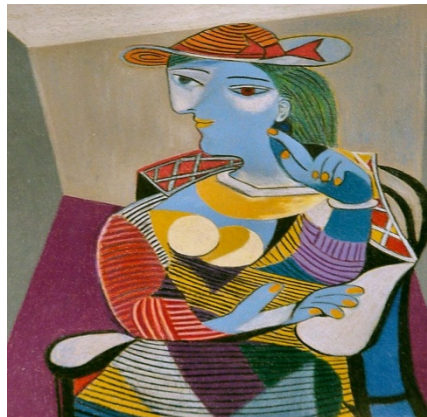


Coding for Good 1: Coding Basics

Complete the five steps to earn your Coding for Good 1 Badge.

1. **Use functions to create a self-portrait:** In computer programming, a series of steps is called an algorithm. The individual actions that make up these steps are called functions. This technology can be applied to art as creating a masterpiece requires following a series of steps for completion.

Take a look at this famous painting by Pablo Picasso. Write down the steps you think the artist took to create this image and then make note of which specific “functions” or materials made those steps possible!



2. **Write code to create a portrait:** Computer coding involves writing specific step-by-step instructions for the computer to follow. If the steps are not clear or are missing information then the computer will not be able to effectively perform the task.

When an artist creates a [tutorial](#) teaching others how to paint, draw, or sketch an image they have to be sure to provide clear step-by-step instructions. Now it's your turn to write a code to create a portrait. This portrait can be of you or someone you look up to. Be sure that your steps are clear, concise, and provide a list of materials needed.

3. **Learn about computer logic:** Check out this video [tutorial](#) to learn more about the “artistic” features of computer logic!
4. **Explore “If” statements:** “If” statements tell your computer how to act if a specific scenario happens. For example, if your computer encounters an incorrect formula, it will follow the instructions you have given it for how to act in this situation. An example would be if your computer creates a “VALUE!” declaration to let you know there is an error.

When creating a tutorial for how to paint, draw, or sketch a self-portrait you want to be sure you have “If” statements so that your fellow artists will know when and how to improvise if necessary. Check out the following [tutorial](#) and see if you notice any ways that the artist teaching uses “If” statements.

5. **Use computer logic to create a quiz show:** Using the principles you have learned in Steps 1-4, challenge yourself to create a digital quiz show. For helpful tips and inspiration visit the following behind the scenes [adventure](#).