



# Cub Scout Science

## 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: April 2008.

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

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

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

**Complete these three requirements:**

1. Explain the scientific method to your adult partner. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Use the scientific method in a simple science project Explain the results to an adult. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Visit a museum, a laboratory, an observatory, a zoo, an aquarium, or other facility that employs scientists. Talk to a scientist about his or her work. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### **Cub Scout Science Pin**

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

1. Make a simple electric motor that works. \_\_\_\_\_
2. Find a stream or other area that shows signs of erosion. Try to discover the cause of the erosion. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Plant seeds. Grow a flower, garden vegetable, or other plant. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Use these simple machines to accomplish tasks: lever, pulley, wheel-and-axle, wedge, inclined plane, and screw. \_\_\_\_\_  
\_\_\_\_\_

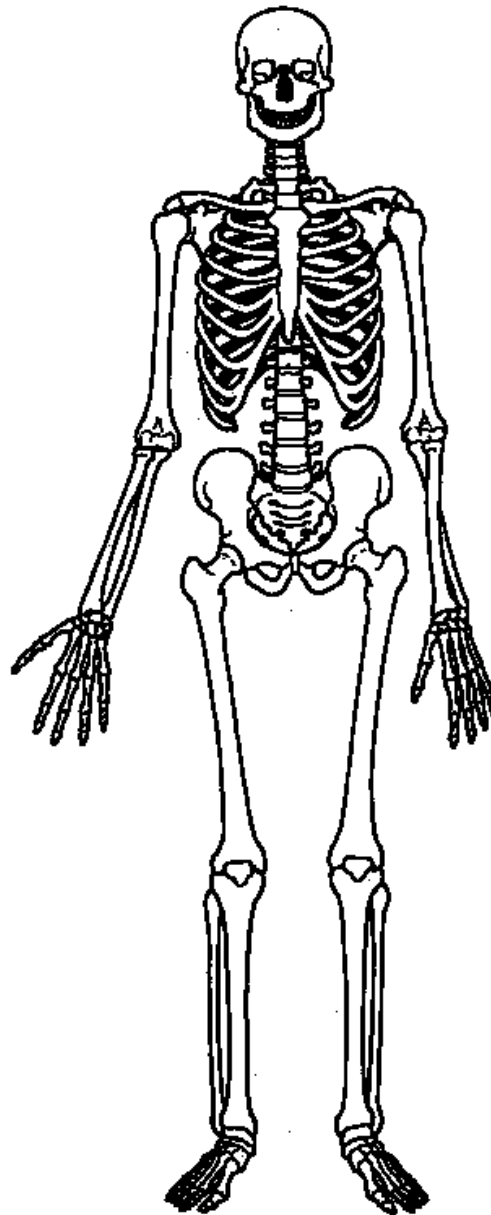
- 5. Learn about solids, liquids, and gases using just water. Freeze water until it turns into ice. Then, with an adult, heat the ice until it turns back into a liquid and eventually boils and becomes a gas. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 6. Build models of two atoms and two molecules, using plastic foam balls or other objects. \_\_\_\_\_

- 7. Make a collection of igneous, metamorphic, and sedimentary rocks and label them. \_\_\_\_\_

- 8. Learn about a creature that lives in the ocean. Share what you have learned with your den or family. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 9. Label a drawing or diagram of the bones of the human skeleton. \_\_\_\_\_



- 10. Make a model or poster of the solar system. Label the planets and the sun. \_\_\_\_\_

- 11. Do a scientific experiment in front of an audience. Explain your results. \_\_\_\_\_

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12. Read a book about a science subject that interests you. \_\_\_\_\_

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

**Cub Scout Advancement:** <http://usscouts.org/advance/cubscout/ranks.asp>

**Tiger:** <http://meritbadge.org/wiki/index.php?title=Tiger>

**Wolf:** <http://meritbadge.org/wiki/index.php?title=Wolf>

**Bear:** <http://meritbadge.org/wiki/index.php?title=Bear>

**Webelos:** <http://meritbadge.org/wiki/index.php?title=Webelos>

**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 Scouts of America:** <http://www.scouting.org/> ▶ [Guide to Safe Scouting](#) ▶ [Age-Appropriate Guidelines for Activities](#)

Make and Run a Simple Electric Motor Plans: ▶ [Best](#) ▶ [Great](#) ▶ [Good](#) ▶ [BoysLife](#) ▶ [4H Book](#)

Amer. Institute of Chemical Eng.: <http://www.aiche.org>

Amer. Soc. of Civil Eng.: <http://www.asce.org>

ASME (Amer. Soc. of Mechanical Eng.): <http://www.asme.org>

Institute of Electrical and Electronics Eng.: <http://www.ieee.org>

Jet Propulsion Laboratory: <http://www.jpl.nasa.gov>

Junior Engineering Technical Soc.: <http://www.jets.org>

Kennedy Space Center: <http://www.ksc.nasa.gov>

NASA: <http://www.nasa.gov>

Smithsonian National Air and Space Museum: <http://www.nasm.si.edu>