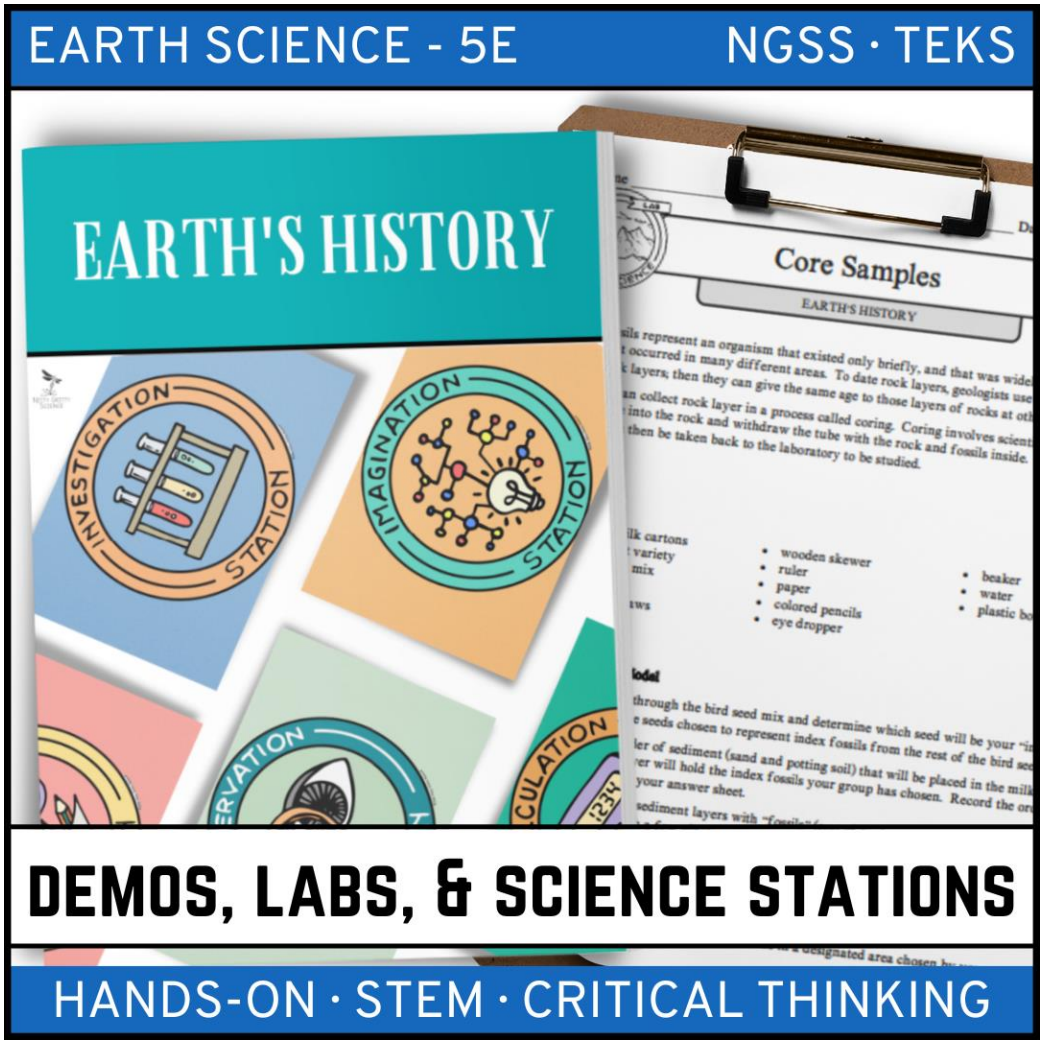
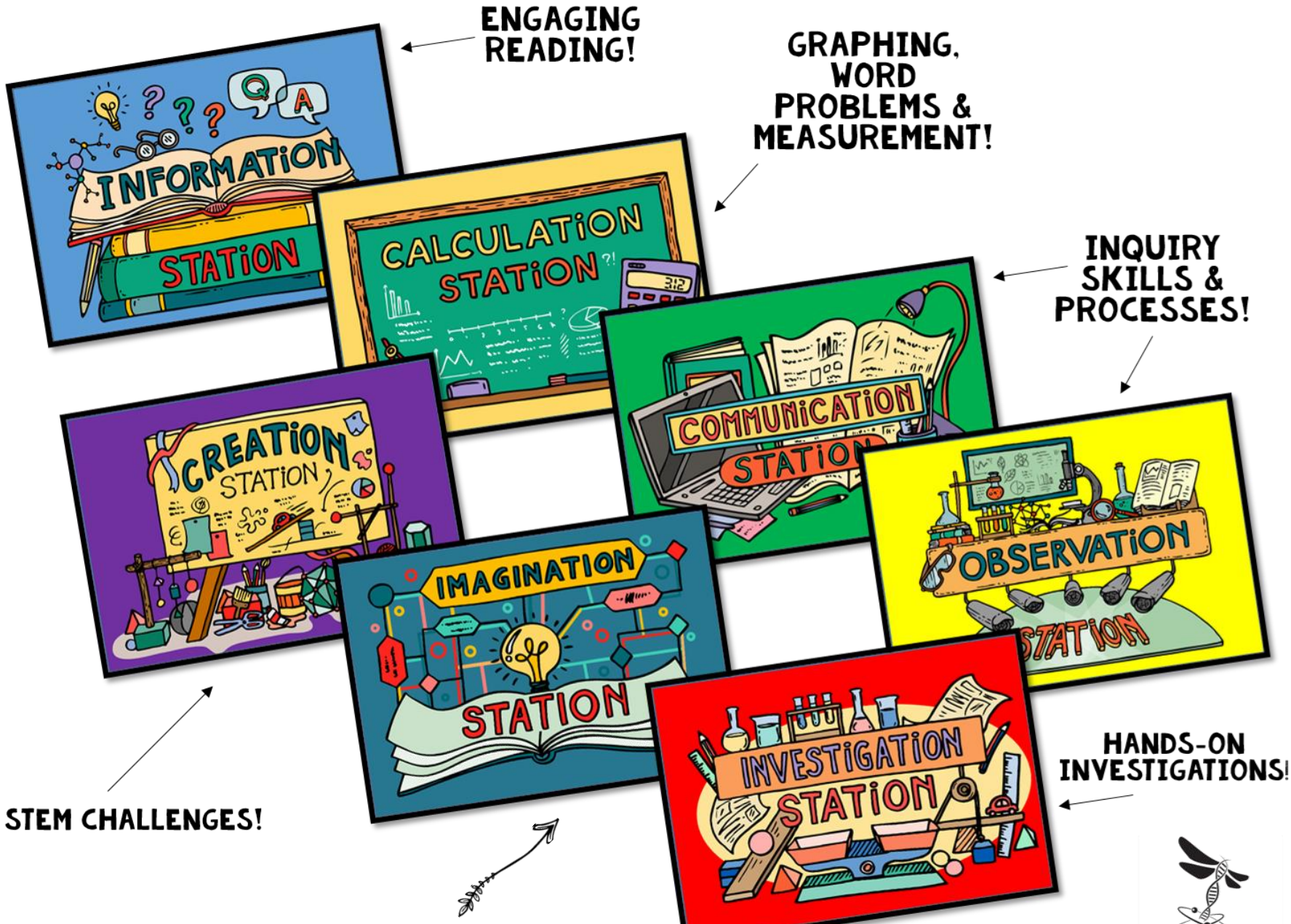
Demos, Labs, & Science Stations Feature:

