

Experiment: What is the best type of soil for growing happy plants?

Explain to students that they will have the chance to grow wheat seeds in different soil types. Their task is to think about and propose what soil types will be best (e.g. will you go for a mix of soil and compost, or compost and sand). They will need to propose three different soil 'recipes'; they will create two growing tubs for each recipe.

Numeracy: Ask students to represent their soil mix as fractions (e.g. $\frac{1}{4}$ sand, $\frac{3}{4}$ compost).

Materials required:

- 6 small growing tubs
- soil
- sand (sand can help with drainage)
- Compost (or other organic matter)
- water
- wheat seeds
- sunlight
- labels and pens for marking experiments

Instructions:

1. You can use the Student Worksheet to develop an idea for an experiment. What will be different about your different soil recipes? One group might test different amounts of sand, another group might test different amounts of compost, and another group might test different types of organic matter.
2. Fill out the first section in the table, 'Predict'. What do you think will happen?
3. Label each growing tub carefully with the soil recipe that it contains.
4. Fill each tub with the correct soil recipe. Pack the soil down lightly.
5. Plant your wheat seeds according to the instructions on the packet.
6. Set up a watering roster for the plants and place them where they will receive much sunlight.
7. Record your observations. Students could take notes, photographs, or make drawings to record what they see.

Notes: As a class, reflect on the successes and challenges of the experiment - which types of soil 'recipe' appear to be the most suitable for growing happy, healthy wheat?

