

Springvale Primary

Ideas for the Easter holidays...

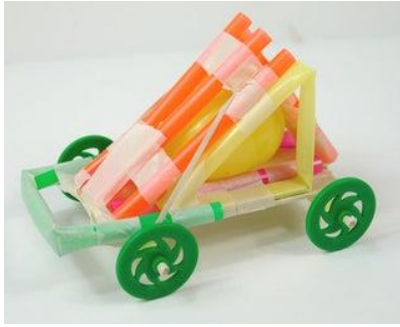
- Create your own Easter sports day with an egg and spoon race, bunny hopping, obstacle race and hide and seek around the house / garden
- Hard boil eggs and decorate them with paint, glitter etc



- Use your hard boiled eggs to have an egg rolling race with your family. Can you measure how far they roll? Can you make ramps to make them roll further? What happens?
- Challenge your family to create the highest tower to balance an egg (outdoors for the more daring with an egg that hasn't been boiled!)



- Challenge your family to design and make an Egg Crash Test dummy! Turn an egg (or a ball) into the racing driver and see if you can safely get it round your own course. Maybe add a jump too?



- Look for signs of Spring outdoors and draw / paint Spring flowers.
You could use hand prints or make a 3D one using card.

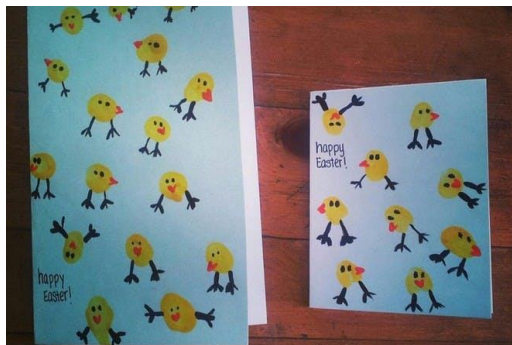


- Measure the flowers in the garden – which is the tallest / shortest?
- Use a paper plate to get making...

