

SCIENCE AWARDS TRUST[©]

Sample activities from the **ADVANCED EXPLORER** Badge activity card

Suitable for Year 6

This card is not to be photocopied

Each Section has 8 activities

THE LIVING WORLD

5. Choose four packaged breakfast cereals. Look at the table of ingredients on each. Would these foods be suitable for part of a healthy diet? Explain your answer.
6. Make a bird table/ feeder for use at home or at school. Using different sorts of food, feed the birds daily and record your observations over a 2 week period. Present your findings.
8. Find out why your arm has two muscles to work the elbow joint. Describe how a muscle works. Make a working model of an elbow

THE PHYSICAL WORLD

2. Find out and draw the way infra-red remotes work. List the uses and devices that utilise infra-red and what they are used for.
4. Using Lego/Technic Lego or similar materials create a device for lifting loads. Explain where in the real world the machine could be used. Make a list of at least 3 problems you found in the construction of your machine, and/or any changes you made to the original design.
6. Design a way of testing the “bouncability” of at least 5 different types/sizes of balls. Graph your findings.

MATERIAL WORLD

3. What is chromatography? Set up a demonstration and explain how it works to your class.
4. Freeze equal amounts of the following - lemon juice, mixture of salt and water, tap water, another liquid of your choice. Make sure they all start at the same temperature. Measure how long it takes for each liquid to freeze. Present your findings as a graph.
6. Why do bicycles rust? Devise your own experiment to determine under what conditions iron will rust. Predict your results, record and present your findings. Do your predictions match your findings?

PLANET EARTH & BEYOND

1. Construct a diorama in a shoebox or construct a model to show the major features of the watercycle.
7. Graph how much rubbish is produced from your house on a daily basis. Sort this rubbish into materials that can be recycled in your area, those that can be composted, and things that have to go to landfill.
Plan a waste reduction programme with the agreement of your family. Carry this out and report the results.