Paper planes

Find out how the shape of the wing can change a plane's direction. Try different types of paper. Create a 'fair test' where only the type of paper is changed. Keep the size the same and style the same. Measure how far your different paper planes fly. Measure and record your results. Graph your results.

- Trick planes?
- Different style of planes?

Make a Wormery

See how worms' wriggling techniques mix up the soil and help plants grow. Use a large plastic bottle with the top cut off. Add layers of soil and sand. Put dead leaves and a little water on top. Add 2 or 3 worms. Cover the top with cling wrap with air holes. Tape dark paper around the edge, but leave a gap for viewing.

Speedy Shoots

Grow your own plants. Try growing seeds in a glass jar with paper towel in a dark cupboard until they sprout. Then transfer to soil. Place them so kids can see the seeds at the side of the jar. You could experiment with growing in the dark/light, different seeds, etc.

Bug Watch

Search in the soil to find out what's living under your feet.
Cut the top third off a plastic bottle. Place upside down in the bottom two thirds. Fill top part with garden soil, including dead leaves. Leave under a lamp for a couple of hours. Some bugs will burrow down and fall to the bottom. Draw a detailed diagram of them. Can you name them?

Cooking

Cooking is Science, so get the kids involved! Try

- Baking bread with and without yeast
- Making your own muesli
- Creating a gourmet sandwich
- Making smoothies
- Toasted sandwiches – what changes, what stays the same?
- Bake a cake/biscuits etc. from scratch.

Prep Science

During Term 1, we have been studying the properties of materials, with the end goal to produce a party hat for themselves. They should be able to identify the properties of their decorations and determine if it is a rainy day or sunny day hat, dependent on the shadow the hat produces and the 'water-proof-ness' of the materials. The students can draw a plan of their hat and then construct it, using recycled materials from around home. Be sure to take a photo/video and explain what they used and why. Can they create their hat as an Easter Bonnet?

Grade 1/2 Science

During Term 1, we have been looking at materials, and how they can be mixed/separated. The students from year 1/2 could complete an activity to investigate what makes up black ink. Use a strip of paper towel, draw a black line about two fingers from the bottom. Dip the edge of the paper towel into a cup of water (with about 1 fingers water in the bottom). Watch what happens as the water travels up the paper towel. Allow the strip to dry. Try different types of black textas. Try different coloured textas. Record your observations and attach the strips, once dry.

Grade 3/4 Science

During Term 1, we have been looking at forces, and how they affect the movement of objects. We have explored pushes and pulls, friction and gravity. Our next step is to conduct an investigation on the forces involved in a catapult. Complete the following activities:

1. **'Catapult Capers'** investigation
2. Create a game using sports equipment, and draw an annotated diagram, demonstrating how pushes, pulls, friction and gravity affect your game. Include arrows to represent the size of the forces involved.

Grade 5/6 Science-

During Term 1, we have been looking at micro-organisms. We have explored yeast and the factors that affect its growth. Our next step is to bake some bread and conduct an investigation (experiments) of moulds. Complete the following activities:

1. Reading about **'Moulds',** highlighting key words and noting anything of interest or questions they have.
2. **'Mould growth investigation planner'**
3. **'Penicillin – the miracle mould'** reading, highlighting key words and noting anything of interest or questions they have.

Magic School Bus

Despite appearances, this is aimed at all primary aged students, and even explains the basics to a few secondary students I know! Even when the content is above the younger students, they will still be exposed to good science language and make them aware of the Science going on all around us.

Corny Goo

Make a goo with strange behaviour.

- Put 2 tablespoons of cornflour into a bowl.
- Add a tablespoon of water, stirring well.
- Keep adding water, a few drops at a time, until thick and creamy.
- Pick up and roll in a ball between your fingers. What happens when you stop?

Soapy Sludgy Slime

Grab some soap flakes (approx. 1cup) and dissolve in boiling water (approx. 3cups). Leave overnight to cool. In the morning, allow children to investigate. How does it feel, look, smell? Encourage them to get their hands in and really mix it up. How does it change in texture?

Homemade Ice-Cream

- 2 zip lock bags (1 large, 1 small)
- 1 tbs sugar
- ½ cup cream
- ¼ tsp vanilla extract
- 6 tablespoons rock salt
- Ice to half fill large bag

Put sugar, cream and vanilla in small bag. Put ice and salt in large bag. Close small bag securely. Place in large bag. Seal and shake for 5 minutes.

Energy Breakthrough Maryborough 2020

Although it's been a few years, BUPS used to take part in the Innovations in Design during the Maryborough Energy Breakthrough. If there is interest, we could look into competing again. Have a look at the challenge. It could be a great family project at the least.
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