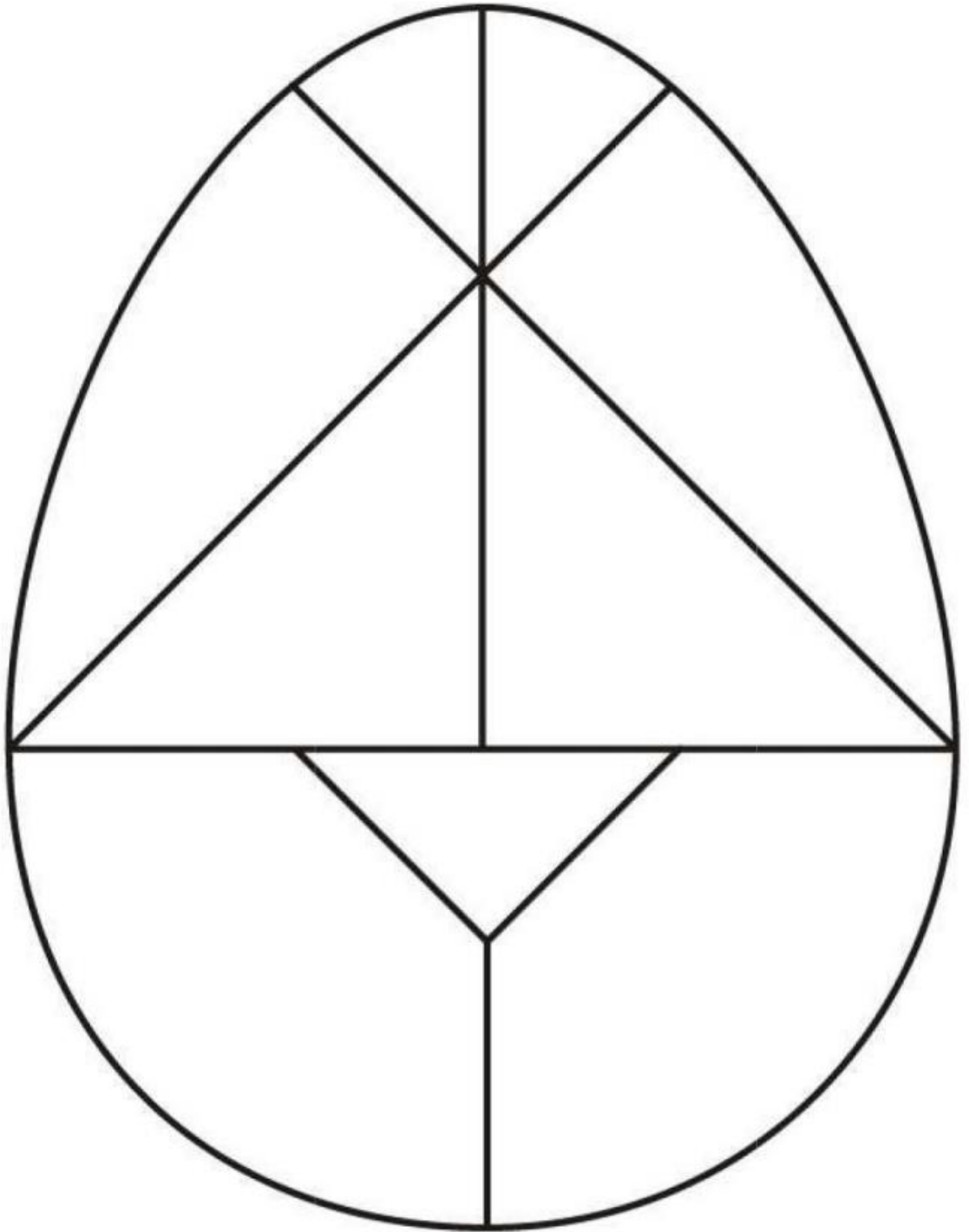




- Make an Easter card and post it to a friend or relative (the first one is finger prints!)

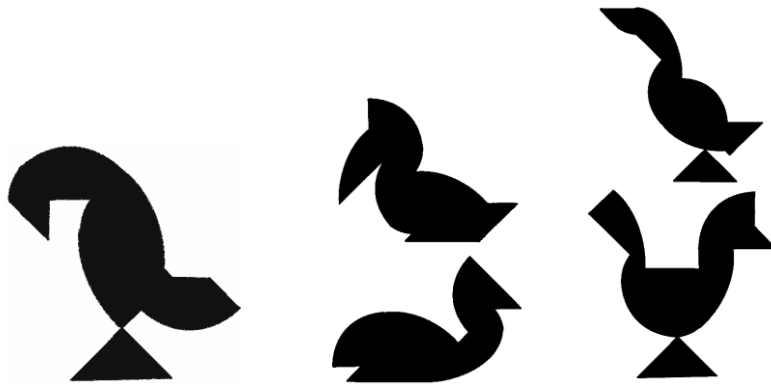


- Challenge your brain with this Easter egg Tangram...



Cut out the pieces and try making the birds shown. There are lots more birds to make, so invent your own!

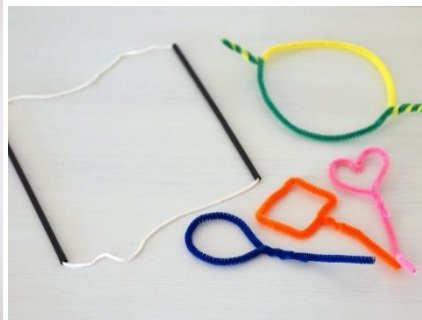
When you have finished, can you put the egg back together again without looking at this image?



- Watch the film 'Hop' and review it!
- Bake some Easter biscuits and Easter buns



- Can you create your own Easter bubble wands?



