

# Unit 2 Chapter 1

## Lesson 6: Rapid Research – Format Showdown

# Objectives

Students will be able to:

- Identify reliable sources of information when doing research
- Synthesize information taken from multiple online sources
- Create an artifact (video, image, slide, poster, etc.) to communicate information about a computing topic.

# Purpose

- This lesson concludes Unit 2's investigation of file sizes, formats, metadata, and compression. The activity is designed for students to practice research skills that will be beneficial when completing the Explore PT while also applying the knowledge they have developed across the unit. The "showdown" aspect of the project is designed to both encourage students to think more deeply about the inherent tradeoffs of different file formats and also provide a motivating context in which to perform their research. The computational artifact completed in this project has a direct parallel to the computational artifact students are expected to design for the Explore PT.

# Getting Started

Imagine I was comparing two different file formats for representing images. All I tell you that one of them is "better" than the other. Based on everything that you've learned in this unit, what might "better" mean?

Try to come up with at least three ideas and incorporate vocabulary from the unit.

Some potential responses might include:

- Better compression ratio or better quality image even when compressed
- Can hold larger or more complex types of information
- Different kinds of metadata
- Includes features not found in other formats
- Used by more people
- Open, no licensing fees
- Newer and optimized for modern technology

# Rapid Research - Format Showdown Activity

Choose Format, Research, Begin One-Pager

- Review the one-pager template and rubric.
- Choosing Your Format
- Conduct Your Research
- Complete One-Pager
- Complete Computational Artifact
  - A list of other formats you'd specifically like to target in your computational artifact
  - Three key points you'd like to make in your artifact explaining the benefits of your format