

## Challenge 6: How Does It Work?

### Get Prepared

**Challenge Goal:** Practice sequential thinking and apply it to their own innovations

**Time Needed:** One 45-minute session

**Before You Begin:** Before the participants come in for the afternoon, set up the tablets so that their browsers are at [www.scholastic.com/sparks](http://www.scholastic.com/sparks).



#### What You Will Need:

##### Tablet Flip Book

- Innovation Flip Book



##### Materials

- Samsung tablets
- Engineer's Notebook (from Challenge 1)
- pencils

### How Does It Work?

1. Now that you have revised, or changed, your innovations to make them better, it's time for you to explain how they work. Have students tap the Innovation Flip Book on the tablets, then tap the numbers 4 and 5. Walk them through the steps of operating an elevator: *push the button; doors open; get in the elevator; push the button for your floor; doors close; elevator takes you to the floor; doors open; get out of the elevator.*
2. Explain that engineers don't only decide how the things they build will look, they also figure out how they will work. Have kids open their Engineer's Notebooks and flip to pages 7 and 8, "This Is How It Works." Point out the blank spaces where they will draw or write the steps of how their innovations work.
3. Ask: **What's the very first thing people will do when they use your innovation?** Have younger kids draw a picture of the first step using their innovation in the "Step 1" box. Have older kids write a description of the first step.



4. Move on to walk younger students through each step. Ask: **What is the next thing a person will do when they use your innovation?** Younger kids should identify at least a beginning, middle, and end. For those kids who can identify more stages, allow them to draw them in. After introducing the first step in using the innovation, allow older kids to work on their own while the leaders provide frequent check-ins and consistent verbal cues to consider each step carefully.

### Reflection Time

After participants have completed their steps, have a class discussion. Ask: **Do you think about your innovation differently now? Did you change your mind about how it works or how it might work? Is there anything you need to add to your drawing?**