

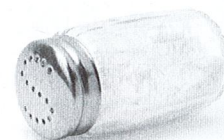
## What do Seeds Need to Allow Them to Grow?

Wheat is a cereal grain which can grow 60–120 cm high. It is an extremely important crop as it is used all over the world to make common foods such as bread, pasta, pastries and many baked goods. Wheat is the most grown food in the world.

Complete questions 1–3 below before undertaking the investigation.

### Materials:

- wheat seeds
- water
- sieve
- paper towel
- 6 clear plastic cups
- small stones or gravel
- potting mix
- water
- salt
- teaspoon



### Method:

1. Soak 6 teaspoons of wheat seeds in water overnight.
2. Drain the water using a sieve and place the seeds on a paper towel.
3. Label each cup A, B, C, D, E and F.
4. Place a shallow layer of gravel or stones in the bottom of each cup.
5. Fill each cup with potting mix or soil until it is approximately 3 cm from the top.
6. Plant 6 to 10 wheat seeds about 2–3 cm deep into the soil.
7. Place the cups in the locations specified below and follow the watering instructions in the table. The seeds should be watered every 2–3 days or when soil is dry.

Cup	Location	Watering instruction
A	On sunny north-facing windowsill	50 mL water
B	On sunny north-facing windowsill	50 mL water mixed with 4 teaspoons of salt
C	On sunny north-facing windowsill	No water
D	In a cool, dark cupboard	50 mL water
E	In a cool, dark cupboard	50 mL water mixed with 4 teaspoons of salt
F	In a cool, dark cupboard	No water

### Prediction

- 1 What do you think will happen to the seeds in each cup?

Cup	Predicted results
A	
B	
C	
D	
E	
F	

### Reliability

To conduct a fair test, all factors must be kept identical except the variable being tested. This ensures that any changes observed are likely to have occurred due to the variation and no other factor.

- 2 How will you ensure a fair test?

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