INTRODUCTION

Thank you for your interest in the All in One Interactive Science Notebook. There are over 200 engaging activities included in this pack. Fold-ups, sorts, and other printable activities are included to help students process new information.

Student communication, Teacher Input, and Student Output are essential parts of a great notebook lesson. This resource makes planning effective lessons a breeze.

An individual license for one teacher is $43.50. Each additional teacher license is $29.00.
**SETTING UP YOUR NOTEBOOK**

- 16 pages of practical tips and photos
- About the Author
- Vocabulary Folder
- Glossary
- Rubric
- Big Money Words
- Output Ideas
- Cover Page
- Student Glossary

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### OUTPUT IDEAS

**TEACHING SCIENCE NOTEBOOK**

1. Start with sentence stems. Model how to complete a sentence stem, then give your students several options for them to complete.
2. Teach students how to do a “quick write” discussing the lab activity. Personal experience connections are also great to teach at first.
3. Teach students how to draw detailed, labeled diagrams.
4. Teach students how to use concept maps. You may want to give them some terms to connect in their concept maps.
5. Move on to other output ideas, allowing your students to choose which one works best for them!

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### INPUT AND OUTPUT PHOTOS

- Drawings and Quick Write
- Sentence Stems

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### MANAGING STUDENTS

Each team (table group) has a set of jobs. This keeps our class focused on the task.

- **Teacher**
  - Helps students record observations and notes
  - Maintains classroom discipline
- **Recorder**
  - Takes comprehensive notes on the class
  - Takes care of the equipment
- **Data**
  - Makes directions about the task
  - Monitors the equipment
- **Reference**
  - Helps students locate the specific task

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PHOTOS, STRUCTURING MINI-LESSONS, MANAGEMENT, AND PRINTABLES

LIFE SCIENCE

ADAPTATIONS AND FUNCTIONS

Have students cut out the fold-ups and set up their notebooks. Write the definition for “structural adaptation” and “function”, then choose 3 animals to describe adaptations of.

Reflection: Choose an animal or plant. Identify two structural adaptations and the functions of each.

TROPHIC LEVELS

Have students cut out the fold-ups and set up their notebooks. Talk about the terms in each level. Make 2 food chains in the blank pyramids.

Reflection: Explain the relative populations of the organisms in each section of one of the pyramids you made.

INCOMPLETE METAMORPHOSIS FOLD-UP

Have students draw pictures of an insect as it goes through Incomplete metamorphosis on the outside. In the example, I used a grasshopper. On the inside, order the stages and describe them.

Recommended Reflection Prompt: What are the defining characteristics of complete metamorphosis?
Fossils

Have students cut out the rocks section and the 2 fossils. Then, they need to glue down the rock section and show the youngest to oldest arrow and which layer is the top and which is the bottom. I would have students choose which section to place the fossils, then glue them down. They would then need to identify which fossil is probably older based on where it was found and what changes the area may have gone through to have the the fossils arranged the way they are.

Formation of Coal

Have students cut out the fold-up, then have students write the 3-4 main steps for the formation of coal as a folded book.

Recommended Reflection Prompt: Is it important to conserve coal? Why or why not?

Wind, Water, Waves, Ice

Have students cut out the fold-up and label the outside Wind, Water, Waves, and Ice. On the inside, have them explain how these four things contribute to weathering and erosion and draw a picture for each.

Recommended Reflection Prompt: How can ice break down landforms and build up new landforms?
SPACE SCIENCE

SUN, MOON, AND EARTH FACTS
Cut out the fold-up. For each fold-up, write 5 important facts.
Recommended Reflection Prompt: Draw a Venn Diagram to compare two of the bodies in space.

METEORS, COMETS, AND ASTEROIDS
Have students cut out the fold-ups and set up their notebooks. Define each term.
Reflection: Make a triple Venn diagram comparing and contrasting asteroids, meteors, and comets.

