Science 6th Grade Student Guide

Materials needed:

- Earth and Space Science Interactive Notebook
- Physical Science Interactive Notebook
- Pocket Volcano
- Rock Tumbler
- Electricity Discovery Kit
- Kids Discover: Earth; Energy; Electricity
- Brainpop.com subscription
- A blank notebook

Interactive Notebooks should have a Table of Contents at their beginning so that you can easily find a topic in your notebook later. Reserve the first page (front and back) for your Table of Contents. Number your notebook pages as you go and remember to update your Table of Contents each time you complete a section.

Week 1:

Scientific Method

- ❏ Watch Brain Pop: Scientific Method
- ❏ Complete the Flow Chart page and cut out the flow chart and glue it in to your notebook.
- ❏ Update your table of contents.

Earth Science - Earth Basics

- ❏ In your notebook, title your page: "Earth Notes." As you read *Kids Discover: Earth,* take notes on anything interesting/important.
- ❏ Continuing your Earth Notes page, use the table on pages 16-17 of *Kids Discover: Earth* to explain how ecological capacity and ecological footprint differ. Also, Is the world living within its ecological capacity? Explain your answer.
- ❏ Draw a diagram showing where the Earth places in the solar system. Also, draw the earth as a circle/sphere and label the equator and the different hemispheres (you may need to refer back to *Kids Discover: Earth).*
- ❏ Update your table of contents.

Week 2-3:

Earth Science - Natural Resources

- ❏ Watch Brainpop: Natural Resources
- ❏ Make a copy of pg. 8 in your in your Earth and Space Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 7 of Earth and Space Science Interactive Notebook, cut out and arrange the sections from your pg. 8 copy in to your notebook.
- ❏ Update your table of contents.

Earth Science - Earth's Structure and Changes

- ❏ Listen to the Brains On! Podcast: *Mysteries of the universe: Expansion and gravity* and take notes as you listen.
- ❏ Title a page in your notebook, "Planet Earth Video Notes."
- ❏ Watch Everything You Need to Know About Planet Earth + take notes
- ❏ Watch Bill Nye ep. 1 (Earth's Crust) + Title a page "Bill Nye Earth's Crust Notes" and take notes as you watch.
- ❏ Update your Table of Contents
- ❏ Make a copy of pg. 12 in your in your Earth and Space Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 11 of Earth and Space Science Interactive Notebook, cut out and arrange the sections from your pg. 12 copy in to your notebook.
- ❏ Watch the Volcanoes Brain Pop video + complete the activity page and attach it in your notebook.
- ❏ Listen to the Brains On! Podcast: *How do volcanoes erupt?* and take notes as you listen.
- ❏ Make a copy of pg. 14 in your Earth and Space Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 13 of Earth and Space Science Interactive Notebook, cut out and arrange the sections from your pg. 14 copy in to your notebook.
- ❏ Watch the Brainpop Earthquakes video.
- ❏ Copy the diagram from the sequence chart activity in to your notebook and complete it.
- ❏ Make a copy of pg. 16 in your in your Earth and Space Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 15 of Earth and Space Science Interactive Notebook, cut out and arrange the sections from your pg. 16 copy in to your notebook.
- ❏ Update your Table of Contents
- ❏ Experiment with your pocket volcano!

Week 4:

Earth Science - Weathering and Erosion

- ❏ Watch the Brainpop Weathering video
- ❏ Make a copy of pg. 24 in your in your Earth and Space Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 23 of Earth and Space Science Interactive Notebook, cut out and arrange the sections from your pg. 24 copy in to your notebook.
- ❏ Watch the Brainpop Erosion video.
- ❏ Complete the Categorize the Landforms activity page and cut it out and attach it in your notebook (you don't need to do the bottom research activity).
- ❏ Make a copy of pg. 26 in your in your Earth and Space Science Interactive Notebook.

        - ❏ Using the information and instructions on pg. 25 of Earth and Space Science Interactive Notebook, cut out and arrange the sections from your pg. 26 copy in to your notebook.
    - ❏ Using your rock tumbler, create an experiment to test how weathering and erosion affects rocks over different sets of tumbling time. Tumble rocks for different amounts of time and compare the differences. The tumbler can simulate millions of years of weathering in a short amount of time. Record your experiment using the Scientific Method steps. BEFORE you begin, make sure you are following the scientific method steps. Be sure to state your hypothesis before you begin the experiment!
    - ❏ Update your Table of Contents

Week 5-6:

Physical Science - Energy

- ❏ You're going to do an experiment with Silas this week. Choose a day to work together. He has the instructions for the experiment.
- ❏ Watch the Brainpop Forms of Energy video.
- ❏ Make a copy of pg. 36 in your in your Physical Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 35 of Physical Science Interactive Notebook, cut out and arrange the sections from your pg. 36 copy in to your notebook.
- ❏ Listen to the Brains On! Podcast: *Charged Up! The science of batteries* and take notes as you listen.
- ❏ Watch the Brainpop Waves video.
- ❏ Make a copy of pg. 40 in your in your Physical Science Interactive Notebook.
        - ❏ Using the information and instructions on pg. 39 of Physical Science Interactive Notebook, cut out and arrange the sections from your pg. 40 copy in to your notebook.
- ❏ Watch: The Big Energy Gamble + take notes OR write a one paragraph summary of the video when it is done.
- ❏ Update your Table of Contents

Week 7-8:

Physical Science - Nuclear Energy

- ❏ Watch the Brainpop Nuclear Energy video.
- ❏ Complete the graphic organizer activity page and attach it in your notebook.
- ❏ Follow the instructions on the Viewpoints page. Write both sides of the argument in your notebook.
- ❏ Update your Table of Contents

Physical Science - Electricity

- ❏ Read Kids Discover: Electricity + take notes on anything interesting/important.

- ❏ Watch the Brainpop Electricity video + record definitions for *static electricity; electrical currents; electrical circuit; magnetic field; magnetic poles*. Title your page "Electricity Definitions."
- ❏ Listen to the Brains On! Podcast: *High Voltage! How electric power reaches your outlet* and take notes as you listen.
- ❏ Watch the Brainpop Electric Circuits video.
- ❏ Complete the Label It and Think About it activity page and attach it in your notebook.
- ❏ Make a copy of pg. 56 in your in your Physical Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 55 of Physical Science Interactive Notebook, cut out and arrange the sections from your pg. 56 copy in to your notebook.
- ❏ Make a copy of pg. 58 in your in your Physical Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 57 of Physical Science Interactive Notebook, cut out and arrange the sections from your pg. 58 copy in to your notebook.
- ❏ Use your Electricity Discovery Kit. In your notebook, show what you did with it by drawing diagrams and writing. Include information about your process and findings. Remember, a reader should be able to understand just what happened by what your write.
- ❏ Update your Table of Contents

Week 9:

Physical Science - Heat

- ❏ Watch the Brainpop Heat video
- ❏ Complete the Gauging Heat's Properties activity page and attach it in your notebook.
- ❏ Make a copy of pg. 38 in your in your Physical Science Interactive Notebook.
    - ❏ Using the information and instructions on pg. 37 of Physical Science Interactive Notebook, cut out and arrange the sections from your pg. 38 copy in to your notebook.
- ❏ Watch the video for the Balloon in a Candle Flame experiment and follow along with your own materials to conduct the experiment yourself. BEFORE you begin, make sure you are following the scientific method steps. Be sure to state your hypothesis before you begin the experiment!
- ❏ Update your Table of Contents