- Hands-on Investigations
- STEM Challenge
- Scientific Literacy
- Inquiry Process Skills

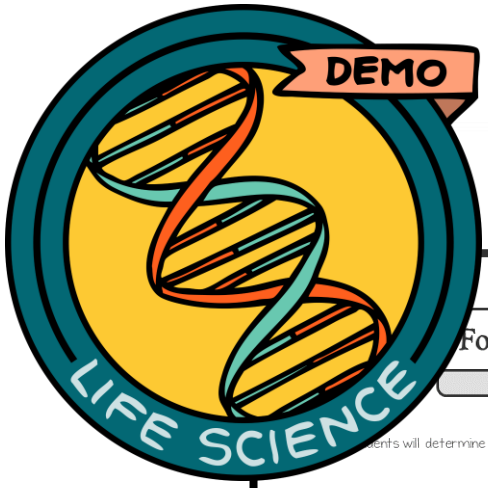




ALL Station Signage Included!!

Color & Black and White

Nitty Gritty Science



Fossil Identification

EARTH'S HISTORY

...ents will determine what is a fossil and try to understand how it formed.

Materials:

- actual fossils or photos (check with your local resource center or borrow from home or from those who may have samples to share)
- non-fossil items (may or may not include igneous rock, metamorphic rock, sedimentary rock, pressed flower, coin, shell, paper towel piece, bone, wood, metal washer, etc.
- index cards labeled with letters that equal the number of fossil and non-fossil items
- magnifying glass (optional)

Procedure:

1. Spread items around the room and label each with a lettered index card.
2. Have students examine the items on the table. Use a magnifying glass if provided.
3. Students should determine if each object is a fossil or non-fossil. Have them place the letter of the index card either under the column labeled fossil or non-fossil. Have them identify the item if they can.
4. Students should rotate and continue identifying each item until all have been placed in either category.
5. When students are done, go over the answers with them and start a discussion on how they came to the conclusion that some items were fossils and others were not. You may also want to use this opportunity to introduce different types of fossils.

Discussion questions and teacher set-up included!

Teacher guide and answer key offered for every lab!

Easy-to-get materials!

Name _____ Date _____

Core Sampling

EARTH'S HISTORY

Index fossils represent an organism that existed only briefly and that was widely distributed, meaning it occurred in many different areas. To date rock layers, geologists use index fossils to match rock layers, then, they can give the same age to those layers of rocks at other locations.

Scientists can collect rock layers in a process called coring. Coring involves scientists driving a hollow tube into the rock and withdrawing the tube with the rock and fossils inside. The core samples can then be taken back to the laboratory to be studied.

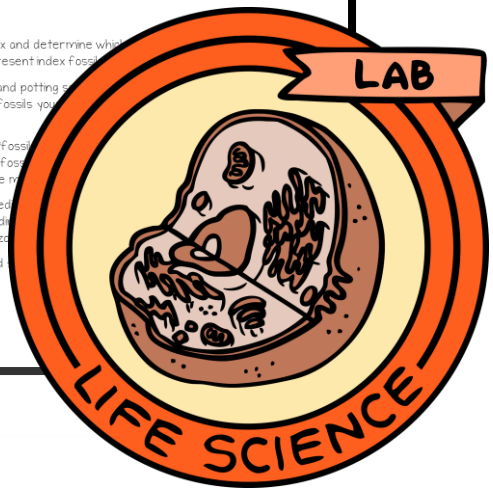
Materials:

- small milk cartons
- sediment variety
- bird seed mix "fossils"
- plastic straws
- wooden skewer
- ruler
- paper
- colored pencils
- eye dropper
- beaker
- water
- plastic bowl

