

Name _____ Date: _____

2025-2026 Incoming 6th Grade Science Summer Packet

Part I - Scientific Method (Big Idea 123)

For the following experiments, define the independent variable, dependent variable, and control group.

Vocabulary Word	Definition	Example
Test Variable	<ul style="list-style-type: none">• The variable being changed. Only one variable can be changed per experiment.	Height of dropping the ball
Outcome Variable	<ul style="list-style-type: none">• The variable being measured.• Must be numerical (such as height, mass, distance, volume, etc...)	Size of the Crater
Control	<ul style="list-style-type: none">• Not all projects will have a control.	None
Constants	<ul style="list-style-type: none">• The factors that stay the same.	The ball, the person dropping the ball, weather conditions, surface

1. Different rose bushes are grown in a greenhouse for two months. The number of flowers on each bush is counted at the end of the experiment.

Independent Variable:

Dependent Variable:

Control Group:

2. You water three sunflower plants with salt water. Each plant receives a different concentration of salt solutions. A fourth plant receives pure water. After a two week period, the height is measured.

Independent Variable:

Dependent Variable:

Control Group:

3. Three redwood trees are kept at different humidity levels inside a greenhouse for 12 weeks. One tree is left outside in normal conditions. The heights of the trees are measured once a week.

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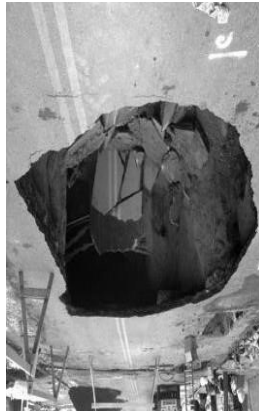
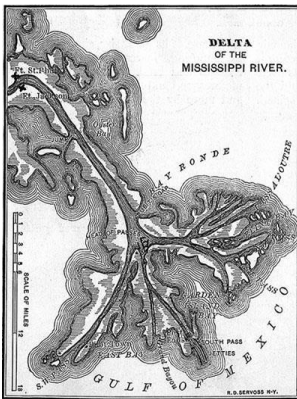
Independent Variable: Dependent Variable:

Control Group:

PART II - LANDFORMS (Big Idea 6)

Observe the pictures below. Label each landform and then describe how it is formed using the words below to assist you. You may need more than one word for some of the descriptions.

- **Landform Words:** Glacier, Mountain, Dune, Lake, Delta, Volcano, Sinkhole, Lake, Alluvial Fan, Coastline
- **Causes Words:** Erosion, Deposition, Weathering, Silt, Plate Tectonics, Gravity, Uplift



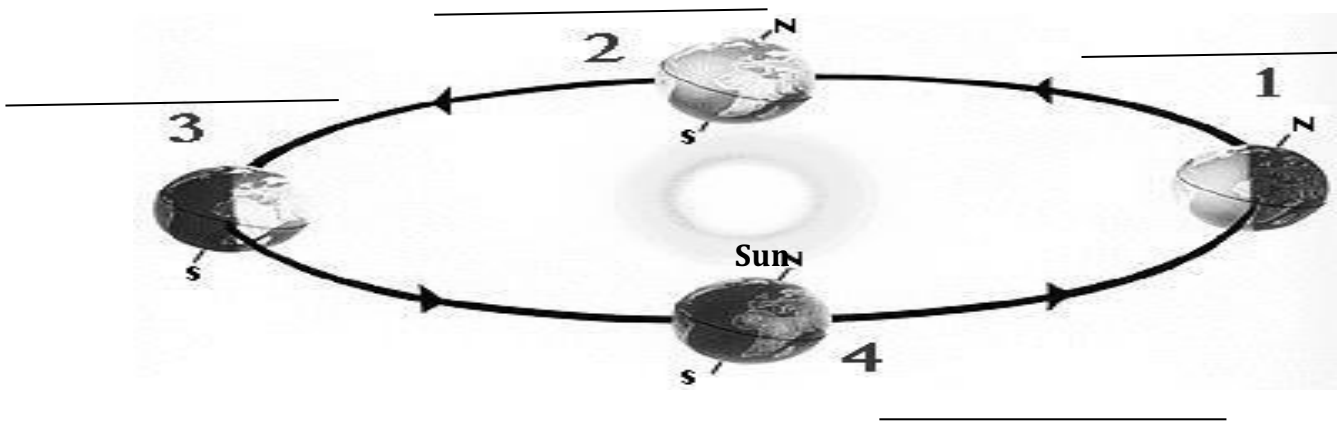
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Part III- SEASONS (Big Idea 5)

Analyze the diagram below and label each position with the correct season occurring in the USA.

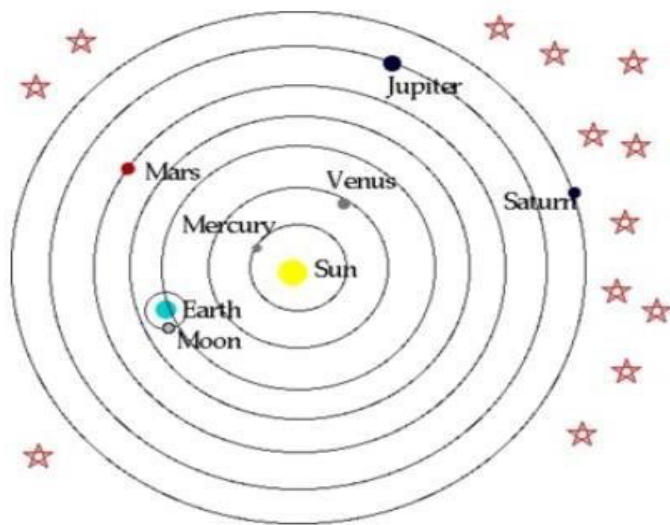
- **Season Words:** Winter, Spring, Summer, Fall



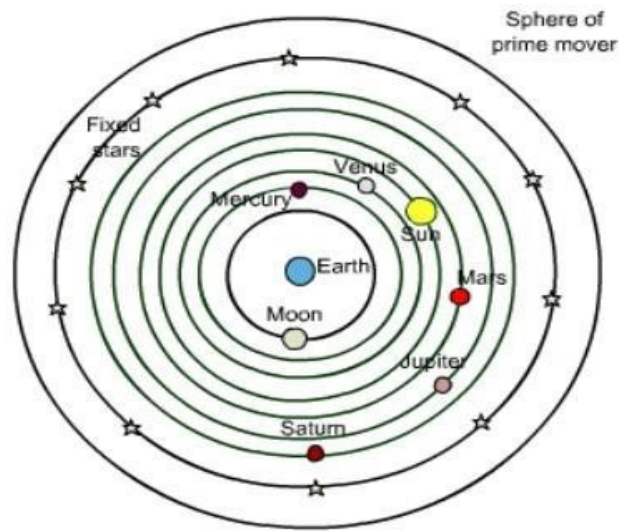
PART IV: SOLAR SYSTEM MODELS (Big Idea 7)

The two diagrams below represent the Heliocentric and Geocentric Model of our Solar System. Use the diagram to complete the organizer below:

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Heliocentric Model



Geocentric Model

Model	Sun at Center (example)	Earth at Center	Moon Orbits Earth	Includes Mercury, Venus, Earth, Mars and Jupiter	Includes Mercury, Venus, Earth, Mars, Saturn, Jupiter, Uranus and Neptune
Ptolemy's Geocentric Model					
Copernicus' Heliocentric Model	X				