

Science Notebook Companion

 My Science
Notebook



Contents

Science and Engineering Practices	1
Investigation Guide	11
Nature of Science Rubrics and Data Sheets	13
Investigate Practice Science.....	13
Life Science Rubrics and Data Sheets	15
Investigate Plants and Light	15
Think Like a Scientist Plan and Investigate.....	17
STEM Engineering Project.....	19
Think Like a Scientist Develop a Model.....	21
STEM Engineering Project.....	23
Investigate How Desert Plants Survive.....	25
Think Like a Scientist Make Observations	27
Citizen Science Bugs in Our Backyard.....	29
Check-In Rubric.....	31
Earth Science Rubrics and Data Sheets	33
Investigate Erosion.....	33
Think Like a Scientist Make Observations	35
Think Like a Scientist Make a Model	37
STEM Research Project.....	39
Think Like a Scientist Obtain Information	41
Check-In Rubric.....	43
Physical Science Rubrics and Data Sheets	45
Investigate Solids and Liquids.....	45
Think Like a Scientist Plan and Investigate.....	49
Investigate Materials That Absorb	51

Think Like a Scientist	Make Observations	53
Think Like a Scientist	Make an Argument	55
STEM	Engineering Project.....	57
Check-In	Rubric.....	59

To the Student

In *Exploring Science*, you will use a science notebook. Your *Science Notebook Companion* includes tools to support you as you do your work. Here is what you will find in these pages.

Science and Engineering Practices

Read the Science and Engineering Practices. You will use these practices in your science classes

Investigation Guide

Get ready to complete different types of lessons. Read about the investigations and STEM lessons that you will do.

Student Rubrics

Each Investigate, STEM Project, Think Like a Scientist, and Think Like an Engineer activity has a rubric. Use the rubrics to assess your own work. Tear out the rubric and add it to your science notebook.

Data Sheets

Many activities include Data Sheets. Use these pages to record data. Then tear out the page and add it to your science notebook.

Investigate

Erosion

How can you prevent erosion?

Student Rubric

Place a check in the box to show the answer that is true for you.

Rubric	Yes	Not Yet
1. I can describe the problem the investigation addresses.		
2. I can describe two solutions to the problem in the investigation.		
3. I can describe the expectations and requirements for a solution.		
4. I can compare and evaluate potential solutions.		

My Comments

Investigate**Erosion****Record**

Record your observations and predictions in the table below.

	My Predictions	My Observations
first hill		
second hill		

Think Like a Scientist

Make Observations

Student Rubric

Place a check in the box to show the answer that is true for you.

Rubric	Yes	Not Yet
1. I can describe the evidence I observed that shows some Earth events occur slowly and others occur quickly.		
2. I can make observations using three sources.		
3. I can give two examples of Earth events that happen quickly.		
4. I can give two examples of Earth events that happen slowly.		

My Comments

Think Like a Scientist

Make Observations

Record

Record your observations and evidence in the table below.

Earth Event	Fast or Slow Change	Evidence

Think Like a Scientist**Make a Model****Student Rubric**

Place a check in the box to show the answer that is true for you.

Rubric	Yes	Not Yet
1. I can design a model by drawing the land and water features shown in pictures of an area.		
2. I can chose appropriate materials and build a model of land and water to show a relationship between shapes and specific kinds of land and bodies of water.		
3. I can share my model, using evidence to support the pattern of water and land in any given area.		
4. I can explain how I might be able to model a different area using some of the same tools and plans I used for this model.		

My Comments

STEM

RESEARCH PROJECT

Research a Body of Water

Student Rubric

Place a check in the box to show the answer that is true for you.

Rubric	Yes	Not Yet
1. I can choose a body of water on which to report.		
2. I can identify questions and key words to research.		
3. I can conduct research, using questions and key words, to obtain information.		
4. I can use at least two different sources to obtain information.		
5. I can make a model that shows the body of water and write a title and a caption for my model.		
6. I can draft one paragraph of writing that correctly describes the body of water.		
7. I can evaluate and revise to improve my model and writing.		
8. I can share my final model and writing with my class and communicate information clearly.		
9. I can make a presentation that includes all required information: the size and depth of the body of water, the type of water it contains, what the land is like around the water, and other important facts.		
10. I can accurately compare different bodies of water and identify any patterns they share.		

My Comments

Check In

Check In | Self-Assessment Checklist

Science Notebook Student Rubric

- Use the list to help you think about what you have learned.
- Look through your science notebook to help you.
- Place a check in the box to show the answer that is true for you.

Rubric	Yes	Not Yet
1. I defined and made drawings of science words and main ideas.		
2. I labeled drawings. I wrote to explain ideas.		
3. I collected photos, news stories, and other objects.		
4. I used tables, charts, or graphs to record observations.		
5. I recorded reasons for explanations and conclusions.		
6. I wrote how scientists and engineers answer questions and solve problems.		
7. I asked new questions.		
8. I did something else. (Tell about it.)		

My Comments