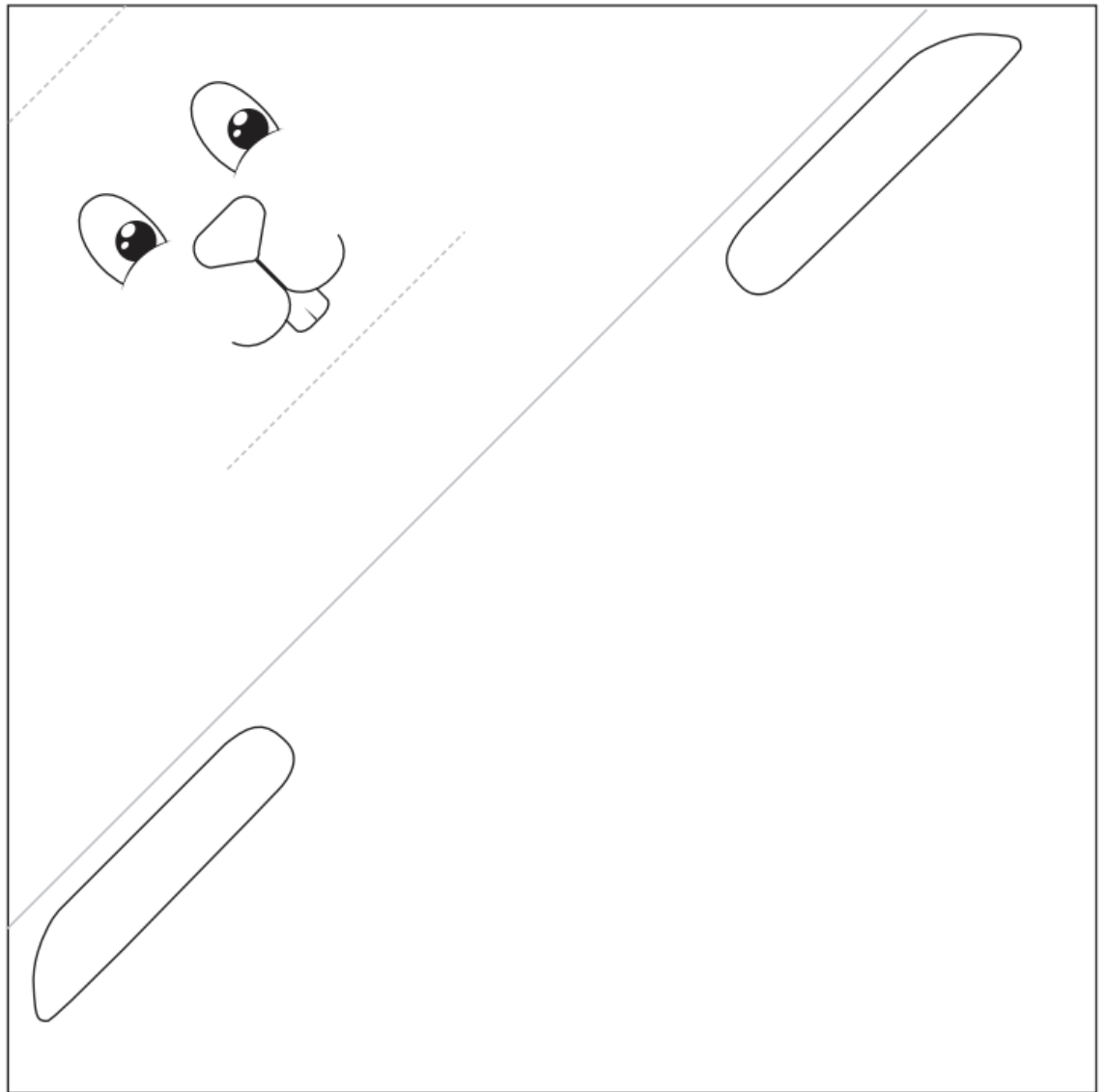
- Create your own egg catapult!



- Can you make these Origami bunnies?

1. Print out and colour the template first.





2. Fold the square paper in half, the bunny face and ears have to be on one side.
3. There is a dashed line along the bunny ears. Fold along that line. Crease.
4. Gently fold the triangle in half again, pinch at the bottom.
5. We do this only to mark where the middle is, as it will make the folding a bit easier
6. Unfold. Position the bunny face down.
7. Take one side of the triangle (ear) and fold it towards the top (the middle we marked in the previous step will be helpful here).
8. Do the same with the other side.

9. Crease.

10. Flip around – with bunny face looking straight at you.

11. You will notice a dashed line at the bottom of the bunny face. Fold along that line (fold it backwards)

12. There is another dashed line at the top of the bunny face.

13. Fold along that line too, again folding it backwards

Your origami bunny is all done!



Reversing Arrows

You will need:

- Glass
- Paper
- Pen
- Water



1. Draw an arrow on a piece of paper and prop it up against something so it stands. Make sure you pay attention to the direction the arrow is pointing!
2. Put an empty, transparent (see-through) glass in front of the arrow.
3. Fill the glass with water and watch what happens to the direction of the arrow!

Does it still work with different sizes and shapes of glass?

Try writing backwards messages to reveal as you fill the glass!

THE SCIENCE

This concept is called *refraction* which means the bending of light as it passes from one 'medium' to another. During the experiment, the light travelled from the image, through the air, into the glass and water, then out of the glass and into the air once more before it reached our eyes. This means that the light bends once when it travelled through the glass into the water, and then it bends again when it travelled out of the glass and into the air. As a result, the light paths cross and the image appears to be flipped horizontally (left/right).

Unpoppable Balloon

You will need:

- Balloon
- Skewer
- Oil or liquid soap



THE SCIENCE

Think back to the polymers in the Leakproof Bag activity.

