

Scientist Requirements

Do these:

1. Read Bernoulli's principle. Show how it works.
2. Read Pascal's Law. Tell about some inventions that use Pascal's Law.
3. Read Newton's first law of motion. Show in three different ways how inertia works.
4. **While you are a Webelos Scout, earn the Cub Scout Academics belt loop for Science.**

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. *Visiting museum, a laboratory, an observatory, a zoo, an aquarium, or other facility that employs scientists. Talk to a scientist about his or her work.*

And do six of these:

5. Show the effects of atmospheric pressure.
6. Show the effects of air pressure.
7. Show the effects of water pressure. This may be combined with atmospheric pressure or with air pressure.
8. With adult supervision, build and launch a model rocket. Describe how Newton's third law of motion explains how the rocket is propelled into the sky.
9. Explain what causes fog. Show how this works.
10. Explain how crystals are formed. Make some.
11. Explain how you use your center of gravity to keep your balance. Show three different balancing tricks.
12. Show in three different ways how your eyes work together and show what is meant by an optical illusion.

13. While you are a Webelos Scout, earned the Academics belt loop for Weather.

Complete these three requirements:

1. *Make a poster that shows and explains the water cycle.*
2. *Set up a simple weather station to record rainfall, temperature, air pressure, or evaporation or one week.*
3. *Watch the weather forecast on a local television station.*

14. While you are a Webelos Scout, earned the Academics belt loop for Astronomy.

Complete these three requirements:

1. *Demonstrate how to focus a simple telescope or binoculars. (A local astronomy club may be a resource for this activity.)*
2. *Draw a diagram of our solar system – identify the planets and other objects.*
3. *Explain the following terms: planet, star, solar system, galaxy, the Milky Way, black hole, red giant, white dwarf, comet, meteor, moon, asteroid, star map and universe.*