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Spinning Snake


Stem Activities




Ages: 3-5



Less than 30 minutes



Growup needed



Spark children's scientific curiosity with a spinning snake! This 'magical' experiment helps children explore the fascinating science of surface tension.

### Materials Needed

Origami paper  
Washing-up liquid  
Marker pen  
Pencil  
Scissors  
Water  
Plate



### Step-by-step tutorial

#### Step 1

Draw a coiled snake on the coloured paper using a pencil.



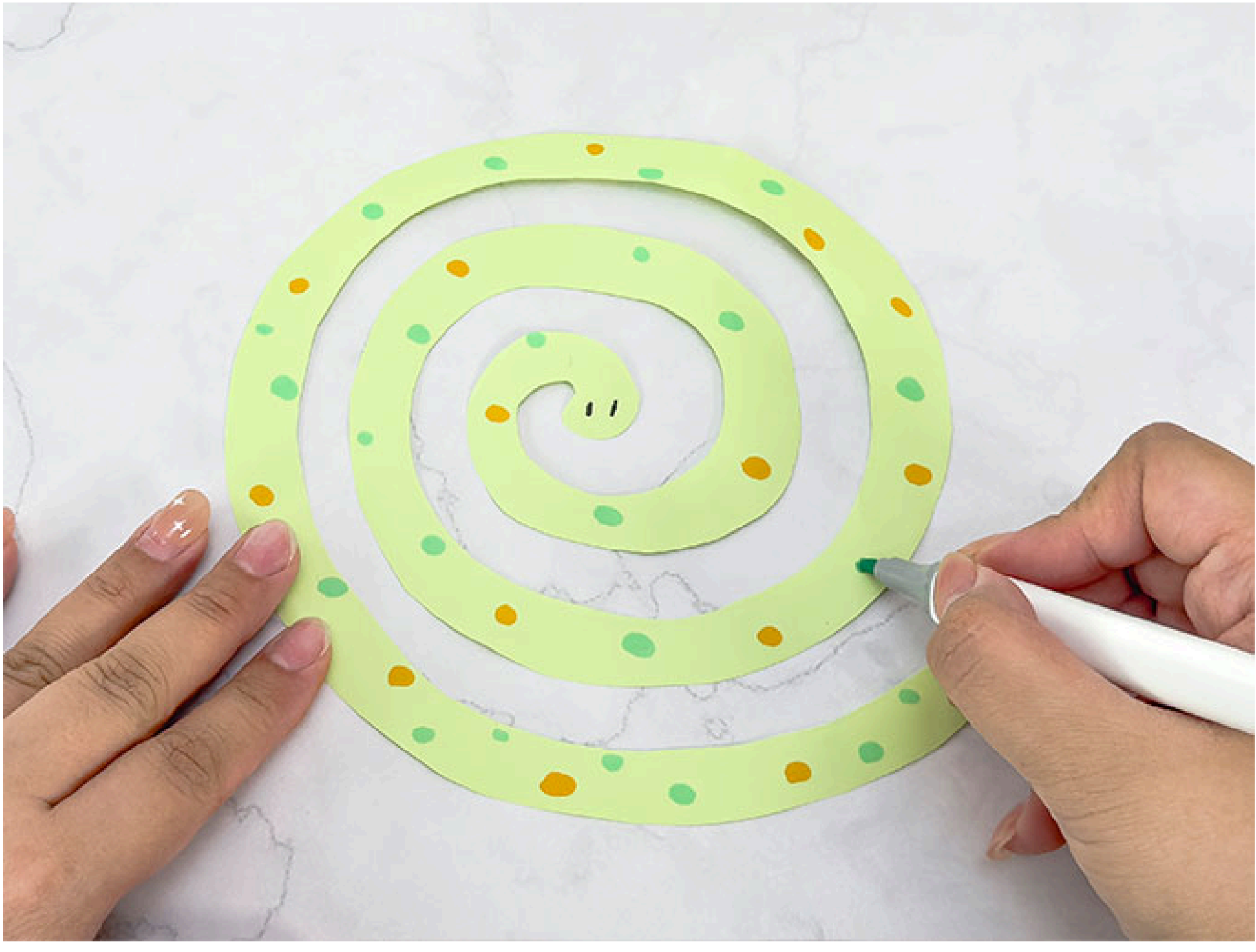
#### Step 2

Carefully cut out the snake using scissors.



#### Step 3

Use the marker pen to draw eyes and patterns on the snake.



#### Step 4

Pour a cup of water into the plate.



