



# Science Explorer Badge sample activities

This is a sample of the Science Explorer Badge activities. Its main purpose is to show you some of the interesting activities that you can do when you choose this badge. Also, you can use this sample sheet to start doing the badge activities, while your teacher is sending away for the full activity sheet and badge.

If you have completed some of these activities before your full sheet arrives, your teacher can mark this sheet, then transfer the marks to the full activity sheet.

The Living World	
1	Find out what LPG and CNG are. For an extra star design a poster showing how they are produced and used.
2	Find four different types of paper e.g. newsprint, toilet paper, paper bag, photocopy paper. Measure and record how hard they are to tear when dry and when wet. Look at each under a microscope or magnifying glass and report how they differ. Record your results on a chart.
3	(a) Draw a picture of an animal in its natural habitat, Label special features of the animal and its habitat. (b) Draw a diagram to show your animal in its food chain.
Planet Earth and Beyond	
1	Record the weather for 7 days at your home or school. Record the temperature and wind direction, at a specific time every day. Record the daily rainfall over each 24 hour period. Compare your findings with weather maps in your area using newspapers or internet.
2	Design and make a rain gauge from a plastic bottle and measure the daily rainfall over a 2 week period. Graph and interpret your findings.
3	Collect at least 15 different rocks. Classify them in any way you choose and record why you chose to classify them that way.
The Material World	
1	Collect several different types of kitchen utensils. Predict which utensils will or will not float. Test your predictions. Display your results.
2	List the steps needed to change an ice cube into steam. Describe the apparatus you need to do this. Carry out your method with adult supervision and explain your results in a report.
3	Investigate how you could make something useful out of old newspapers. List your ideas and demonstrate one of these by making it.
The Physical World	
1	Design a paper dart for a specific purpose (eg distance, turning, load carrying). Predict its performance. Trial your dart. Record its performance, modify and continue this process until you reach its optimum (best) performance.
2	Construct a colour wheel using paint showing how primary colours are mixed to make a range of secondary colours.
3	Using Lego or other suitable materials, design and create a bridge at least 30cm long that is strong enough to support a 500g mass (e.g. a can of baked beans or block of butter, if you don't have weights) at its centre when spanning a 25cm gap between 2 desks.