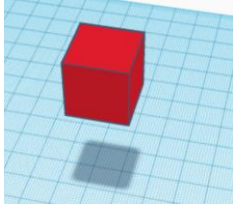


Tinkercad Shadows

Due: 4th period: Monday 9/21/20 midnight

3rd & 7th periods: Tuesday 9/22/20 midnight

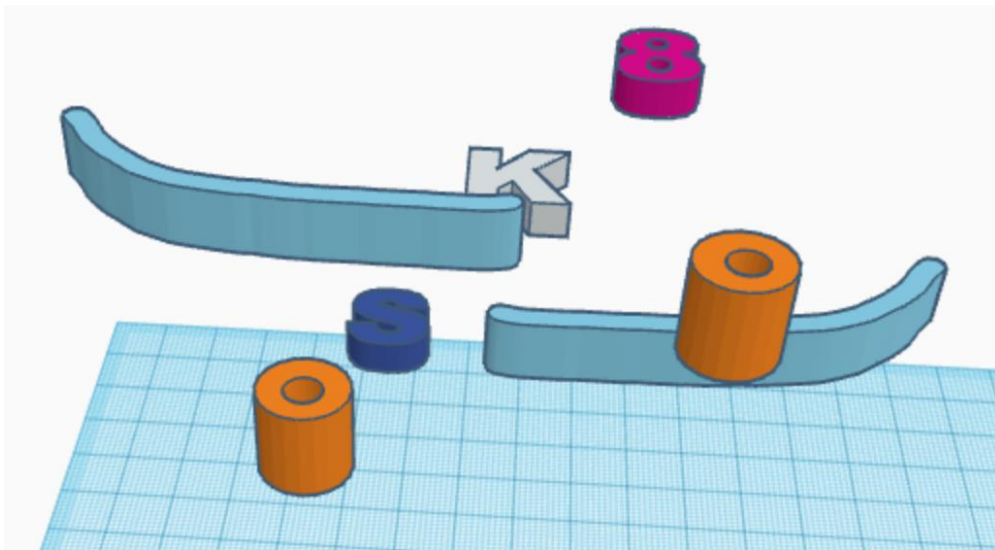
Tinkercad objects raised up off of the workplane show a shadow. For example, look at the shadow below this rectangle object:



Today's assignments have to do with using the shadows to create interesting images. First, you will create a simple shadow image.

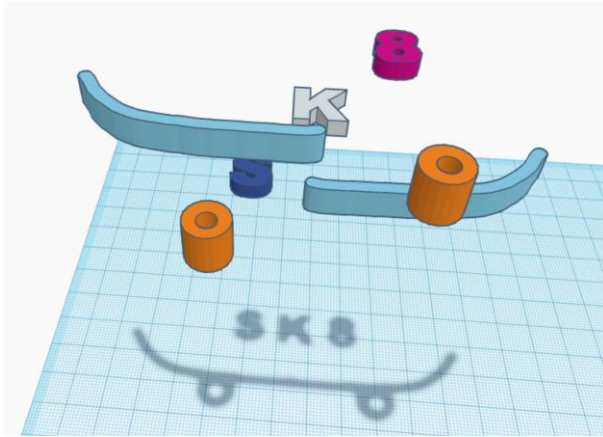
Part 1

Arrange at least 8 objects in a Tinkercad project in such a way that they make an interesting shadow that makes a recognizable thing or message. The shadow should be clear and easy to see, while the objects should each be at a different height, spread about, so that it is not easy to see what they will create with their shadows just by looking at the objects. Here is an example I created. Look at the objects:



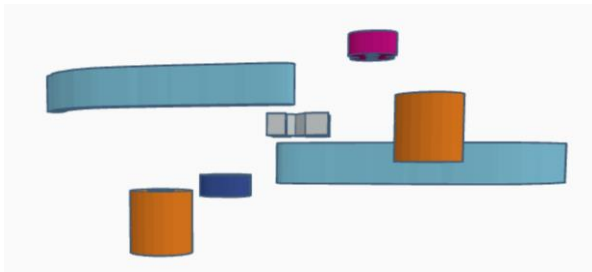
Can you tell what their shadows will create down below?

Go to the next page to see.



The above project uses 9 objects (two are "hole" cylinders that make the wheels.) The shadow says "SK8" for "skate" and shows a skateboard. You may have been able to figure it out from the objects, this is not a very complicated one, obviously.

No more than half of the objects can be text or letter objects. Also, notice that from the side, none of the objects are at the exact same level. This is part of the assignment: make it so the pieces that make up the interesting shadow are at different levels so that what the shadow will make is not completely obvious to someone only looking at the objects from the side:



The idea behind this first activity is to create a simple shadow project using at least 8 objects. If you've got a crazy/complicated/fun idea, save that for the next stage of today's work.

Summary of part 1:

1. Make a fairly simple shadow creation using 8 or more objects.
2. Each object is at a different elevation.
3. No more than half of the objects are text or letters.
4. What the shadow is should not be completely obvious if you are just viewing the objects.
5. The objects are raised up enough so that it is easy to view the shadow that they create without them getting in the way, but not so high that you cannot see them.
6. Rename your project with your name and "shadow 1" in the title.

Get a share link and turn this in for today's part 1. Add the link, but do not press "Turn in" yet, because you're going to add two more links.