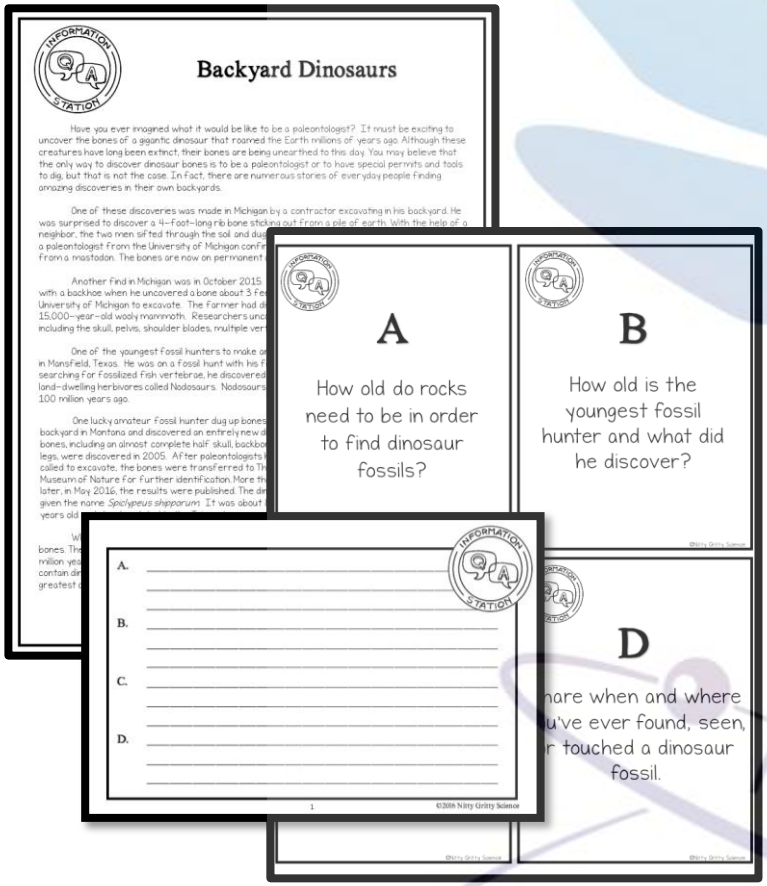
Procedure:

