didn't have to switch it ourselves? Is there a species or populations that needs help? Think of the objects you use everyday. How could they be improved? Anything goes! This a mind dump where you get as many things out of your head and onto the paper as you can! Think big!



Part 3: Invention Brainstorm

What does your invention do? Or what is its purpose? It is easiest to create an object than say something like, electricity. 

Part 4: Sketch

Draw a quick sketch of what your invention might look like:

* Now look closely at what you have drawn. Where do see shapes? Highlight them. You will use these shapes to design in Tinkercad.

Part 5: Tutorials

Complete steps for login as explained by your teacher

Write down your

username:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ password:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Click on learn and then complete the tutorials listed below

|  |  |
| --- | --- |
| Complete Step by Step BASICS | |
|  | 1. Learning Moves |
|  | 2.Camera controls |
|  | 3. Creating holes |
|  | 4. Scale, copy and paste |
|  | 5. Keyring letters |
|  | 6. Die on the workplane |

Click on projects

Click on See more projects

Complete the tutorials

|  |  |
| --- | --- |
| Let’s Learn Tinker CAD Lessons- Check off once you have completed the lessons | |
|  | 1. Getting started navigation menu |
|  | 2. Testing your new navigation skills |
|  | 3. Moving Rotation and Scaling Object |
|  | 4. Making and manipulating, grouped objects |
|  | 5. Use the align tools and the workplane helper |

Part 6: Design your Invention in Tinkercad

Now for the fun part! Use what you have learned from the tutorials to recreate your invention in Tinkercad. Check off the requirements as you go:

Used multiple shapes

Invention has been considered from all angles

At least one hole was created

File name is: lastname\_invention

Shared with teacher when finished

Part 7: Wrap up:

Name of your invention\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What problem does your invention solve?

What does your invention do?

Based on what we learned about the definition of technology, how does change how we (or whatever group your invention helps) interact with the world?

Tinkercad Invention Rubric:

|  |  |
| --- | --- |
| Brainstorm completed | /10 |
| Sketched out invention and highlighted shapes | /10 |
| Created a design in tinkercad that used multiple shapes | /10 |
| Invention has been considered from all angles | /10 |
| At least one hole was created | /10 |
| Correct file name | /10 |
| Creativity- student was inventive and original | /10 |
| Used class time well | /10 |
| Student can explain what the invention does | /10 |
| Student can explain what problem the invention solves | /10 |
| TOTAL |  |