

WONDER ZONE CRAFTS AND EXPERIMENTS

Day 2 The Wonders of the Universe

Experiment

Whirlpool effect

How to create your own universe in a tub of water

You will need:

A large round tub or bowl

Peppercorns (or coriander or spice that can be crushed)

Crush the peppercorns coarsely and set aside. Fill the tub or bowl with water.

Use a paddle or a large wooden spoon to stir the water around the tub to create a kind of whirlpool.

Throw a handful of coarse ground pepper into the water and watch as the spin of the water sends the pepper from the outside to the centre of the tub.

You may need to give the water another stir to keep the rotation going.

The scientific explanation

This mini-whirlpool shows something of how the solar system, the Earth, our sun, and neighbouring planets might have been formed. As the sun grew in mass, gas, rock and ice started to swirl around it as in a giant whirlpool, the gravity pulling more material towards the centre. So, the stars and planets eventually found their place around the biggest object the sun.

Crafts

Choose which activity you would like to do.

Space and Stars painting or collage

What you need

Large sheet of paper

Crayons (candles could be used if you have no crayons)

Black or dark blue poster paint

A paintbrush

Draw a starry scene using crayons or candles and colouring then in. You can draw anything you might see in space, such as planets, stars, comets or spaceships. Then paint over your picture with dark blue or black paint. The crayon or candle drawings should repel the paint and so show through to create a beautiful night sky.

If you prefer to make a collage you can draw and cut out shapes of planets, stars, comets and spaceships from coloured and sparkly paper and glue on to black paper to make a night sky.

Star shaped biscuits

What you need

115g (4ozs) butter

115g (4ozs) caster sugar

1 egg (beaten)

230g plain flour (sieved)

a few drops of vanilla essence

a greased baking tray

icing sugar and cake decorations

Heat the oven to 170 degrees. Cream together butter and sugar. Stir in the beaten egg a little at a time. Add the vanilla essence and the gradually add the flour to make a stiff dough. Knead lightly and roll out to about ½cm thick on a floured board. Cut out star shapes and place on greased baking tray. If you don't have a star cutter, make a star template and cut round it. Bake for 15-20 minutes. Take out of oven and leave to cool before decorating with icing and cake decorations.