

## BHM: Slideshow



So you've assigned a Black History Month project. Your students are researching a notable person or event from history. They are planning to present their research as an oral report.

This activity expands on the traditional oral report with the addition of coding! Students will make their own visual aid, in the form of a repeating slideshow background to accompany their presentation.

**Big Idea** Programming requires you to be precise and follow the rules of syntax.

**Audience** Beginner programmers, grades 5-9

**Time** 1 hour

**Standards** **CSTA 1B-AP-09** Create programs that use variables to store and modify data.

**CSTA 1B-AP-15** Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended.

**CSTA 1B-IC-21** Use public domain or creative commons media, and refrain from copying or using material created by others without permission.

## Lesson Plan

**Engage** Show the example project: <https://app.vidcode.io/share/ISonYB2ZzO>

(5 min) Challenge the class to create a similar slideshow for their own oral reports.

**Explore** Direct students to the BHM tutorial. They should go through the  
(15 min) instructions in pairs using the sample images. Not everyone will complete the tutorial, but each pair should have something to reflect on.

**Explain** Gather the students back together for a class discussion. Put the sample  
(10 min) project (or one of the student projects) on the board.

- What aspect of the project does each line of code control?
- How can you tell if there's an error in your code?
- What's an array? What's a property?
- What should you do if you're stuck?

**Extend** Invite students to complete the tutorial again with their own images.  
(20 min) Search for Creative Commons licensed images using the "Usage Rights" option in Google Images, or use photosforclass.com.

*Extra Challenges:*

- *Before coding, make a sketch of what the project will look like.*
- *Include one bonus element, like a box, border, filter, second text object, adjustment of rotation or opacity.*

**Evaluate** Share projects with a neighbor. Give constructive feedback.  
(10 min) Group reflection questions:

- How is this different from Keynote or Google Slides?
- What was difficult about this activity?
- How do you overcome struggle?

### Sample Solution

```
movie = stopmotion();
movie.frames = ["jemison_working.jpg", "jemison_earth.jpg",
               "jemison_floating.jpg"];
movie.interval = 800;
var title = text("Dr. Mae Jemison, Astronaut");
title.font = "Oswald";
title.x = 40;
title.y = 300;
title.color = "pink";
```