Let's Make a KALEIDOSCOPE

The **kaleidoscope** was invented in **1816** by mathematician and **physicist** Sir David **Brewster**.

What is a Kaleidoscope?

A kaleidoscope uses light and mirrors to reflect objects and create beautiful, intricate repeating patterns. There are many different types of kaleidoscopes, but all use the same basic laws of physics, manipulating light and reflection.

The first kaleidoscope

was a tube containing loose pieces of coloured glass with mirrors or glass lenses set at angles inside the tube to create patterns when you looked through the end of the tube.

In this activity we will learn how to make a colourful kaleidoscope that really works!

What is in your pack

◎ a cardboard roll
◎ coloured paper
◎ circle template on white card (4 inches in diameter)
◎ rectangle template on mirrored card
◎ a paper straw
◎ a silver split pin.

What you need to find from home

◎ textas, crayons, pencils or paints
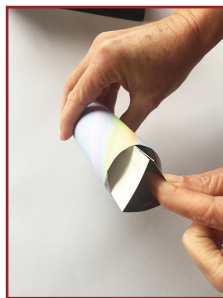◎ scissors
◎ sticky tape.

How do I make it?

1. Cut out the rectangle of coloured card and cover your cardboard roll and secure with sticky tape.

2. Cut the mirrored card to length and tape together in a triangle (make sure the mirrored side is facing inward).

3. Slip the mirrored card into the tube.

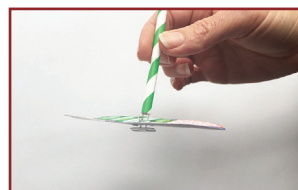4. Cut out the circle template with scissors.

5. Make a hole in the centre of the circle with the silver split pin.

6. Decorate your circle on one side with your textas (remember to create lots of beautiful, colourful patterns).

7. Put the tip of the silver split pin through the centre hole in the circle (non coloured side) and connect into the straw.

Tip - open the sides of the silver split pin before putting in the straw.

8. Tape the straw on to the side of the cardbord roll.

9. Cut the straw so that it is the same length as the tube.

Look through the open end and turn the circle! What do you see?