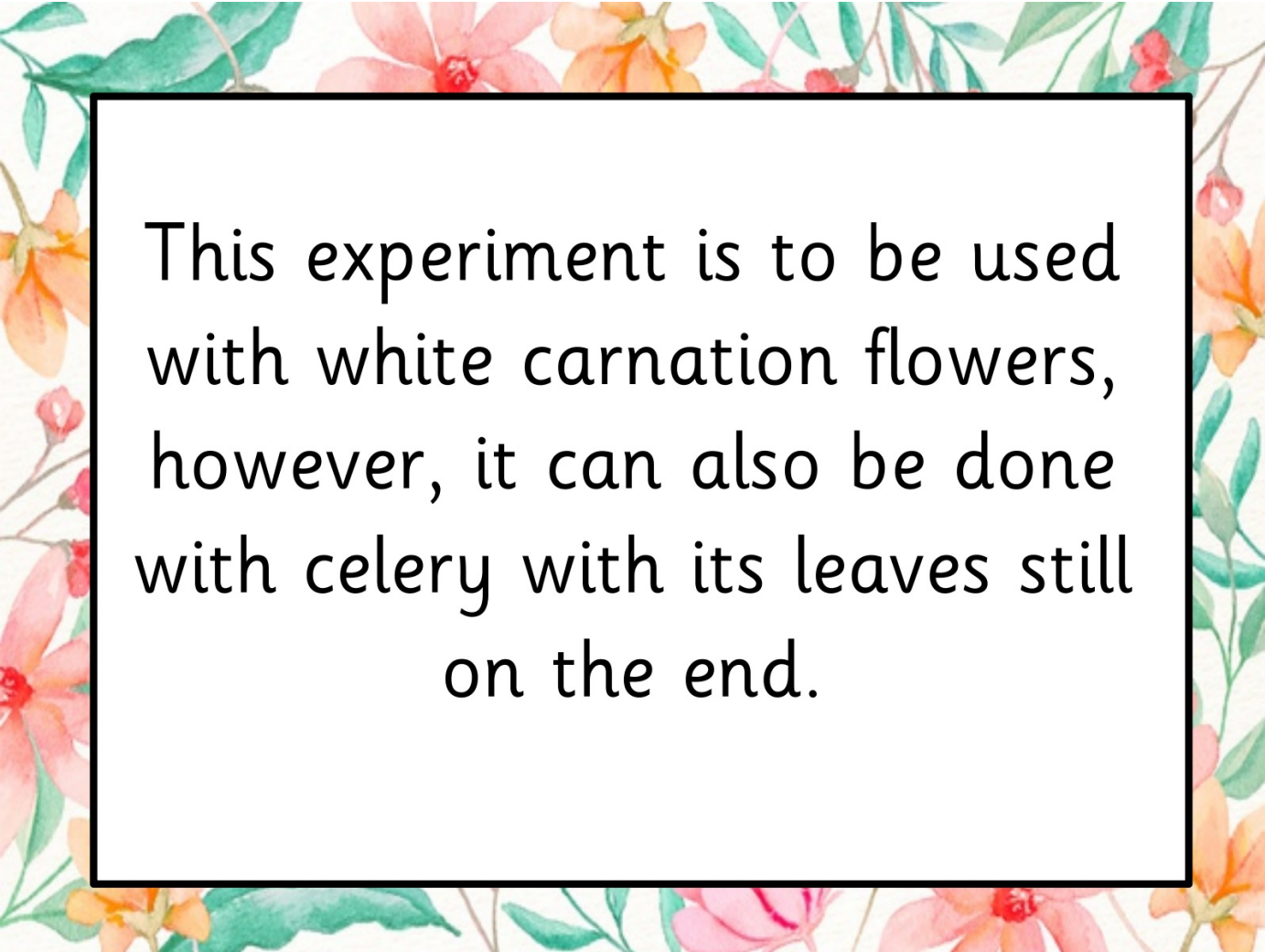


Creating a Buzz



I can identify several parts (roots, stem, leaves and flowers) of flowering plants.		
I can describe the functions of several parts (roots, stem, leaves and flowers) of flowering plants.		
I have explored four key requirements for plant life and growth.		
I have explored how the four key requirements for plant life and growth vary from plant to plant.		
I have investigated the way in which water is transported within plants.		
I have explored the role that flowers have in the lifecycle of flowering plants, including in pollination, seed formation and seed dispersal.		
Working scientifically: I have set up practical enquires to answer questions such as <i>What happens to plant growth when there is no light?</i>		
Working scientifically: I can observe and measure plant growth using equipment such as cameras and tape measures.		
Working scientifically: I can gather and present data in a variety of ways to help answer questions.		
Working scientifically: I can suggest improvements and further questions once I have completed an investigation.		

A decorative border featuring watercolor-style illustrations of various flowers in shades of pink, orange, and red, interspersed with green leaves and stems. The border frames a central white rectangular area containing text.

This experiment is to be used with white carnation flowers, however, it can also be done with celery with its leaves still on the end.

Colourful Flowers

Science Experiment



Colourful Flowers Science Experiment

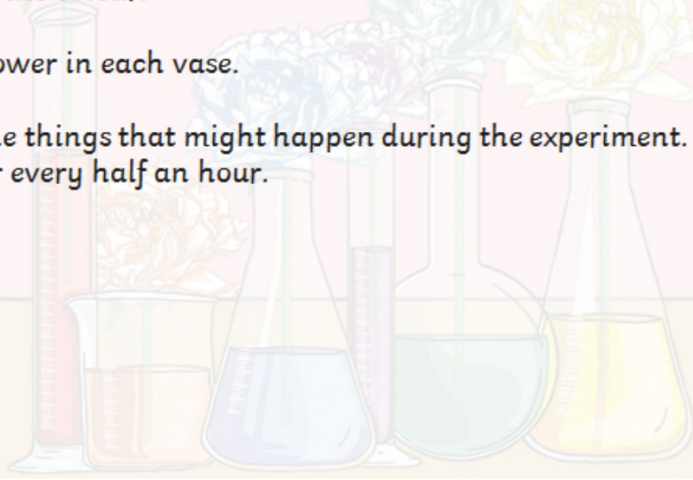