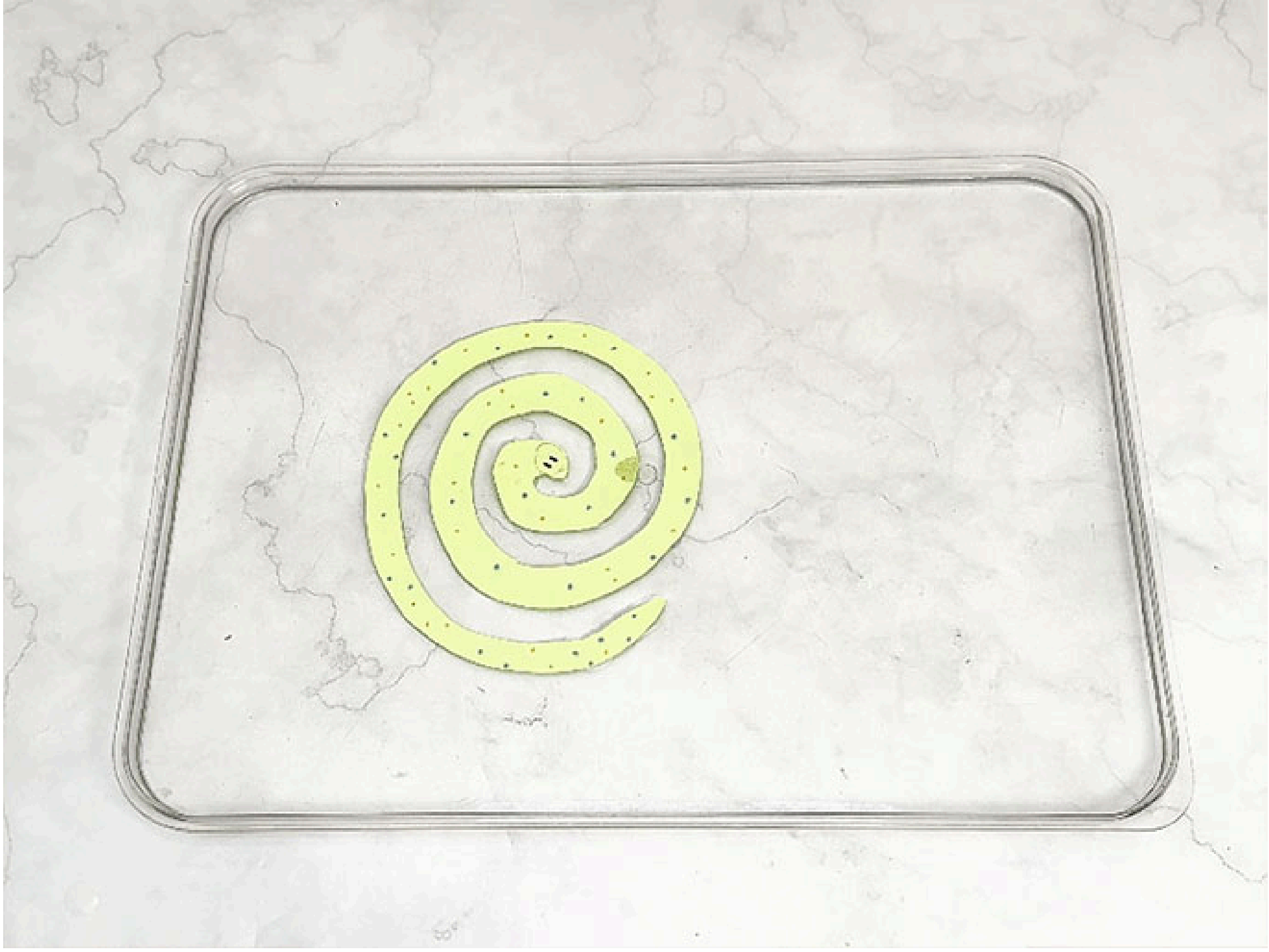
#### Step 5

Apply one drop of washing-up liquid to the back of the snake's head, being careful not to get any on the snake's body.



#### Step 6

Place the snake in the water with the washing-up liquid side touching the water surface. Watch carefully as your snake magically begins to spin.



**The Science Behind It:**  
The secret of the spinning snake lies in 'surface tension differences'. Water's surface tension keeps water molecules tightly bound together, like an 'invisible film'. When washing-up liquid enters the water, it breaks the surface tension, creating a force that moves from high to low tension. The coiled snake, experiencing uneven forces, rapidly spins on the water's surface.