

Name \_\_\_\_\_

## The Nature of Science and Technology

1. Samuel and Gertrude wanted to know if salt water affected plant growth. They each performed an experiment. Their results are shown in the tables below.

Samuel			
Plant	Water Type	Amount Watered	Growth
Tomato #1	tap water	100 ml	4 cm
Tomato #2	salt water	100 ml	4 cm

Gertrude			
Plant	Water Type	Amount Watered	Growth
Marigold #1	tap water	100 ml	2 cm
Marigold #2	salt water	100 ml	0 cm

Samuel found that salt water had no effect on plant growth, but Gertrude found that salt water did affect plant growth. What is one possible reason for their different results?

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2. Maria and Enrique wanted to find out the average number of children that families have. Maria interviewed 20 families and Enrique interviewed 80 families. They asked the same questions during their interviews. Whose results would be more accurate and why?

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3. What is the name of a tool that you would use to get a closer look at objects that are very small?

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4. Give one example of how a person uses science while making cookies.

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5. Give one reason why people use the Internet.

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6. Give one way that people misuse the Internet.

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7. Landfills are created so that there is a place to put our trash.  
What is one problem caused by landfills?

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8. List two things in the following picture that are not present in nature  
but have become available because of science or technology.

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**TEACHER SCORING GUIDE**

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Item Number	Answer	Standards Indicator
1	Samuel and Gertrude used different plants <i>or</i> different strength salt water.*	5.1.1
2	Enrique, because he had a larger sample size.*	5.1.2
3	microscope <i>or</i> magnifying glass	5.1.4
4	measuring ingredients <i>or</i> mixing*	5.1.3
5	searching for information <i>or</i> shopping*	5.1.5
6	inappropriate sites*	5.1.5
7	Land is wasted <i>or</i> groundwater pollution.*	5.1.6
8	swing set; bike*	5.1.7

\* Give credit for all valid answers.