Science / Unit 4

Lights, Camera, and the Science of Conflict

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UNIT INTRODUCTION

In this unit, students learn how to capture stories on film and visually communicate ideas by making specific camera choices.

Students will research a topic from the sciences to dramatically represent through a short filmed scene.

SUBJECT AREAS

> Media Arts

Science





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Unit Objectives

Students will be able to conceive, plan, and film a live-action scene incorporating researched facts on a given scientific topic.

Students will be able to use various camera angles and shots intentionally.

Standards

MEDIA ARTS

Anchor Standard #1 Generate and conceptualize artistic ideas and work.

Anchor Standard #4 Select, analyze, and interpret artistic work for presentation.

Anchor Standard #5 Develop and refine artistic techniques and work for

presentation.

SCIENCE

CCSS.ELA-LITERACY.RST.6-8.1, Cite specific textual evidence to support analysis of science and technical texts.

CCSS.ELA-LITERACY.RST.9-10.1, Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.

CCSS.ELA-LITERACY.RST.11-12.1, Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.



INTRODUCTION

Film and television are an art form that most people interact with every day. It has the power to capture attention from the masses with even one scene. It allows you to tell a story with moving image which allows writers and filmmakers to use movement and action in telling a story.

This lesson will ask students to come up with a story idea and focus on filming one scene with conflict in it. Through the process of filming that scene, students will learn about cinematography and editing to tell the narrative of a focused story.

ACTIVATION

Teacher asks class to share out some of their favorite movies or TV shows and what specifically they like about them. After discussion, ask students to think about what all of them have in common no matter the story. Push students to focus on what their favorite movies and TV shows all have in common.

DEMONSTRATION

Teacher introduces two film clips and prompts students to pay attention so the class can build a list afterwards of what all TV shows and movies have.

Use two distinct movie or TV trailers so students can focus on what they have in common.

Teacher builds class list on board of what all movies or TV shows have in common

- Characters, plot, setting, conflict, dialogue (usually)
- · Define each of these as students suggest them
- If students suggest other things like "humor" or "romance" you can bank them in a separate list of things we like in movies / TV shows. Let students continue to dig for the things they should need to have.

APPLICATION

Students get into groups and brainstorm a concept involving conflict. The scene should represent a conflict that is tied to what students are learning in class (conflicts among species, antigens vs. antibodies, etc.). Assign students readings or ask them to conduct research to learn more about their conflicts. Students should incorporate text evidence into their films to make them more specific.

- Characters: What are the "characters" or subjects in this conflict?
- Plot: What is the beginning, middle, end of this conflict?
- Setting: Where and when could you set your scene specifically to draw attention to the main point of conflict?

To check for understanding, ask each group to share out:

- Main Character(s)
- Plot/Conflict in story
- Setting



ACTIVATION

Ask students to share out some of their favorite scenes from movies or TV. Why do they like them? Use class discussion to push students to consider what specifically made those scenes great from movies or TV shows they like.

DEMONSTRATION

Teacher shows a film clip, prompting students to pay attention to what makes a great scene.

- · A location (setting), one or more characters, and conflict
- · Choose an example clip that includes all of these!

APPLICATION

Challenge students to turn their concept from the previous day into a 60 second scene representing a conflict. Have students list the setting, characters and conflict they will include. Finally, in six frames or less, have students storyboard their scene.

Have each group share finished storyboards with peers. Ask the peers to explain the scene. If the peers are confused or misinterprets the scene in any way, have the group make revisions to the storyboard to improve its clarity.

In the next classes, students will work to translate concepts into live-action scenes. Have students begin to brainstorm ways they will depict their stories on film. Will they use objects as stand-ins to represent the conflict? Will they act it out?



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DEMONSTRATION

Teacher introduces three types of camera angles and three shot sizes with students and reviews the main points of each with a bullet list. Video tutorials available on Filmmaking Resources page.

Camera angles

- Eye level: Camera points at level of subject's face. Maintains a level of objectivity. Think of an interview.
- Low angle: Camera looks up at the subject from a low angle. Can make a character seem dominant, scary, or powerful. Think of looking up at Godzilla.
- **High angle**: Camera points down on subject from a higher angle. Can make a character appear small or vulnerable, or show action happening from a bird's eye view.

Shot sizes

- Close-up: Highlights and focuses on character's face / expressions without distraction
- Long shot: Often used in action scenes to see how the character is moving through their environment
- POV: Used to let the viewer see what the character is seeing or feel what they're feeling

If time, can ask students for examples from movies / TV shows when each were used. Why were they effective? Ask students to think about nature documentaries like Planet Earth. How do they use camera angles to make their conflict appear more dramatic?

APPLICATION

Students get back into their groups and start to create a shot list for their 60 seconds of their story. Groups are tasked to incorporate 3 camera angles or shot sizes in their scene of conflict.

Teacher circulates the room and checks in on each group. Ask students to:

- · Explain why they chose each angle in their shot list.
- · Explain how each angle emphasizes the key moments.

Depending on level of students / time constraints, can increase or decrease shot requirements.



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APPLICATION

Review and summarize final project task to students:

Create a 60 second short film that clearly communicates a conflict. Students will need to carefully consider the following components:

- Setting: location should be a plausible environment for the conflict to take place. Props and other set decorations should be considered.
- Characters: each character should be a distinct person with their own way of acting and speaking. Wardrobe and styling should be considered.
- Conflict: the conflict should be the focus of the film and should be clear to the audience. Each characters' engagement in the conflict should be considered.
- Camera: at least three intentional camera angles or shots should be included in the final film.

Students use rest of class to create their short films using phone cameras or any available video cameras.

- · Give students time constraint to shoot their scene
- · Have students actively use scene shot list to structure their work time.
- Remind students that like a real life production schedule, they have to get their shots done to be able to stay on schedule for production company, budget, etc.

DEMONSTRATION

Teacher introduces film editing and its practices. Editing allows the filmmaker to focus a scene by highlighting important shots and cutting distracting ones. Editing also helps to set the pace and tone of a film.

APPLICATION

Students exchange film projects with a peer group to give and receive feedback based on film editing learning. Peer group should create a written list of editing ideas that will help focus and improve the film.

Groups receive peer feedback and incorporate final edits to scenes before final submissions. If necessary and time allows, students may reshoot parts of their scene.

INTEGRATION

Teacher prepares all short films / scenes to be viewed for an end-of-project screening of all group projects. Invite groups to "pitch" out their story to the class to introduce each 60 second short film.

As a final reflection ask students to write reflections:

- 1. How did their learning about graphic design at the beginning of the year support their final film project?
- 2. How does storyboarding and other planning for filmmaking help produce a cohesive final product?
- 3. What are the advantages and disadvantages to creating art using technological tools and/or processes?

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