Go to the next page to see part 2.

Part 2

In a new Tinkercad project make a more complex shadow creation. Use at least 30 objects to create an interesting/fascinating/fun shadow creation. It can be a recognizable object or symbol, a pretty design, a message, an animal, place, thing, person, pretty much anything that is school appropriate. No more than half of your objects can be letters or text objects. Set each object at a different height. Raise them all up enough so that the shadow they create is easy to see but not so high that you cannot see the objects and the shadow at the same time.

Summary of part 2:

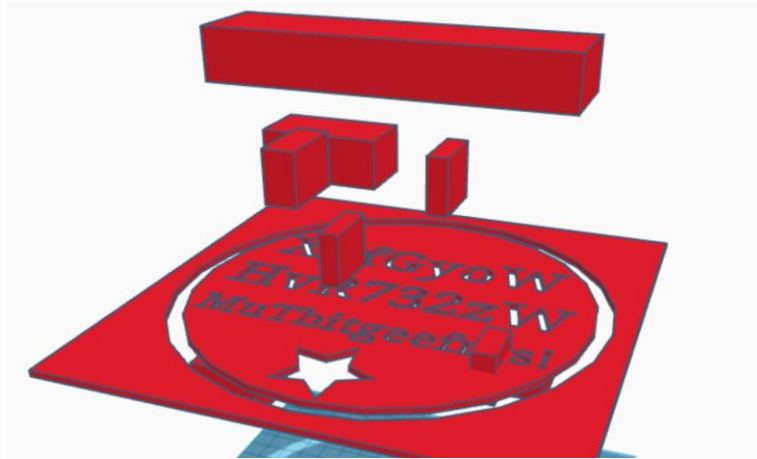
1. Make a more complex shadow creation using 30 or more objects.
2. Each object is at a different elevation.
3. No more than half of the objects are text or letters.
4. What the shadow is should not be completely obvious if you are just viewing the objects.
5. The objects are raised up enough so that it is easy to view the shadow that they create without them getting in the way, but not so high that you cannot see them.
6. Rename your project with your name and "shadow 2" in the title.

Get a share link and turn this in for today's part 2. Just add the part 2 link to the same Google Classroom assignment (we're turning in three links on the one assignment today.)

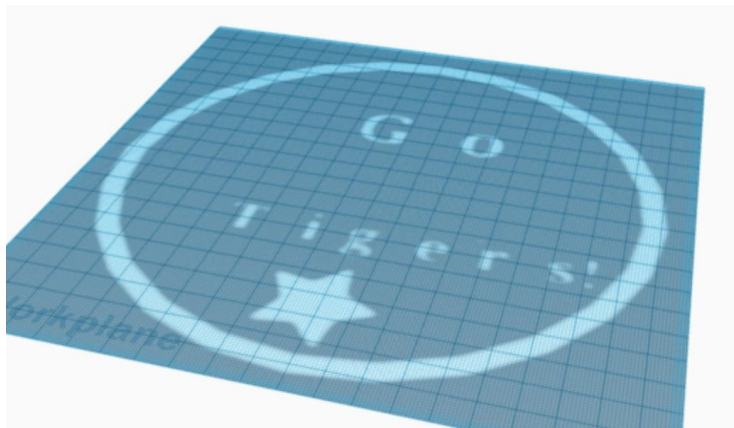
Go to the last page to see part 3.

Part 3

In a new Tinkercad project, make a third shadow design where the important parts are NOT the shadow. In other words, create an arrangement of objects such that the image you are creating is the part that is not the shadow. Here is an example:



Notice that from the above view you have no idea what is going on. If you look below, however, you can see the message "Go Tigers!" shows through as the parts that are NOT a shadow:



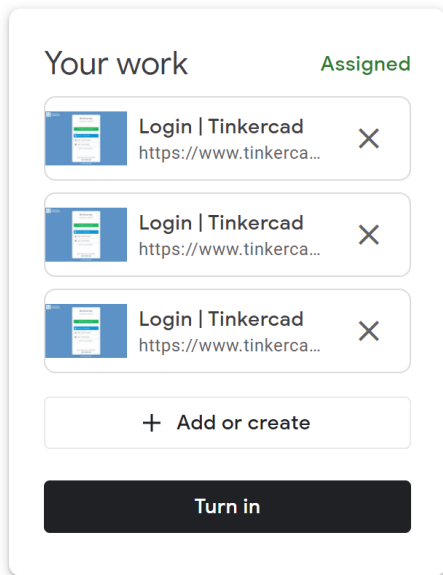
To do this one I started with a large rectangle that covered the entire workplane, then used hole objects to cut out parts that I wanted to show through. I put rectangle blocks in various places to block the "light" from going through letter holes that I didn't want showing down below.

You don't have to do a secret message like this; you just need to make the interesting part be the part that is NOT the shadow. It can be a message or a shape, design, etc. It just has to be recognizable and/or be fun and interesting, and the important part must be the part that is NOT a shadow.

One last note on the next page!

When done, rename this project with your name and "shadow 3" and turn in on the Google classroom.

Before you say "Turn in" for the whole assignment you should have three links showing like this:



That's one for part 1, one for part 2, and one for part 3.

Then mark the whole project as turned in. I look forward to seeing your creations.