



Cubs Science Badge

To earn the scientists activity badge, Cubs must complete 6 activities choosing at least 1 from each section. For each one, Cubs should be able to explain or show a leader what you did and what you found out.

Section 1 – Reactions		
Badge clause	Activities	Duration
Vinegar Reactions	<ul style="list-style-type: none"> Learn about acids and how they interact with different items. 	10 min
Add salt to water	<ul style="list-style-type: none"> Explore density by adding salt to water and seeing which objects float. 	10 min
Density	<ul style="list-style-type: none"> Compare the density of water to other liquids and show how they interact with each other. 	15 min
Make a pH Indicator solution	<ul style="list-style-type: none"> Use red cabbage to make a natural indicator and explore the pH of household chemicals. Learn about acids and bases 	15 min
Grow crystals	<ul style="list-style-type: none"> Grow crystals in a jar using household chemicals. 	20 – 30 min
Section 2 - Interacting with energy		
Make a simple switch	<ul style="list-style-type: none"> Make a simple switch to turn the light on/off. Explore parallel and series circuits using an electronics board. Test materials which conduct electricity. 	15 min
Make an air-powered rocket	<ul style="list-style-type: none"> Make and race balloon rockets. Investigate ways of improving how far it can travel. 	20 min
Make a simple compass	<ul style="list-style-type: none"> Learn about magnetic forces. Make a compass and explore the effects of metallic and magnetic objects. 	10 min
Spaghetti + Marshmallows structures	<ul style="list-style-type: none"> Learn about tall structures. Work as a team to build the strongest tower you can using spaghetti and marshmallows. 	20 min
Show how hot air rises	<ul style="list-style-type: none"> Inflate a hot air balloon using a toaster Inflate a balloon using hot water 	15 min
Section 3 – Living things		
Badge clause	Activities	Duration
Make some yoghurt	<ul style="list-style-type: none"> Set up a yogurt starter culture Explore 'good' and 'bad' bacteria 	20 min
Grow cress	<ul style="list-style-type: none"> Investigate what plants require to grow - water, light, warmth. 	20 min
Set up a wormery	<ul style="list-style-type: none"> Use soil, sand and leaves to set up a worm colony and record what happens over a few weeks. 	15 min
How do plants transport water	<ul style="list-style-type: none"> Find out about different parts of a plant. Use coloured water to explore how plants take water up their stems. 	10 min



Science Geek

Mad Scientist Workshops

Investigate your pulse rate before, during and after exercise	<ul style="list-style-type: none">• Meet Boris and find out all about how the heart works.• Measure your pulse and blood pressure relaxing, standing and after exercise.	20 – 30 min
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Set up time: 30 min

- Science Geek will provide all the equipment and reagent for the mad scientist workshops with the exception of access to tables and chairs, plug sockets, water and waste water. A full risk assessment is available upon request.
- A booklet will be provided for each cub to make observations and record their findings.
- <https://fundraising.scouts.org.uk/rollsroyce>