



# Scientist Cub badge

1. Demonstrate any two simple experiments of your own choice. Explain to the examiner what you are doing and what your experiment has proved. Your experiment can be anything that interests you and should be based on your own discoveries.
2. Complete any two of the following experiments:
  - Make a model (house, theatre, stage, etc.) and wire it up with bulbs, batteries and switches.
  - Make gliders from polystyrene sheets or cards. Devise tests to see which works best: stays up the longest, flies furthest, is easiest to control for turns and loops.
  - Demonstrate that white light is made up of several colours.
  - Make a periscope or microscope and explain how it works.
  - Make a weather apparatus to record at the same time each day of the week the following: wind direction, rainfall, humidity, clouds and temperatures.
  - Find out what happens when light and water are not used when growing plants. Discuss what you have discovered
  - Grow some crystals from a concentrated solution of any chemical.
  - Devise an experiment which proves that metal expands with heat.
  - Prepare an invisible ink, show how to use and describe how it works.
  - Demonstrate that sound travels.

Youth name: \_\_\_\_\_

Parent/examiner: \_\_\_\_\_

