

Objective: For children to hypothesise and make discoveries about plants and discuss the traditions surrounding Mother's Day.

Equipment : 3 cups/glasses (will need to be tall enough to support flower stem length and weight of flower)

3 different food colours (5 drops in smaller glasses, ½ teaspoon in larger glasses, the colours seem more vibrant at faster rate when more colour is used)

water to top up glasses.

A selection of light coloured flowers (white is best, I have found roses, and daisies work very well, however daisies are difficult to multicolour, splitting the stem is the issue).

Sharp knife, box cutter or scalpel.

(The cutting of the flower stems is difficult and dangerous, best done by an adult unless children have highly developed skills and are using thicker stemmed flowers)

Instructions: Let children choose if they would like to use 1, 2 or 3 colours for their flower and the type of flower they would like to colour. Discuss the factors for consideration when making choices: stem length and thickness, what would the person receiving the flower like best, which do they think would be most successful.

Let children (depending on age and developmental stage) set up glasses with food colouring and water mix.

Slice carefully along stem, so that each section of stem can go in colour of choice. (one slice, 2 sections = 2 colours; 2 slices, 3 sections = 3 colours). Let children make choices, remember failure may happen in any experiment, this is a learning process. Allow enough time to repeat if their hypothesis does not work.

What is happening as the colour rises up into the flower?
Document children's thoughts and ideas.

Early Years Learning Framework Outcomes*

Outcome 1: Children

- develop their emerging autonomy and inter-dependence by making choices and testing theories.
- Learn to interact in relation to others and their environment with care, empathy and respect, by gaining understanding of how plants work and thinking of others when creating and choosing gifts.

Outcome 2: Children

- become strong in their social and emotional wellbeing through making choices, accepting challenges and affirming close personal relationships through thoughtful actions.

Outcome 3: Children

- become strong in their social and emotional wellbeing by taking part in a shared group science experiment and through thinking of others.

Outcome 4: Children

- develop dispositions for learning such as curiosity and cooperation, by exploring and learning about plants and flowers.
- develop skills such as problem solving, experimentation and hypothesising through discovery based learning.
- transfer what they have learned in discussions and stories, and use this information to conduct other experiments.

Outcome 5 : Children

- engage with a range of texts about flowers, flowering plants and social customs surrounding Mother's Day; gaining meaning about these texts.
- discuss and document what they can see, hear, touch, smell and experience through experimentation.

Key Learning Areas

Mathematics: Counting and quantity. How many flowers do we need? Are we going to give more than 1 flower? How many colours will we use?
Measurement: How much water and colouring will we need? What length should we make the stems? What size glasses do we need?
Mathematical Language: First, before /after, next, couple, few, many, more/less.

Literacy: Writing- documenting children's thoughts and hypotheses. Vocabulary: Roses, May Bush, plants, flowers, petals, colour names, stems. Reading: books and internet research on plants and Mother's Day.

Social Sciences: Flowers and gardening has a huge cultural and social significance in many cultures. The giving of flowers and which flowers to give at different times also has cultural and traditional significance in many cultures; such as the giving of chrysanthemums on Mother's Day in Australia.

Science and Environment: How plants live and function.

Art: Creating unique living sculptures by adding to nature. Using colour in different ways.

Technology: Using tablets/cameras for documentation of experiments and using internet for research

Extension Ideas

Read books on flowering plants, why do plants have flowers, how do plants get their water and nutrients? Discuss Mother's Day and its origins, use the internet to research topic. Plant some flowering plants that were successful during the experiment (White Roses, Daisies, a May Bush) to prepare for next Mother's Day.