



1st London Colney Cub Pack

Scientist Activity Badge



Name: _____

How to earn your badge

Do six activities. You should choose at least one from each of these sections.

For each one, explain or show to a leader what you did and what you found out.

Section 1: reactions

- Show how vinegar reacts with different items and explain what happens. The different items could be steel wool, sodium bicarbonate or old dirty coins.
- Find out what happens when you add salt to water.
- Compare the density of water to the density of other liquids. Show how these liquids react to each other.
- Make a pH indicator solution. Use it to test the acidity or alkalinity of other liquids.
- Grow crystals.

Section 2: interacting with energy

- Create a basic electrical circuit which includes a switch. Show how it could be used to control a light bulb powered by a battery.
- Make an air powered balloon rocket or a water rocket. Investigate ways of improving how far it can travel.
- Make a simple compass. Show the effects of metallic and magnetic materials upon it.
- Use marshmallows and spaghetti to build the strongest tower you can. Explain how you have improved your design.
- Find a way to show that hot air rises.

Section 3: living things

- Set up a wormery or ant colony. Record what happens over three or four weeks
- Investigate what happens to your pulse rate before, during and after exercise.
- Grow cress, beans, peas or a similar plant. Investigate what happens when the plant has no access to light. What happens when it has light, but no water?
- Find a way to show that plants take water up through their stems.
- Make some yoghurt and find out how living organisms are involved in the process.

Science Project 1: Reactions

Write out what experiment you are doing here. > _____

What are you going to do?

What happened during your experiment?

What are the final results?

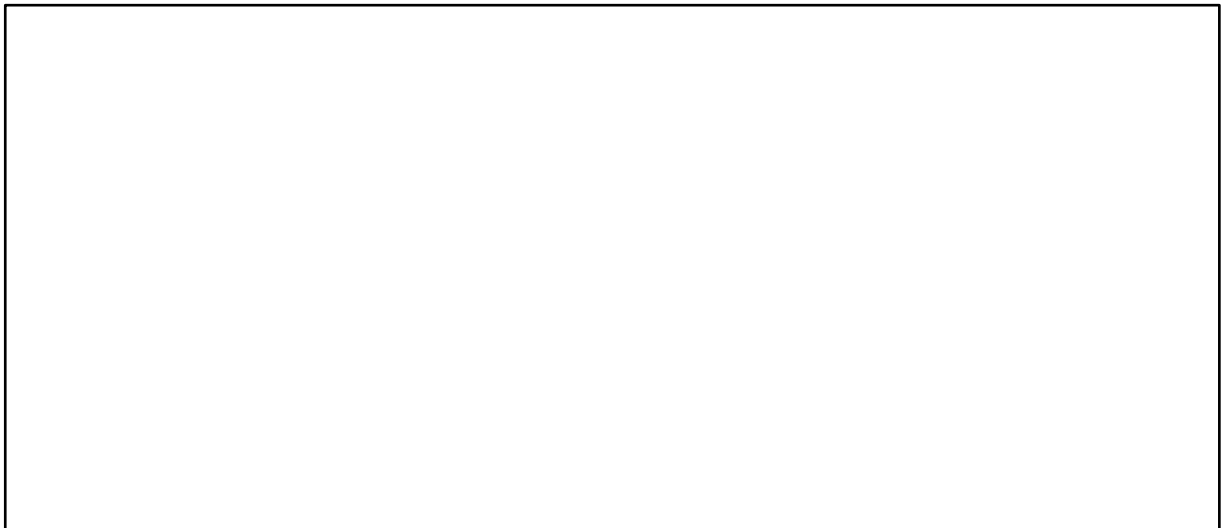
Science Project 2: Interacting with Energy

Write out what experiment you are doing here. > _____

What are you going to do?

What happened during your experiment?

What are the final results?



Science Project 3: Living Things

Write out what experiment you are doing here. > _____

What are you going to do?

What happened during your experiment?

What are the final results?



Science Project 4: _____

Write out what experiment you are doing here. > _____

What are you going to do?

What happened during your experiment?

What are the final results?

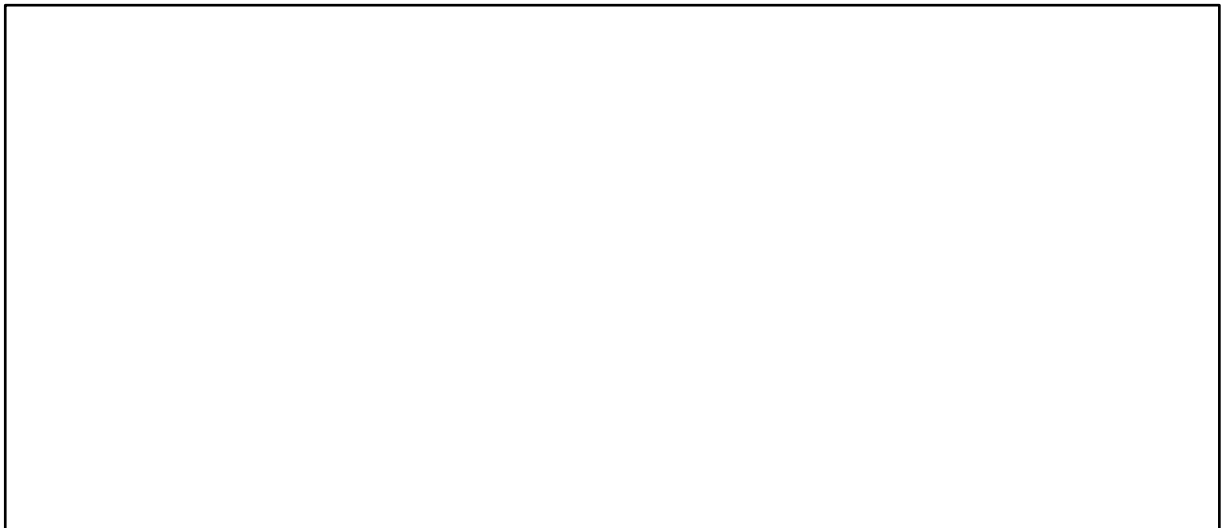
Science Project 5: _____

Write out what experiment you are doing here. > _____

What are you going to do?

What happened during your experiment?

What are the final results?



Science Project 6: _____

Write out what experiment you are doing here. > _____

What are you going to do?

What happened during your experiment?

What are the final results?