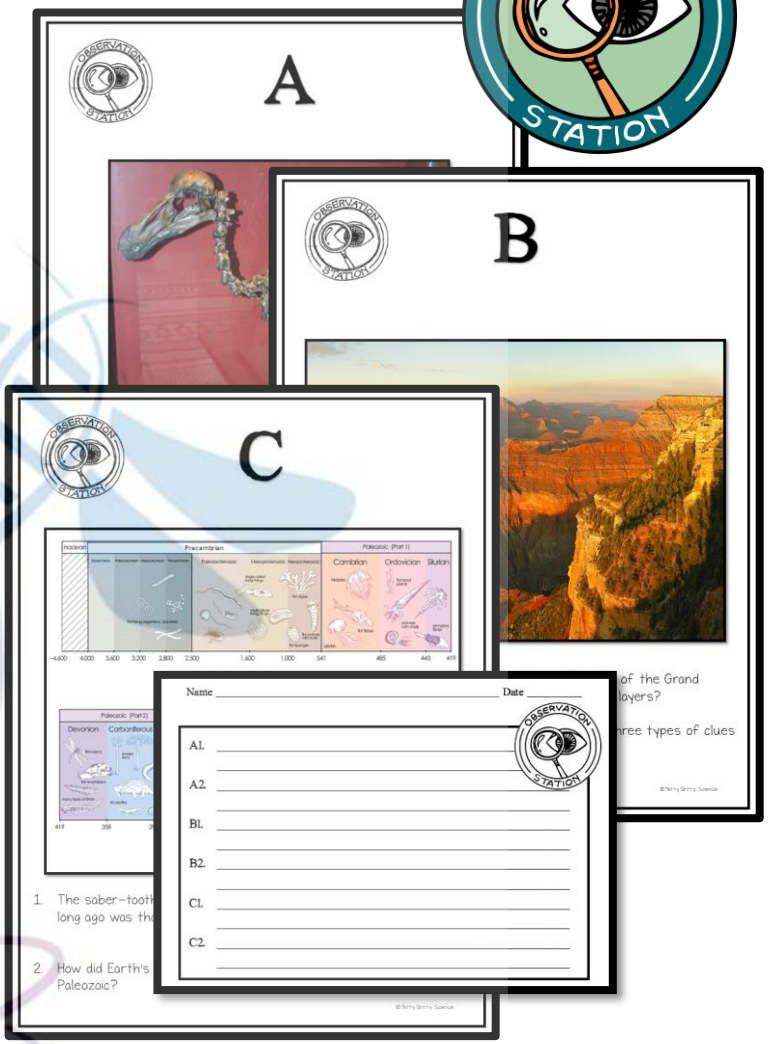
Part A: Create a Model

1. As a group, look through the bird seed mix and determine whi... Then, separate the seeds chosen to represent index fossi...
2. Determine the order of sediment (sand and potting s... along with which layer will hold the index fossils you... index fossil layer on your answer sheet.
3. Build the model of sediment layers with "fossi... layer of sediment with a few pinches of fos... Place damp mixture at the bottom of the m...
4. Continue building your model with other sed... like. Lightly pack the sediments after addi... the correct layer and keep all layers horiz...
5. Label the model with the group name and ... teacher.



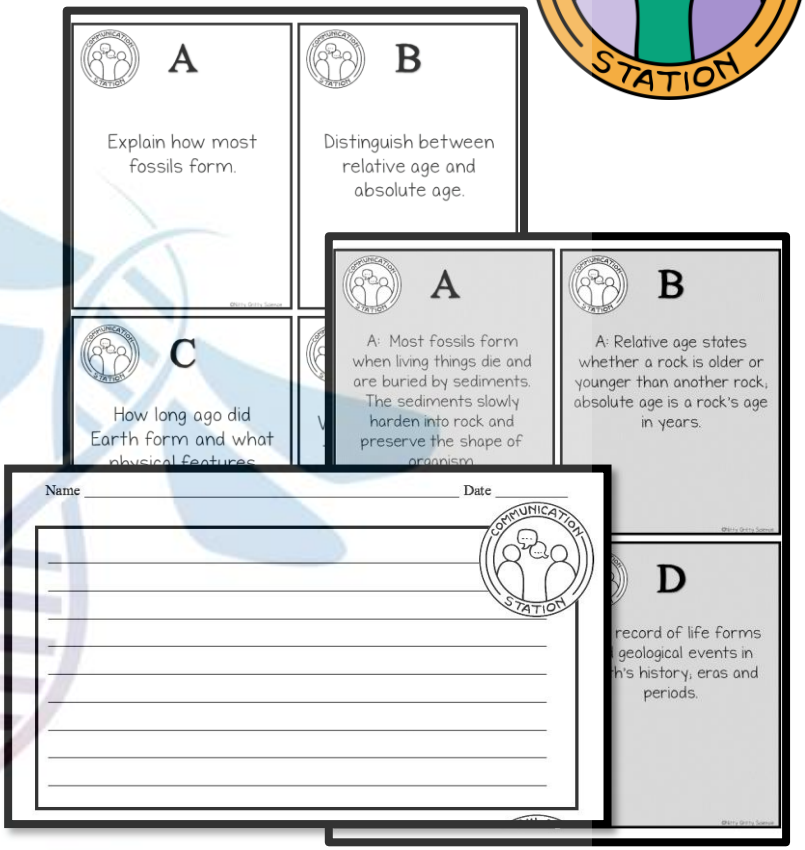
Group members will read a passage and then complete a task to help increase science literacy and deepen their understanding of the science concept.





