



Advanced 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	Collect leaves from at least 8 different native plants and name them (eg common, Maori, botanical). Classify them into at least 3 different groups for display e.g. shape, use, colour etc. Explain how you have grouped them.
2	Draw a detailed diagram of a plant. Label at least 6 parts and describe the function of each part.
3	Cut the top off several carrots. Grow one top in ordinary tap water. Grow the others in tap water with varying concentrations of salt. Observe, record and graph their growth over 3 weeks.
Planet Earth and Beyond	
1	Construct a diorama in a shoebox or construct a model to show the major features of the watercycle.
2	Choose a major natural feature in your local environment (e.g. river, mountain, lake) that is changing over time. Draw it in the past, present and future.
3	Make a mobile of the Earth, Moon and planets in our solar system. List at least 3 main features for each.
The Material World	
1	ADULT SUPERVISION ESSENTIAL. Use a basic pikelet recipe. Mix the ingredients and divide the mixture evenly into 4 bowls. Make pikelets using one bowl of mixture. To the other bowls add more of one of the ingredients, e.g. more flour or more baking powder. Predict how this will affect the pikelets. Make the pikelets. Record your predictions and findings.
2	Design and make a piece of jewellery using easily available materials. Explain why you used these materials and what physical or chemical properties made them suitable.
3	What is chromatography? Set up a demonstration and explain how it works.
The Physical World	
1	Choose a sport or recreation activity. Research the effects of technology on that activity. Share your findings.
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.
3	Define the 6 different types of Simple Machines, commonly identified by scientists. Make a collection of images showing the different types. Classify and label them.