You Will Need:

- Four white flowers with stems such as carnations or four stalks of pale celery with leaves
- Water at room temperature
- Coloured food dyes
- Four vases, jars or glasses
- Scissors
- Spoon



Method

1. Cut the flowers or celery to have short stems. The shorter the stem, the quicker the results will be seen. It is best to cut the stems on an angle.
2. Add water and a generous amount of food dye to each vase. Stir to distribute the colour.
3. Place a flower in each vase.
4. Discuss the things that might happen during the experiment. Observe the flower every half an hour.



Observations

What did you notice after 30 minutes?
Use your senses!

Look at...

...the petals or leaves of the plant.
...the base of the stem or stalk.

Smell...

...the flowers or celery.

Touch...

...gently feel the flowers or leaves of the plant.

Record Your Observations

Compare your predictions and observations with a partner and report back to the class.

Observations

Use your senses.

What did you notice after 60 minutes?

Look at...

- ...the petals or leaves of the plant.
- ...the base of the stem or stalk.

Smell...

- ...the flowers or celery.

Touch...

- ...gently feel the flowers or leaves of the plant.

Record Your Observations

Do you think there will be anymore changes to your flowers?
Leave them overnight or longer to find out!

What's Happening?

This process is called 'capillary action'. This is when plants suck water up through their stem to feed their cells and make them grow. It is like the water is flowing upwards against gravity.

