

ROLE PLAY: THE LIFECYCLE OF FLOWERING PLANTS

Timing: 20 minutes

Organisation: whole class activity

Learning Outcomes:

- That plants need water, soil, light and air to grow
- To produce seeds flowers need to be pollinated
- Some flowering plants are pollinated by insects such as bumblebees
- Using listening skills
- Working together

Resources

Different coloured hats consisting of

1 water (blue) hat

1 light (yellow) hat

1 soil (brown) hat

1 air (white) hat

1 bumblebee (black, yellow & red) hat

30 seed (green) hats

Sets of blue, yellow, brown, white and red cards (one for each child in the class minus 5)

You can make your own hats using long strips of coloured card made into a circle to fit around the child's head.

Setting the Scene

- Gather the class together in a good amount of space.
- Recap that plants need light, water, soil and air to help them grow. Recap how flowers are pollinated so the plant can produce new seeds.

Activity

- Select five children.
 - Give one child the blue hat and the set of blue cards. Explain they are the rain and the blue cards are water.
 - Give one child the yellow hat and set of yellow cards. Explain they are the sun and the yellow cards are light.
 - Give one child the brown hat and set of brown cards. Explain they are the earth and the brown cards are soil
 - Give one child the white hat and set of white cards. Explain they are the wind and that the white cards are air.
 - Give one child the black, yellow and red hat and set of red cards. Explain they are the bumblebee and the red cards are pollination.
- Give the rest of the class a green hat and an orange card each. Explain they are seeds, waiting to grow, but that they can only grow when they have soil, air, water and light – a brown, white, blue and yellow card as well as the red one they already have. Explain that the red card is pollen that each seed already has in it, just waiting for the flowers to blossom.

- The seeds (children with green hats) crouch down, curled up tightly, waiting to grow.
- Tell this story

Once upon a time, there were many little seeds sat on a hard rock. It was very dark, there was no air and it hadn't rained for a very, very long time. The seeds were sad; they wanted to be beautiful flowers and trees, but they couldn't grow without the sun, the rain, the soil or air. They just had to wait and hope that soon they would be able to grow.

One day, there was a little breath of air and then another.....

- Ask the Wind (child with the white hat and cards) to slowly move amongst the seeds and give each one a white card then return to original place. The Wind and the seeds could make whooshing wind noises.

Before not too long there was a steady stream of fresh air blowing gently over the seeds. They took a huge breath and quivered in the breeze.

- Seeds can quiver and shake gently.

Could the seeds start to grow yet? No! Because there was no soil keep them safe, no water to drink nor light to help them grow

A few days later, the ground started to shake and rumble.....

- Ask the Earth (child with the brown hat and cards) to slowly move amongst the seeds and give each one a brown card, then return to original place

Soil began to fall onto the seeds from the cliff above, covering them like a snugly blanket and making them feel warm and safe. The seeds were happy – but could they start to grow yet? No! Why? Because there was no water to drink nor light to help them grow.

Another day passed. The seeds were still patiently waiting to grow. A drop of rain fell from the sky, followed by another, then another....

- The Rain (child with blue hat and cards) slowly moves through the seeds, giving each one a blue card, then return to original place.

Pretty soon it was raining hard. The seeds were thirsty, they drank up the water and as they drank, they began to swell up, getting bigger and bigger and rounder and rounder.

- The seeds can make themselves bigger by uncurling their arms and making a ball shape.

Could the seeds grow yet? No! Because it was still dark and there was no light to help them grow.

After a while, the rain stopped falling, the clouds parted and the Sun appeared bringing light and warmth....

- The Sun (child with yellow hat and cards) slowly moves amongst the seeds giving out yellow cards.

At last, the seeds could begin to grow. First little roots appeared, then tiny curled shoots. The shoots slowly uncurled and grew tall and straight, reaching up to the sky. The flowers burst from their buds and raised their faces to the warm sun. Their nectaries were full to the brim with nectar and their anthers jam-packed with pollen. Their feet were anchored in the soil and their leaves quivered and swayed in the wind. A meadow of beautiful flowers had grown.

- Once the seeds have a white, brown, blue and yellow card they can start to grow by slowly uncurling their arms, straightening their legs, then slowly uncurling their backs and heads, raising their arms and their heads to the sun, holding their pollen cards high and swaying in the breeze! The sun, soil, rain and wind can move in amongst the flowers.

The sun shone brightly, there was a gentle breeze and a bumblebee gently buzzed from flower to flower looking for sweet, sugary nectar to drink and rich, fattening pollen to eat or collect in her pollen baskets for the baby bumblebee larvae back at the nest. As she flew from flower to flower, some of the pollen she'd collected on her hairy body brushed off on a new flower so it became pollinated.

- The Bumblebee (child with the black, yellow and red hat and red cards) slowly moves amongst the flowers, stopping to collect the orange card and give out the red cards showing how pollen is collected from one flower and given to another.

The petals withered, the flower died back and new seeds were made that fell onto the ground ready to grow the following year.

- Once the children have swapped their pollen cards they can start to shrivel and curl back down into a ball as a new seed.

Conclusion

That plants need light, water, soil and air to grow successfully. That some flowering plants rely on insects, like bumblebees for pollination and to help them produce seeds.