

## Teacher-led activity **MAGIC STAR**

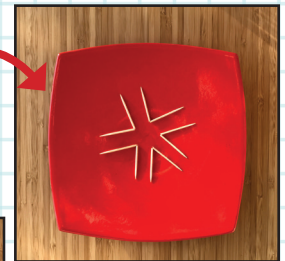


### You will need:

- A plate
- 5 wooden cocktail sticks
- A little water
- A teaspoon

### What you do:

1. Bend the cocktail sticks into right angles and place them on the plate as shown. Tell your audience you can make them into a star shape without touching them!
2. Drop a teaspoon of water into the middle of the plate so that some touches the bend of each cocktail stick.



### What if...

Pupils could try to make a different shape.

### You should find:

The cocktail sticks will move to form a star! The wood of the cocktail sticks contains narrow gaps between its fibres. Capillary action causes the water to travel through these gaps, making the wood swell. This expands the fibres at the bends in the cocktail sticks, forcing them to open out.

## Pupil activity **CRYSTAL DECORATION**

### What you do:

1. Add 6 tablespoons of salt or sugar to half a glass of hot water, stirring until no more sugar or salt will dissolve. You should have a thick syrup with no sugar visible. You can add food colouring if you like.
2. Tie a piece of string to a pencil or stick and place the pencil on top of the glass, so that the string hangs down into the solution.
3. Alternatively, bend a pipe cleaner into a snowflake or star shape and dangle this into the glass.
4. Leave the glass in a warm place away from vibrations.



### You will need:

- A glass
- Sugar or salt
- Water
- A pencil or stick
- String or pipe cleaner

### You should find:

After a few weeks, you will see sugar or salt crystals growing on your decoration. When dissolved sugar or salt molecules bump into crystallised ones stuck on the string, they stick to them. They form regular patterns and the crystals grow and grow. Remember to check on your crystals' growth each week.