



# Cub Scout Geology

## Cub Scout Academics and Sports Workbook

This workbook is not required but can help you with this award. Belt Loops and Pins may be earned more than once.

Links to other workbooks and resources are at the end of this workbook: [Online Resources](#).

Send comments to the workbook developer: [craig@craiglincoln.com](mailto:craig@craiglincoln.com). Workbook updated: March, 2011.

Scout's Name: \_\_\_\_\_

Pack: \_\_\_\_\_

### **Cub Scout Geology Belt Loop** (See the [Pin Requirements](#) below.)

**Complete these three requirements:**

1. Explain to your den or an adult family member what *geology* means.. \_\_\_\_\_

\_\_\_\_\_

2. Collect samples of igneous, sedimentary, and metamorphic rocks. Explain how each was formed.

igneous, \_\_\_\_\_

\_\_\_\_\_

sedimentary, \_\_\_\_\_

\_\_\_\_\_

and metamorphic rocks \_\_\_\_\_

\_\_\_\_\_

3. Collect samples of three minerals.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

Explain to your family or den what a mineral is and show and tell about the minerals you collected. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **Cub Scout Geology Pin**

**Earn the Cub Scout Geology belt loop, and complete five of the following requirements:**

1. Make a plaster cast of a fossil. \_\_\_\_\_

2. Make a special collection of rocks and minerals that illustrates the hardness scale. \_\_\_\_\_

3. Give examples of sedimentary, \_\_\_\_\_

\_\_\_\_\_

igneous, \_\_\_\_\_  
\_\_\_\_\_  
and metamorphic rocks. \_\_\_\_\_  
\_\_\_\_\_

4. Gather several different types of rocks. Compare them and put them in groups according to physical properties such as color, texture, luster, hardness, or crystals. \_\_\_\_\_

5. Describe the effects of wind, water, and ice on the landscape. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Make "pet rocks" using rocks, paint, and glue-on eyes. Tell a creative story about your pet rocks. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Draw a diagram showing different types of volcanoes or draw a diagram that labels the different parts of a volcano.

8. Make a crystal garden. \_\_\_\_\_

9. Make a collection of five different fossils and identify them to the best of your ability. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Make a poster or display showing 10 everyday products that contain or use rocks or minerals. \_\_\_\_\_

11. Visit a mine, oil or gas field, gravel pit, stone quarry, or similar area of special interest related to geology. \_\_\_\_\_

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12. With your parent or adult partner, visit with a geologist. Find out how he or she prepared for the position. \_\_\_\_\_

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Discuss other careers related to geology. \_\_\_\_\_

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13. Draw the inside of a cave showing the difference between stalactites and stalagmites.

**Online Resources** *(Use any Internet resource with caution and only with your parent's or guardian's supervision.)*

**Cub Scout Academics and Sports Workbooks:** [meritbadge.org](http://meritbadge.org) -or- [Academics](#) / [Sports](#)

**Webelos Activity Badge Workbooks:** [usscouts.org](http://usscouts.org) -or- [meritbadge.org](http://meritbadge.org)

**Boy Scout Merit Badge Workbooks:** [usscouts.org](http://usscouts.org) -or- [meritbadge.org](http://meritbadge.org)    **Merit Badge Books:** [www.scoutstuff.org](http://www.scoutstuff.org)

### **Requirement Resources**

These resources and much more are at: [http://meritbadge.org/wiki/index.php/Cub\\_Scout\\_Geology](http://meritbadge.org/wiki/index.php/Cub_Scout_Geology)

1. [What is a Fossil?](#) - How to make a fossil cast: [From hometraining.com](#) - [from eHow](#)
2. [Scale of hardness](#) with examples and photos
3. [The three classes of rocks](#) - [Rocks & the Three Types](#) - [Rock](#)
4. [Mineral Origin & Chemical Composition and identification properties](#)
5. [The effects of wind, water, and ice on the landscape](#) - [Wikipedia with many photos](#)
7. Wikipedia Diagram: [Volcano](#) - Encarta Diagram: [Volcano](#)
8. [How to Make a Crystal Garden](#) - [eHom Instructions](#)
9. [Fossil Facts](#) - [USGS Fossils](#) - [How Fossils are Formed](#) - [Chart of geological eras of fossils](#) - [Fossil](#)
10. [Resources that can be extracted or mined](#) - [Common Minerals and Their Uses](#) - [Geologic materials used in building materials](#) - [Common Minerals and Their Uses](#) - [Minerals.Net Mineral Resources](#) - [WebMineral.Com](#) - [Resources that can be extracted or mined](#) - [Iron Refining](#) - [Oil Refining](#) - [Diamonds](#) - [Gold](#) - [Coal](#)
12. [Careers in Geology: Geology Careers](#) - [Geoscience Careers](#) - [Careers in Geology](#) - [Careers in Geology](#)

13. Encarta Encyclopedia: [Caves](#) - [Stalactites and Stalagmites](#) - Wikipedia: [Lots of great photos of Caves](#) - [Cave Diagram with Stalactites and Stalagmites](#)