

Big Idea, Overarching Goals & Characteristics

Essential Questions

Unit Questions

Evidence (specific things students are able to do)

Assessments (Artifacts that can be evaluated)

Activities (Domain Knowledge)

PRESENTATION PARTICIPATION PARTICIPATION CRITICAL THINKING PRESENTATION CRITICAL THINKING PARTICIPATION PARTICIPATION CRITICAL THINKING

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READING VIDEO ACTIVITIES COLLABORATION INFOGRAPHICS SCREENCASTS AUDIO LECTURES READING

The essence of photography is capturing light

Big Idea, Overarching Goals & Characteristics

Essential Questions

How do I select the right shutter speed?

How do I create a shallow depth of field

How can I control the quality of natural light?

Unit Questions

- What makes photos blurry?
- What shutter speed should I use if I don't have a tripod?
- How does ISO affect shutter speed?
- How are aperture and shutter speed related.
- Which shutter speed is faster: 1/60 or 1/500?

- When is a shallow depth of field appealing - and when does it look like a mistake?
- What are f-stops?
- How do zoom and macro modes affect shallow depths of field?

- What color is light?
- What color is a cast?
- What is golden light?
- Why does a flash look artificial?
- How can I avoid harsh shadows?

Evidence (Specific things students are able to do)

- Use camera settings to freeze motion (apply)
- Use camera settings to create motion blur (apply)
- Predict the results of changes in shutter speed (interpret)
- Explain the relationship between shutter speed, aperture, and ISO (explain)

- Analyze the visual impact of shallow depth of field on different subjects (interpret)
- Explain relationship between aperture and shallow depth of field (explain)
- Use camera settings to control depth of field.

- Analyze the visual impact of various lighting conditions (interpret)
- Analyze an image and conclude what type of light sources were used to create the image (interpret and explain)
- Use varying light conditions to create different moods
- Argue the merits of different lighting conditions on a given subject (perspective)

Assessments (Artifacts that can be evaluated)

• Photo: capture motion blur in passing traffic

• Photo: freeze the action at a sports event

• Journal: document results of your experiences at the sports event. What did you learn? What camera settings would you use next time?

• Photo: object in focus, background blurred

• Journal: what did you learn at the botanical garden?

• Discussion board: compare photos with varying depth of field and analyze their visual appeal

• Evaluate and critique examples of warm images, cool images, and images shot with a flash

• Analyze an image to determine what type of light was used. Explain your conclusions

• Photo: 2 photos of the same object at the same location, but taken at two different times of day. Argue the mood created in each image

Activities (Domain Knowledge)

- Read text
- Practice with online shutter speed simulator
- Attend a sporting event; set up near the goal and shoot photos
- Systematically change the shutter speed
- Systematically change the ISO
- Examine the exif data from your sporting event photos
- Note how aperture changes when shutter speed changes
- Determine which shutter speeds produce the best results

- Read text
- Research online photography journals for tips
- Take your tripod to the botanical garden. Systematically change the aperture on the successive shots and note the results
- Systematically apply zoom and note the depth of field
- Try the macro mode on your camera and note the effect on depth of field

- Read text
- Search online photo galleries for examples; post links in Bb for classmates to review
- Experiment with white balance settings
- Experiment with flash settings
- Experiment with homemade reflectors and diffusers
- Choose a location and note how the light changes at different times of the day

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