Planting Investigations

Design your own experiments to see what plants need to grow well

Scientific Enquiry



The process of planting is a real-world basis for mathematical applications and scientific investigations even with the youngest of scientists. The basis of this investigation does however lend itself to more advanced enquiries as well about the impact of soil pH or different fertilisers.

To begin, the children will need to cover the **science** of what a plant needs to grow. They will also need to understand how to plant their seed in the soil: filling the pot with soil, dibbing a hole using a lolly stick and measuring its depth before popping the seed in, covering it over and watering it. This can be consolidated with an **instructional writing** activity and would run well with older pupils supporting younger pupils.

Equipment

- Sunflower seeds
- Squared paper and pencils for recording
- Rulers
- Identical plant pots with drainage holes
- Watering can
- Compost and a little sand

5-9

• Sunny, part-shaded and shaded areas

Activity

Identify a plant that you will grow as a class. We would suggest sunflowers. Discuss what a plant requires to grow i.e. soil, nutrients, water, sunshine, carbon dioxide.

Split the children into teams of 3 and allocate each team a variable which they can change over several weeks.

Here are some suggested teams but the children will probably come up with their own:

Does it matter how deep you sow the seed?
seed planted shallow, 1 planted mid-level and
planted deep.

2)Does the type of soil matter?

1 seed planted into ordinary soil, 1 planted in compost, 1 planted in sandy soil.

3)Does the amount of watering matter?

1 seed watered every day, 1 watered every other day, 1 watered once a week.

4)Does the amount of sunshine matter?

1 seed in direct sunshine, 1 seed in a semishaded area and 1 in a heavily shaded area

The children will need to agree as class how they measure the impact of their variable. They could look at which seeds germinate first, or they could measure the seedlings each day and see which are the tallest after a given time.



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