

# Edexcel Biology IGCSE

## 3.5: Germination

### Practical notes



## Germination

### Aim

Investigate the conditions - water, oxygen, warm temperature - needed for seed germination.

### Subtitle 2

- 4 boiling tubes
- Cress seeds
- Cotton wool
- Incubator
- Fridge

### Method

1. Set up 4 boiling tubes as per the instructions below:
  - A: dry cotton wool
  - B: moist cotton wool
  - C: boiled and cooled water with a layer of oil on top
  - D: moist cotton wool
2. Place 10 cress seeds in each boiling tube.
3. Place A, B, and C in an incubator, and place D in a fridge.
4. Leave for a week to allow the seeds to germinate.
5. Count the number of seeds in each boiling tube that have germinated. Record in a table as seen below and compare results.

### Controlled variables

- Species of seeds
- Number of seeds
- Time left for germination

Test tube	Factor missing	Number of seeds germinated
A	Lack of water	
B	Control (all factors present)	
C	Oxygen	
D	Warm temperature	

