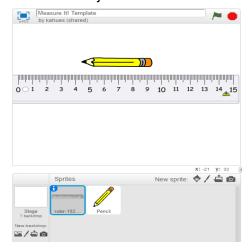
1. Log into your scratch account and then click on this template to get started: https://scratch.mit.edu/projects/138420072/ This template contains a transparent ruler sprite with the option to move the ruler when in play mode, so the player is able to click and drag the ruler to measure. This template also includes one sprite fully programmed so students have a jumping off point to program items of their choice. Click on remix to code more objects to measure.



2. Click to add a new sprite. Students can select any sprite that they would like to measure, but I remind them that we are measuring length in this particular project.



3. Click on the pencil and on the broadcast message block at the end of the code, type a new message. The name of this message should be the name of the object selected in step 2.

```
when clicked

x: -14
y: 87

ask How long is the pencil to the nearest inch? and wait

if answer = 5 then

say That's right! for 2 secs

else

say Not quite. The pencil is 5 inches long. for 2 secs

hide

broadcast Next Object

Next Object

new message...
```

```
when / clicked

x: -14
y: 87

ask | How long is the pencil to the nearest inch? | and | wait

if | answer | = 5 | then

say | That's right! | for | 2 | secs

else

say | Not quite. The pencil is 5 inches long. | for | 2 | secs

hide

broadcast | cat | v
```

4. Then click on the object you added. This is when I allow students to play with the grow and shrink buttons to make sure that their object is the size they want it to be to measure with the ruler. I remind students that the player of the game will be asked to measure to either the nearest inch or the nearest half inch. Also make sure that students DO NOT resize the ruler as this will change the answers.





5. Once the object is the size you want it to be, you are ready to start coding. Don't resize after you start coding or the answer will not be correct. Make sure that the sprite hides when the flag is clicked. The object will appear when it is broadcasted to from the previous object. The text in the code will vary depending on the object they selected.



- 6. Repeat for as many objects as you would like to add to your measurement game.
- 7. Click the green flag to play. Make sure that questions and answers in your game are correct. If there are any errors, go back and edit the code.
- 8. Click Share to make your project public.

This project is not shared -- so only you can see it. Click share to let everyone see it!

9. Then share the link with your teacher, or add to a teacher created Scratch Studio.