

# Global Precipitation Measurement Mission

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

## “Water Falls” – Post-Visit Lesson – Capture sheet

1. Activator: Reflect on the “Water Falls” movie we saw on the Science on a Sphere.

**What are some observations you made while watching the movie?** *(What were the main topics covered in the movie?)*

**How is fresh water helpful to life on Earth?**

**How is fresh water harmful to life on Earth?**

2. Name two of the natural disasters that were mentioned in the Water Falls movie.

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### Measuring Rain

3. According to the animation, how much space would all the rain gauges on Earth take up? \_\_\_\_\_

4. Were there many rain gauges in the ocean? \_\_\_\_\_

5. What tool do scientists use to gather great amounts of data about global precipitation? \_\_\_\_\_

### Hurricanes:

6. What is one of the characteristics of the ocean that can cause a hurricane to grow or weaken? \_\_\_\_\_

7. What is the temperature of sea surface water needed for a hurricane to form and grow? \_\_\_\_\_ °C (82°F)

8. What do warmer sea surface temperatures do to a hurricane? \_\_\_\_\_

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9. In which of the two data images will the ocean temperatures most likely help a hurricane to intensify in the Atlantic, near the Gulf of Mexico and East Coast of the US? Why? \_\_\_\_\_

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10. What are some dangers from the heavy rainfall brought by a hurricane?

*Now that you've seen some of the dangers and costs of hurricanes, let's look at just how satellites can see into storms and help us predict their effects. Look at the TRMM images of the two storms – Soulik and Dorian.*

11. Which of the two storms do you think most likely poses the greatest danger to life on land? \_\_\_\_\_  
Why? \_\_\_\_\_

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12. How can the more sensitive instruments, greater global coverage, and international partner satellites help people in the future when it comes to deciding what actions citizens should take as a tropical storm is approaching?

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## **Extension: Hot Towers**

1. In the image with the two graphs about Hurricane Henriette's storm heights, what do you notice about the 'hot towers'? \_\_\_\_\_

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2. After looking at the images of the two hurricanes, which do you think was the most intense and why? \_\_\_\_\_

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3. How can the TRMM and GPM satellite's ability to look inside a hurricane help scientists to better predict hurricanes in the future? \_\_\_\_\_

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