

Enhancement Activities/Strategies for Gifted/High Ability Learners: Sample Science Learning Plan

Big Idea/ Topic

- Weather, moon phases, collecting data

Standard Alignment

S4E4. Obtain, evaluate, and communicate information to predict weather events and infer weather patterns using weather charts/maps and collected weather data.

- Construct an explanation of how weather instruments (thermometer, rain gauge, barometer, wind vane, and anemometer) are used in gathering weather data and making forecasts.
- Ask questions and use observations of cloud types (cirrus, stratus, and cumulus) and data of weather conditions to predict weather events.

S4E2. Obtain, evaluate, and communicate information to model the effects of the position and motion of the Earth and the moon in relation to the sun as observed from the Earth.

- Develop a model based on observations to describe the repeating pattern of the phases of the moon (new, crescent, quarter, gibbous, and full).

Advanced Research

Select a location and research the weather and climate of the location. Use an almanac to gather data and create a graph. If available, allow students to create a green screen weather report for the chosen location.

Communication

Have the students create games about the moon phases that require children to apply their understanding of **moon phases**. After the games are created, allow time for the students to play each other's game. Be sure that they communicate their directions clearly.

Critical Thinking and Critical Problem-Solving Skills

Locate free online challenges for coding. Many challenges include a teacher's guide and step-by-step tutorial. Have the students take the coding challenge. Students must apply critical thinking and perseverance to accomplish a coding mission.

Creative Thinking and Creative Problem-Solving Skills


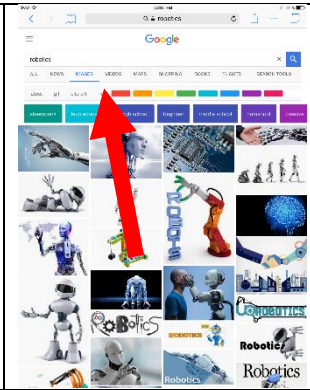
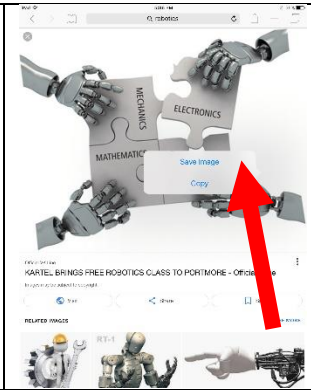
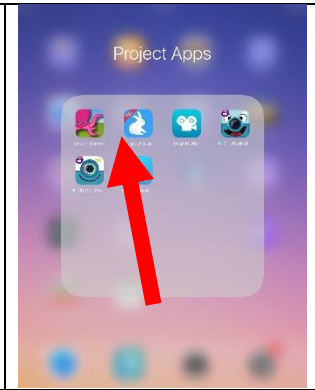
Why do meteorologists get a bad reputation? Learn about the various tools and instruments meteorologists use and write a response to the public defending meteorologists. You can respond on behalf of a specific meteorologist, or generically on behalf of the profession.

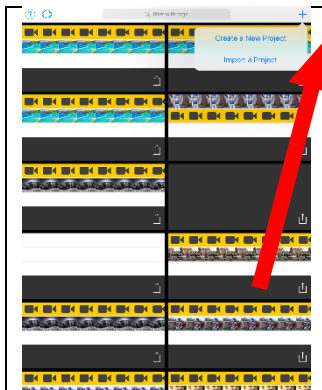
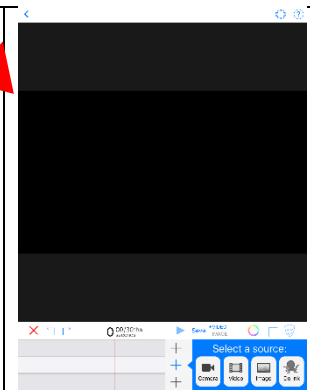
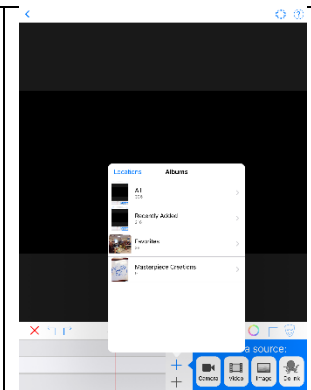
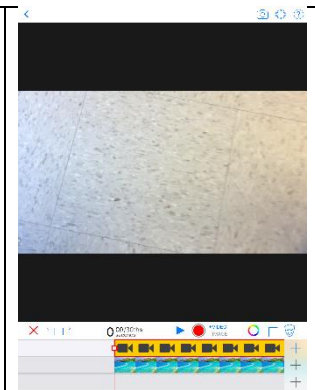
Awareness of Self—Student's Well-being

Severe storms in Georgia happen multiple times each year. Challenge students to create a storm survival guide. It could be in the format of a video (stop motion, green screen, animation, etc.), a brochure, a manual, or something different. Encourage students to think research challenges related to storms in Georgia. Provide an opportunity for students to share their project with peers or others who may benefit from the project.


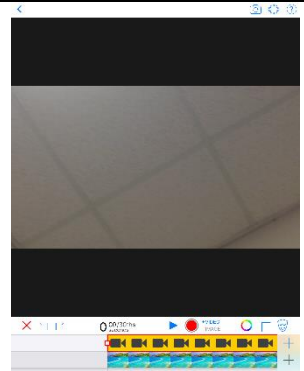
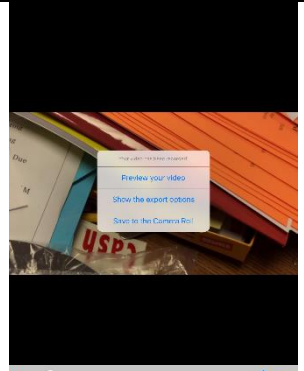
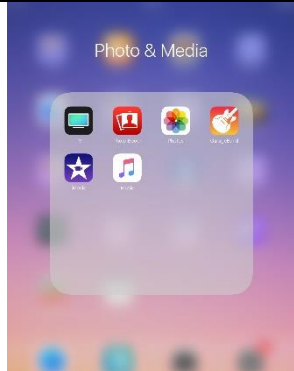
Green Screen Project Directions

- Only 2-3 people can be at the Green Screen space at one time.
- You must have your script written BEFORE you get the iPad or other device.
- If others are waiting, you can only do up to 3 takes. Then let someone else have a turn.

			
<p>Write your script. Be sure to practice reading your weather report.</p> <p>If you have access to an extra device, you can use a teleprompter app to scroll the text.</p>	<p>Find a background picture to use.</p>	<p>Hold one finger on the large picture and wait for the "Save Image" prompt to show up. If it doesn't work after 5-10 seconds, try again.</p>	<p>Find and open a Green Screen App or another appropriate app.</p>

			
<p>Select the plus sign to create a new project.</p>	<p>In the MIDDLE row, click the + to add the image.</p>	<p>Select Recently Added and find the picture you saved.</p>	<p>Now click the + sign in the top row and select camera. At the top of the iPad or other device, change the</p>

			camera to standard (not Selfie mode).
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<p>Put the iPad or devise on the tripod and line it up so you don't see the wall on the screen. Tape your script to the tripod so you can see it when you record.</p>	<p>Press the red Record button. Let it count down from 5.</p>	<p>When you are finished recording, tap the main screen and the recording will stop. Select Save the Camera Roll.</p>	<p>You can find your video in Photos.</p>