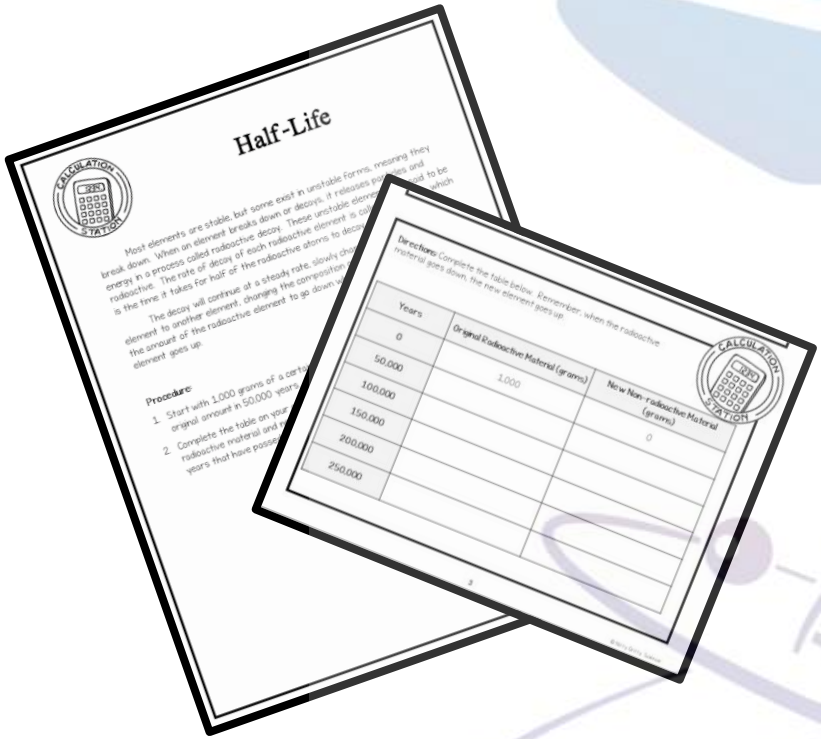
Group members will have images, illustrations, or actual samples at this station that show applications or processes of the science topic.

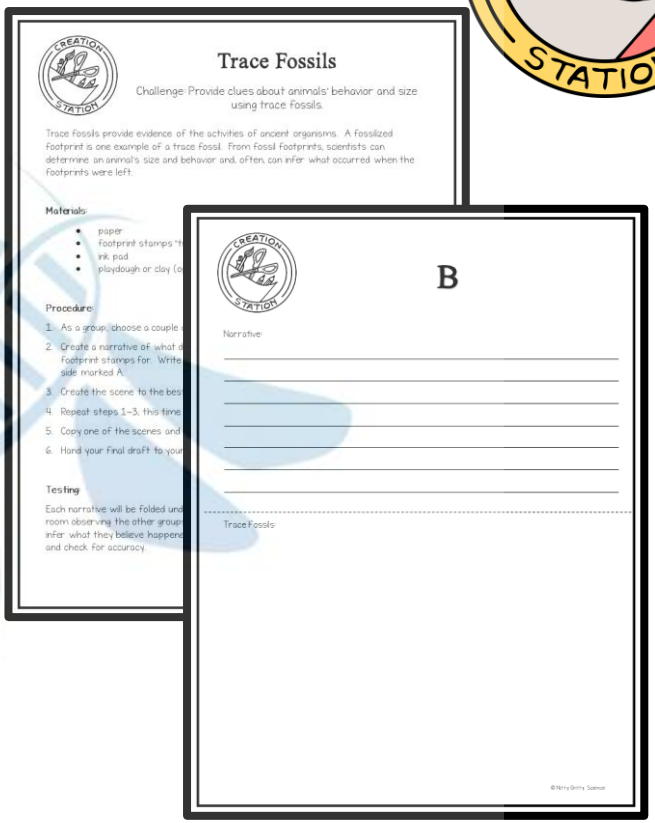
Group members will work with one another to explore the concept through hands-on activities, so they may practice specific inquiry process skills as they learn.



There are three different options for this station: interviews, videos, or group essay. Depending on the option you choose, group members will communicate what they know by answering questions in creative ways.

Group members use their math skills to complete the station challenge. Skills may include graphing, analyzing data, using models, measurement, and calculating formulas or word problems.

