

Experimenting factors needed for plant growth challenge teacher's notes.



Introduction

Before the children are involved in the following activities, they should share and discuss their knowledge of the poppy. Along with children's prior knowledge the following should be discussed:

- It is a flower which grows wild outside.
- It is grown from a seed and produces a red flower.
- It is used to remember people who have been in war or conflicts.
- Plastic replicas are sold in November to raise money for ex-service personnel and their families.
- It became a symbol for wars after it grew in a place called Flanders Fields in Belgium and France once a war had finished.
- It symbolises new life.

Experimenting factors needed for plant growth challenge. (Science)

Discuss with the children what they think plants need in order to grow. Using their ideas set up an experiment to test their ideas, the experiments should include water and sunlight.

Divide the children into small groups and give them a poppy seed to plant into a plant pot each. Discuss instructions for doing this and allow groups to create their own set: e.g. fill pot half-full, place seed on soil and cover with soil then water. Then give each group a factor they will be investigating by not giving it to their seed including:

- Water – give no water but place in sunlight.
- Sunlight – place inside a black bin bag but give water and air.
- Air – place in a black bin bag and seal tight shut, pierce holes in top to let some sunlight in.
- Temperature (cool temp) – place in a very cool place but water each day.

Set up a control experiment and once it sprouts a shoot each group should record what happens to their seed each week in their individual booklets (poppy seed resource P13). After five weeks discuss and record what factors are needed in order for a plant to grow.

The Big Question

What is the significance of the poppy?

Level

First

Experiences and Outcomes

I develop and extend my literacy skills when I have opportunities to communicate, collaborate and build relationships.

LIT OA

When I engage with others, I know when and how to listen, when to talk, how much to say, when to ask questions and how to respond with respect.

LIT 1-02a

I can communicate clearly when engaging with others within and beyond my place of learning, using selected resources¹ as required.

LIT 1-10a

I can convey information, describe events or processes, share my opinions or persuade my reader in different ways.

LIT 1-28a / LIT 1-29a

Learning in the sciences will enable me to:

develop curiosity and understanding of the environment and my place in the living, material and physical world

develop the skills of scientific inquiry and investigation using practical techniques

SCN OA

I can help to design experiments to find out what plants need in order to grow and develop. I can observe and record my findings and from what I have learned I can grow healthy plants in school.

SCN 1-03a

Additional Resources

Experimenting factors needed for plant growth challenge.

Poppy seeds resource P13.

Poppy seeds can be ordered from the Poppyscotland Education website.

www.poppyscotland.org.uk/education