SHADOWS
Cut out the fold-up. Draw the shadow of the house on each cover. Inside, name the time of day and describe why the shadow appears that way.
Recommended Reflection Prompt: Predict what the shadow will look like at sunset.
Recommended Interactive Website: http://www.harcourtschool.com/activity/science_up_close/317/display/interface.html

SAMPLE PHOTOS, REFLECTION PROMPTS, AND STUDENT PRINTABLES

PHYSICAL SCIENCE

SOLID, LIQUID, AND GAS FOLD-UP
Students cut along the dotted lines and tape or glue underneath “States of Matter”.
Discuss the shape, volume, and examples of each state of matter. Draw and write information on and beneath each flap.

TEMPERATURE IN CELSIUS
After completing a lab activity for melting/freezing point and boiling point, I recommend using this page. Students color in the correct temperatures, cut out the thermometers, and glue them in their science notebooks.

Recommended Reflection Prompt:
Explain why freezing point and melting point are both 0 degrees Celsius.

CONDUCTORS AND INSULATORS
Cut out the fold-up. For each term, write a definition and give examples.

Recommended Reflection Prompt:
Draw a circuit with an insulator and draw a circuit with a conductor.

SAMPLE PHOTOS, REFLECTION PROMPTS, AND STUDENT PRINTABLES
**PROCESS SKILLS**

**Making Observations**

I can make scientific, fact-based, specific observations.

**SUGGESTED USE**

- Cut out the magnifying glass cutout and glue it in your notebook.
- Discuss and record the characteristics of a scientific observation.
- Draw a T Chart with the columns "Scientific Observation" and "Unscientific Observation." Sort the statements.
- Hand out a rock or another object to each student. Have rulers, balances, hand lenses, and other tools available. Have students write 3 scientific observations about the rock or object.

**Bar Graphs**

I can create a bar graph in order to compare numbers.

**SUGGESTED USE**

- Cut out the fold-up and glue it in your notebook. On the front, write "Bar Graphs."
- Go over the information on the left side of the fold-up. On the graph on the right, label the horizontal axis and vertical axis, include a title, write the numbers in equal intervals. Draw bars for made up data.
- Cut out the bar graph cutout. Use the data table included to create a bar graph.

**Writing a Hypothesis**

I can write a hypothesis.

**SUGGESTED USE**

- Cut out the fold-up and glue the left side down.
- Discuss what a hypothesis is. Write down the class's definition in your notebook.
- Use a table or question students wrote from the previous lesson, make one up, or use the one provided. In the fold-up, write a "If...then...because..." statement to form a hypothesis.
- "Does changing the temperature of the water affect whether an egg will sink or float?"

**SAMPLE PHOTOS, REFLECTION PROMPTS, AND STUDENT PRINTABLES**

LIFE SCIENCE TOPICS

ecosystems
life cycles
food chains
inherited traits
learned behaviors
instincts
human body systems
structural adaptations
plant reproduction
photosynthesis
carbon dioxide-oxygen cycle
vertebrates and invertebrates
symbiosis
cells
metamorphosis
EARTH AND SPACE SCIENCE TOPICS

weather
climate
natural resources
fossil fuels
alternative energy
water cycle
carbon cycle
weathering
erosion
landforms
mountains
rocks
soil
clouds
lunar cycle
seasons
planets
Sun-Earth-Moon system
shadows
tides
PHYSICAL SCIENCE TOPICS

- scientific method
- engineering process
- models
- conservation
- testable questions
- writing a hypothesis
- variables
- observations
- repeated trials
- collecting accurate data
- mean
- percent
- maps
- line graphs
- bar graphs
- SI units
- inference
- contribution of scientists
PROCESS SKILLS TOPICS

properties of matter
volume
mass
density
states of matter
constant properties of water
atoms
mixtures and solutions
elements
force
speed
potential and kinetic energy
forms of energy
sound
light
reflection and refraction
physical and chemical changes
electricity