

Third Grade Science Academic Packet



Week 1
March 30-April 3, 2020

Third Grade Recommended Pacing

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Monday	Big Idea 1: The Practice of Science Big Idea 3: The Roles of Theories, Laws, Hypotheses, Models Study Island: Topic 1. Pretest Topic 2a. Scientific Investigations	3
Tuesday	Big Idea 1: The Practice of Science Big Idea 3: The Roles of Theories, Laws, Hypotheses, Models Study Island: Topic 2b. Collecting, Recording, & Communicating Data Topic 2c. Organizing and Interpreting Data	4
Wednesday	Big Idea 8: Properties of Matter Study Island: Topic 4a. Properties of Matter	5
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Big Ideas 1 & 3 Study Guide: Nature of Science

_____ is the study of the natural world.

Scientists ask _____ about the natural world and conduct _____ to answer their questions.

It is important to note that scientific investigations do not always follow the same steps. Investigations follow steps necessary to find an answer to the question being investigated. The table below shows some steps that are often used in an experiment.

Step	Description
Problem/Purpose	The question being investigated is identified.
Research	Look for information about your topic using trustworthy sources.
Prediction (Hypothesis)	A prediction, based on research, is made about what you think the evidence is going to show. All predictions should include the words If... then.. because....
Experiment	Write a procedure and carry out the steps. Make sure to record data.
Analyze Results	Examine the data and look for patterns.
Conclusion	Compare the results with your prediction. Was your prediction supported by the evidence? Or did the evidence disprove your prediction?

All types of scientific investigations include making _____ and collecting _____.

Scientists _____ the world around them by using their five senses. An observation is something you _____, _____, _____, _____, or _____. Observations cause scientists to ask questions. Sometimes scientists use measurement tools to make observations.

_____ is the observations or measurements that are used to help justify a scientist's explanation of what happened in an investigation. A scientific investigation is only valid if it is based on observations and evidence.

Scientists compare the observations made by different groups using the same tools. When scientists follow the same steps and use the same tools, what they _____ should be similar. If the observations are different, then the scientists should try to find reasons for the differences.

An _____ is a statement that explains an observation. Scientists infer how things work by thinking about their _____.

Make an observation and an inference based on the observation for each of the photos in the table.

Photo	Observation	Inference
		
		
		

During investigations, scientists keep records through pictures, writing, charts, or graphs.

Scientists explain what happened in their investigation using the information in the pictures, notes, charts, or graphs as evidence.

It is important for scientists to communicate with other scientists so that they can question, discuss, and check each others' evidence and explanations.

Big Idea 8 Study Guide: Properties of Matter

Matter is anything that has _____ and _____.

The three _____ of matter include _____, _____, and _____.

Solids have a definite _____ and _____.

Liquids have a definite _____, but no definite _____.

Gases don't have a definite _____ or _____.

Matter can be described by its _____.

_____ is the amount of matter in an object.

Mass is measured with what science tool? _____

_____ is the amount of space an object or material takes up.

What are three ways to measure volume?

1. _____
2. _____
3. _____

_____ is measured in _____ or degrees _____.

It is measured using a _____.

- When the temperature is increasing, it is getting _____.
- When the temperature is decreasing, it is getting _____.

Do a quick draw comparing two objects with the same mass and same volume. Include a balance in your drawing.

Do a quick draw comparing two objects with the same volume, but different mass. Include a balance in your drawing.

Do a quick draw comparing two objects with the same mass, but different volume. Include a balance in your drawing.

Quickly describe each of the following properties of matter:

- Size - _____
- Shape - _____
- Color - _____
- Texture - _____
- Hardness - _____

Describe the size, shape, color, texture, and hardness of the object below.



Big Idea 9 Study Guide: Changes in Matter

Water changes state through _____ and _____.

Water can be either a _____ (ice), _____, or a _____ (water vapor).

Changes Water Undergoes	
Heat is Added	Heat is Taken Away
_____ Water going from a solid to a liquid	_____ Water going from a liquid to a solid:
_____ Water going from a liquid to a gas	_____ Water going from a gas to a liquid

Fill in the diagram below with the correct scientific terms.