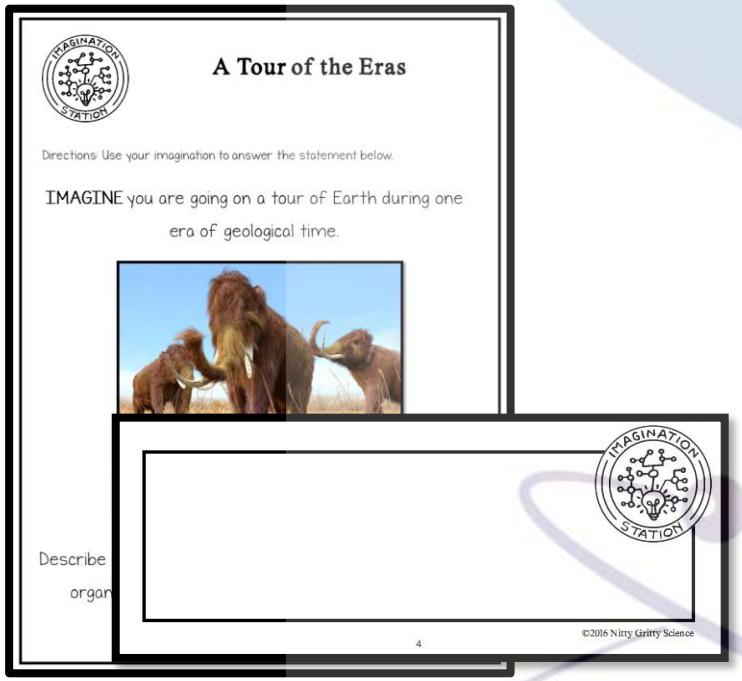


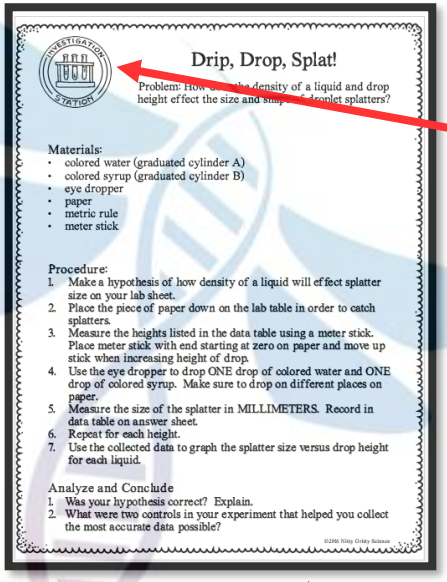


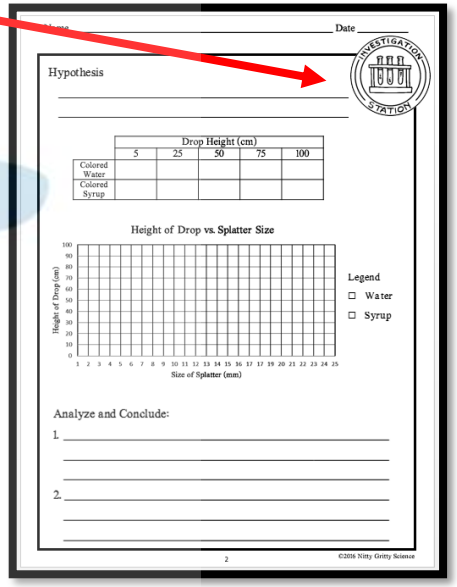
Group members will work together to solve a STEM (Science, Technology, Engineering, Math) challenge by creating models or designs that demonstrate their understanding of the science topic being taught.

This station makes science concepts relevant for students by asking them to imagine scenarios that will bring about discussion and critical thinking.

USER-FRIENDLY PAGES:
Students easily recognize which answer sheet to use at each station by matching station icons located on each page!







TEACHERS SAVE TIME:
Laminate station pages and reuse for each class and for years to follow!

