

# Animating with Google Slides

*Lesson Plan for Grade 6*

*Prepared by Ms. Conti*

## DESCRIPTION

The Red ball challenge was inspired by the music video, “Knock, Knock”, by Brunettes Shoot Blondes. The video is composed of a dozen iPhones, iPads, iPods and MacBooks, that seamlessly create an animation that transfers from screen to screen in real time. Students will use their Chromebooks to create an animation using Google Slides. Students will be introduced to the concept of animation, while working together as a team to create the illusion of their animation passing from one Chromebook to another.

## GOAL

Students will complete a creative final animation with their team that utilizes a variety of file formats, and moves seamlessly from one Chromebook to another.

## OBJECTIVES ( Students will be able to... )

- Describe how to create a stop motion animation using Google Slides.
- Identify three types of animations ( Traditional animations, animated gif, tweening, and frame by frame animation )
- Create transparent images using an online photo editor using Pixlr.
- Communicate with a team to meet guidelines
- Use a variety of shortcuts ( cut, copy, paste, duplicate and open new tab )

## VOCABULARY

- Stop-Motion Animation - Animation composed of images, that when put together look like an moving object.
- Frame - one part of an animation. Animations are measured in fps ( frames per second ) 2D animations are usually measured in 12 frames per second.

- Tweening - Moving an object to show movement in each frame
- frame-by-frame animation - an image is redrawn in each frame to show movement. ( ex. Someone walking; their arms and legs move independently )
- Vector - a curve with nodes and control points, scalable
- Jpg - a type of file format that can be used for images.
- Animated gif - an animated file; usually consisting of a few images that are looped.
- Png - a type of file format that can be used to save transparent backgrounds.
- Duplicate - to make a copy of something, in this case slides.

## EDUCATION STANDARDS

### **RI Technology and Engineering Standards:**

ET2.2 (5-8) Use and maintain technological products and systems, as well as their tools.

ET2.3 (5-8) Utilize processes (i.e. research and development, invention and innovation, experimentation, and troubleshooting) in designs that use criteria and constraints leading to useful products and systems.

### **ITEEA Standards:**

8 - Students will develop and understanding for the overall design process.

10 - Students will develop and understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.

### **ISTE Standards:**

#### *Innovative Designer:*

4d - Students exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

#### *Creative Communicator:*

6b - Students create original works or responsibly repurpose or remix digital resources into new creations.

6d - Students publish or present content that customizes the message and medium for their intended audiences.

#### *Global Collaborator:*

7c - Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

## MATERIALS NEEDED

1. Chromebooks with WIFI
2. Google Account
3. Tables or desks pushed together for group work
4. Scrap paper
5. Pencils
6. Computer with projector

## SET INDUCTION

- Ask Students: What is an animation?
- Where have you seen animations before?
  - ◆ Commercials, movies ( Boxtrolls, Coraline )
- How are animations created?

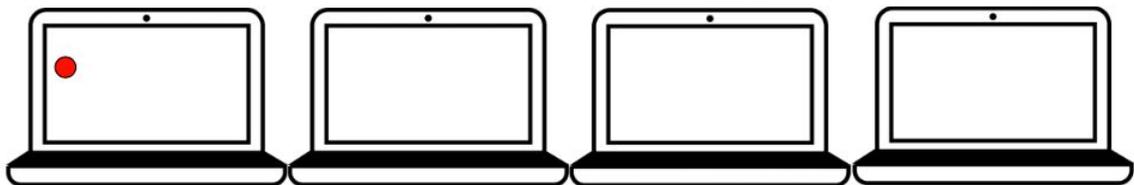
## LESSON BODY

- Types of animation: [Introduction to 2D animation](#)
  - Traditional Animation ( using frames to redraw )
  - 2D animation ( using vectors as parts to move individually )
    - Vector - a curve with nodes and control points, scalable
    - Tweening - moving parts frame by frame
- Discussion on stop-motion animation, and how animated gifs are similar.
- Demonstration: Students will sit at their seats with Chromebooks closed.
- Introduction to the Red Ball Challenge - Day 1: Students will be introduced to animation using Google Slides. The task for the day is to animate a red ball going from one side of the screen to the other ( using 25 Slides )
- Show an example of a red ball animation: [25 Frame Red Ball Animation](#)
- Demonstrate how to duplicate slide ( Ctrl D ) and use the tweeing process to animate the red ball with the transformation tool.
- Let students know this is the part one, so starting in the middle left and ending in the middle right of the screen will be important.
- Demonstrate the steps of exporting the animation for viewing:
  - ◆ File - Publish to Web...
  - ◆ Change slides to every second
  - ◆ Hit Publish ( first time only )
  - ◆ Copy the link ( Ctrl C )
  - ◆ Open a new Tab ( Ctrl T )

- ◆ Paste the link ( Ctrl V )
  - ◆ Delete last “0” in link
  - ◆ Play movie
- Students may open their Chromebooks, and use the starter file shared to Google Classroom. The starter file contains 2 slides; the first and last.
- Allow students to explore options of a path for the red ball; zig zag, loop, bouncing off the sides of the screen.
- Students will work on activity for the rest of class.

Day 2 Activity:

- Ask how students did with animations, and invite students to share their results.
- Show with Video ["Knock, Knock"](#) Music Video by Brunettes Shoot Blondes.
- Discuss: How is this possible? Ask for solutions, and come up with a plan for how to create our own version, using the red ball animations they have. *Note: All Chromebooks must be played at the same time.*



**Animation ( 25 )**

Blank Slides ( 25 )

Blank Slides ( 25 )

Blank Slides ( 25 )

**Animation ( 25 )**

Blank Slides ( 25 )

Blank Slides ( 25 )

**Animation ( 25 )**

Blank Slides ( 25 )

**Animation ( 25 )**

- Explain and go over how each slide presentation should look with the slides. The challenging part is to extend the animation even further by picking up each Chromebook to continue the red ball on each screen.
- Divide students in groups to complete the “Red Ball Challenge”.
- Circulate the room, assisting students with calculations and checking for group understanding and communication.
- Students will present their results with the rest of the class, seeing who had the most number of passes.

Day 3 Activity:

- Introduce image formats and show examples of jpg, png and animated gif.

- ◆ Use piskelapp.com to demonstrate how to create an animated gif.
- Demonstrate how to create and save a transparent background using an online image editor, like Pixlr.
- Show how to use google drawings; export ( file → download as --> Png )
- Explain the animation project guidelines;
  - ◆ Each member of the group must have at least 100 frames in their animation.
  - ◆ The storyline must be creative and make use of direction of their animation. ( must go up or down )
  - ◆ You should have at least one image you have created from either Pixlr, Piskel or Google Drawings.
  - ◆ Give students examples of finished animations : [Final Animations](#)
- Divide students into teams to begin planning their story. Students are encouraged to plan everything out on paper first, showing the direction and movement of their animation.
- As students finish planning, they can begin their animation in Google Slides.
- Class activity will continue for 5-7 class periods, for filming and audio editing purposes.

Extended lesson: Students may also upload their final animation video to Youtube, and create an QR code. They will then create a google drawing with the title of animation, first name of each member, an image of their character, and the QR code to promote it!

## CLOSURE

- Ask students to give examples of types of animations.
- Explain the benefits and limitations of a variety of file formats.

## ASSESSMENT

As a team students will reflect on the experiences of working with a group. Students will recognize that being able to animate can be applied to any discipline. Each student will explain how they could use animation to explain a concept, idea or how to make something.