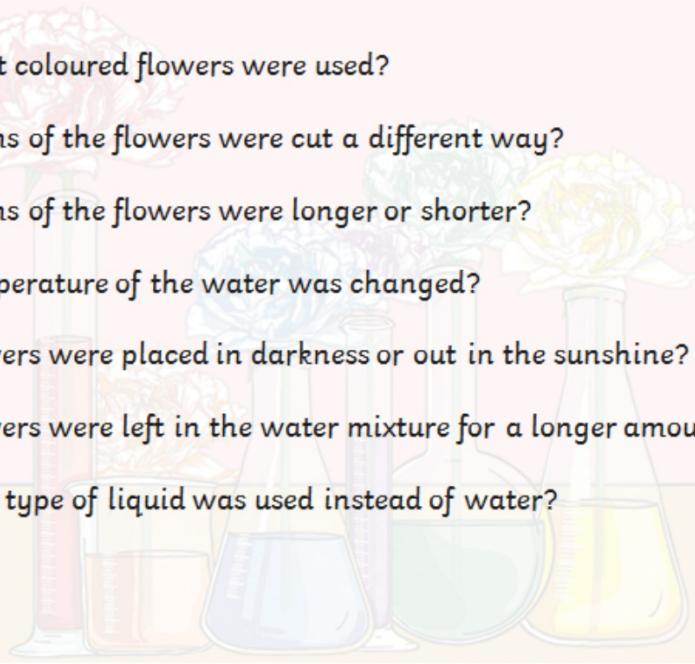
Water leaves the plant through small holes (pores) in a leaf or petal. As each molecule leaves, it pulls the next one up, a bit like an escalator.

The water is coloured so the petals of the flower end up coloured too.



What Would Happen If...

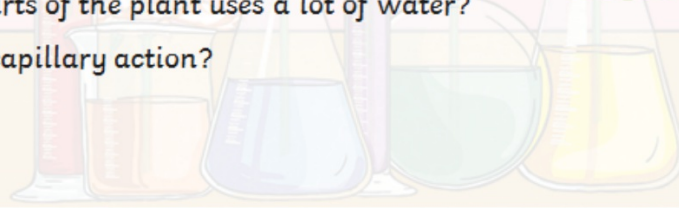
1. ...different coloured flowers were used?
2. ...the stems of the flowers were cut a different way?
3. ...the stems of the flowers were longer or shorter?
4. ...the temperature of the water was changed?
5. ...the flowers were placed in darkness or out in the sunshine?
6. ...the flowers were left in the water mixture for a longer amount of time?
7. ...another type of liquid was used instead of water?



Questions for Reflection

How Would You Answer?

- How do you think rainbow roses are made?
- What would be kept the same in this experiment? (e.g. the temperature)
- Why would it be important to keep these things the same?
- What has made the roses change colour?
- Which parts of the plant uses a lot of water?
- What is capillary action?



Colourful Flowers

Science Experiment



Aim: To see the effects of water absorption in flowers.

Method

1. Cut the flowers to have short stems (the shorter the stem, the quicker the results will be seen). It is best to cut the stems on an angle to give a greater surface area for the coloured water to enter through.
2. Add water and a generous amount of food dye to each vase.
3. Place a flower in each vase.
4. Observe the flower every half an hour or so. In about 30 minutes, some colour will start to show in the petals.

You will need:

white flowers with stems
water
coloured food dyes
short vases or glasses

Teacher tip:

This process is called 'capillary action' and it is when the plant sucks water up through its stem to feed their cells and make them grow. Because the water is coloured, the petals of the flower end up coloured too.

Coloured Flowers Daily Observation Chart

Start	After 30 Minutes
Draw a picture of what it looks like.	Draw a picture of what it looks like now.
<hr/> <hr/> <hr/> <hr/> <hr/>	<hr/> <hr/> <hr/> <hr/> <hr/>

After 60 Minutes
Draw a picture of what it looks like now.
<hr/> <hr/> <hr/> <hr/> <hr/>

Remember:
-Look
-Smell
-Touch

Write a couple of sentences at each stage explaining what you can see.

Why do you think that is?