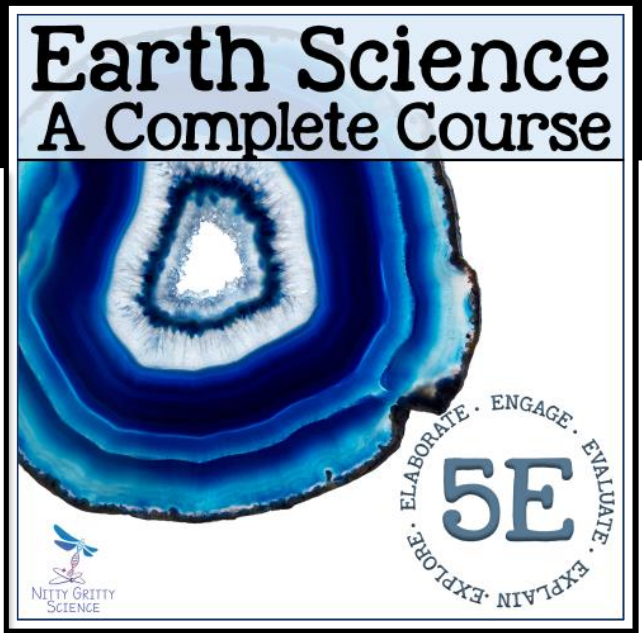
Inquiry and Process Skills

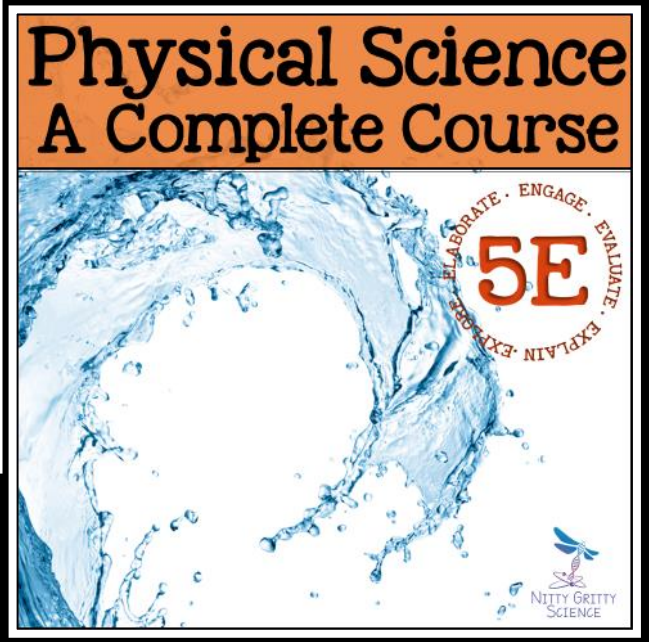
Demo Guided Inquiry Lab Science Stations

Inquiry-Based Science Unit: Earth's History	Classifying	Communicating	Compare & Contrast	Creating Models	Gather/Organize Data	Generalizing	Identifying Variables	Inferring	Interpreting Data and Graphs	Making Decisions	Manipulating Materials	Measuring / Calculating	Observing	Predicting
Fossil Identification	X	X	X			X		X		X	X		X	
Core Sampling		X	X	X	X		X		X		X	X		X
Information Station: Backyard Dinosaurs					X	X		X						
Observation Station: Images & Questions	X		X		X	X		X					X	
Investigation Station: Preserved Remains	X		X		X				X		X		X	
Calculation Station: Half-life			X		X		X		X	X		X		
Communication Station: Questions	X	X				X				X				
Creation Station: Trace Fossils		X		X	X				X	X	X	X	X	X
Imagination Station: A Tour of the Eras		X		X						X				X

NGS promotes scientific inquiry throughout the curriculum. Students become more confident and effective learners while developing problem-solving and critical thinking skills. Process skills, such as planning, organizing and evaluating, help students to complete projects and assignments. These skills allow students to independently gather information, analyze it, and draw their own conclusions.

This download is part of the Nitty Gritty Science Complete Course Collection. Click below to learn more.





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