The balloon is made of a similar polymer which contains molecules attached in long, flexible chains. Blowing up the balloon stretches these strands of polymer chains. At either end of the balloon, the rubber molecules are under the least amount of stress or strain so they are flexible enough to push apart by the skewer. The polymer chains at any other part of the balloon are under too much strain to be pushed apart without breaking.

1. Inflate the balloon until it's nearly full size and then let about one-third of the air out.
2. Tie a knot in the end of the balloon.
3. Look at the balloon – there's a thick area of rubber at both ends of it (where you tied the knot and at the opposite end).
4. Coat the wooden skewer with a few drops of vegetable oil or dish soap.
5. Push the skewer through the thicker area of rubber at each end of the balloon – your family and friends will be amazed with your magic!

How full can you blow the balloon and still get the skewer through?

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Balloon Rockets

You will need:

- Balloon (round ones work but the longer ones are best)
- String
- Straw
- Tape
- Clothes peg



1. Tie one end of a piece of string to a chair, door handle etc. or have someone hold the end.
2. Put the other end of the string through a straw and pull the string tight.
3. Inflate the balloon, twist the end and secure it with a clothes peg.
4. Use tape to attach the balloon under the straw.
5. Release the peg to launch your rocket!

THE SCIENCE

The rocket moves by something called thrust. As the air rushes out of the balloon, it creates a forward motion called thrust. Thrust is a pushing force created by energy. This thrust comes from the energy of the balloon forcing the air out. Different sizes and shapes of balloon will create more or less thrust. In a real rocket, thrust is created by the force of burning rocket fuel as it blasts from the rocket's engine – as the engines blast down, the rocket goes up.

Mark on the string with pen where your balloon ends and try to beat it.

Why not set up two and have a race?

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The Leakproof Bag

You will need:

- Sharpened pencils or skewers
- A sealable bag
- Water

1. Make sure your pencils are sharp before you begin.
2. Fill three quarters of your bag with water and seal it.
3. Holding the top of the bag with one hand, use the other hand to push a pencil right through to the other side. Like magic, there are no leaks!
4. Repeat with several pencils – making sure they are pushed through in different places on the bag.

Test how many pencils your bag can hold!

Do pencils with flat or round edges work best?

Try different thicknesses of bag to see which works best.



THE SCIENCE

The Science for this one is quite complicated! The bag is made out of a polymer which has lots of molecules attached together in long chains (think strands of cooked spaghetti!). The tip of the pencil can easily push apart the flexible strands of spaghetti but the strands' flexible property helps to form a temporary seal against the edge of the pencil. When the pencil is removed, the hole in the plastic bag remains because the molecules were pushed aside permanently and the water leaks out.

Invisible Ink

You will need:

- Lemon juice
- Cotton bud or a paint brush
- Cup
- Paper
- Candle



1. Add about 1 tablespoon of lemon juice to the cup. Fresh squeezed or bottled juice will work just fine.
2. Soak the cotton bud or paint brush in lemon juice and use it to write a message on your paper.
3. Once it is dry, it will be invisible.
4. CAREFULLY hold your paper over a lit candle to reveal your message – try not to set fire to the paper. Get an adult to help you and make sure you have a bowl of water next to you just in case!

You can also “iron” your paper but don’t use the steam setting. Put a dry cloth between the paper and iron to protect the iron’s surface.

THE SCIENCE

The paper discolours before the rest of the paper gets hot enough to do so. Lemon juice contains carbon compounds which are colourless at room temperature. Heat breaks down these compounds and releases the carbon. When carbon comes in contact with air (specifically oxygen), oxidation occurs and the substance turns light or dark brown.

Try different fruit juices – or milk! – and compare the results.

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How to Grow a Rainbow

You will need:

- Kitchen roll/paper towel
- Felt tip pens
- Two small bowls of water
- Paper clip
- Thread



1. Cut your kitchen roll into the shape of a rainbow.
2. Colour a rainbow with felt tips about 2 cm up on both sides.
3. Attach your paper clip to the top and tie a piece of thread to it. This will give you something to hold your rainbow with.
4. Fill each small container with water.
5. Hold your rainbow with the ends slightly submerged in the water then watch your rainbow grow!



THE SCIENCE

A brief introduction to 'capillary action'! Water molecules like to stick to things - including themselves. Sticking to things is called *adhesion* and sticking to itself is called *cohesion*. The fibres in kitchen roll make lots of little holes. Water is 'sucked' through the holes because of adhesion (liking to stick to other things) and cohesion (liking to stick to itself) means the rest of the water follows. The water pressure will eventually slow down and the pressure of gravity will mean it stops moving.

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