Wednesday, July 1
11:30pm

SciGirls, "Skygirls"
4th – 8th grades.

This series showcases bright, curious real girls putting science and engineering to work as they answer questions and make unexpected discoveries in the world around them. In this episode Virginia SciGirls Emma, Lauren and Madison have the ultimate "stratus update!" Teaming up with NASA scientists, they identify clouds from the ground and compare their data with satellite images, ultimately creating a "mostly cloudy" museum display.

After watching this episode, choose from the following questions and/or tasks to extend your learning

Question Box 1

- What clues can you point to in the program to explain the author's purpose? What is the intent or purpose of the writer?
- What is your analysis of the program? What evidence did you identify to support your analysis of the TV show?
- What is the central idea? How is the central idea developed?
- Cite evidence from the TV Show to support your determination of the central idea.
- Provide an objective summary of the program.
- What interaction influenced future events? Provide evidence.
- What are the SciGirls Skygirls wanting to learn more about and why?
- Where do they go to find out more information?
- What does NASA stand for?

Mentor Moment:

- Tell about the NASA research scientist the girls meet.
- What do the girls learn about clouds? the atmosphere? and satellites? The girls' mentor talks to them about clouds, the atmosphere, and satellites.
- Describe the citizen science project.

Collect Data:

- Name the 6-observation data points the girls plan to collect.
- What website do the girls load their data into?
- How long do they have to wait to get feedback on their data?

Brainstorm:

- What are all the ways the girls brainstorm to share their information at the local museum?
- What way do they decide on?

Analysis:

- The girls receive their data back from NASA. what do they discover?

Continued on the next page…

- What do the girls learn about the importance of data?

Question Box 2

- What were some of the most interesting parts to this program? Explain.
- What were some of my most powerful learning moments and what made them so? Explain.
- What surprised you in the program, and why?
- What's the most important thing you learned from the TV show? Why do you think so?
- What do you want to learn more about this topic, and why?
- Cloud Watching- go outside, lay on your back and gaze up to the sky. Notice the clouds in the sky. What shapes do you see? Think about where the clouds are going and what they will see.

Box 3 (Tasks)

- Looking up at a square patch of sky that has a perimeter of 2 miles, what would be the length of each of the sides? What would be the area of the patch of sky?
- Suppose that 3 identical clouds in the patch of sky were circles with a diameter of 0.25 miles. How might you arrange them to fit in the square patch of sky? Do you think that patch of sky would look the same from space as it would on earth? Explain your reasoning.
- Explain what part of the water cycle clouds represent.
- Discuss how the NASA scientists helped the SciGirls.
- Visit SkyGirls, click on the download "Cloud Clues" under related links and complete.
- Visit the interactive site: Cloud Types
- Make a chart of the different types of clouds. Label them by name.
- Include an illustration of each, altitude and 1 interesting fact of each type of cloud.

Box 4 (Enrichment)

- Draw a model to demonstrate how clouds form in the sky.
- Describe how the SciGirls used science in learning about clouds.
- Pick an activity from the links below:

Make a Cloud Form in a Jar
How to Make a Water Cycle in a Bag | STEAM Activity for Kids
More weather experiments…..become an expert!

Box 5 (Extend/Real-Life)

- Draw a model of different types of clouds and label with description.
- Research and describe how changing global weather patterns have affected cloud formation.
- Become a meteorologist
- Research: weather information for kids
- Play: Evidence of Weather
- Practice: Weather Forecasting


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