

Kenton College

Life Cycle of Flowering Plants

Year 8 Lesson 3: Fertilisation in Plants

WC 10th September 2012

Title: Germination

- **WALT: describe the process of germination and what is needed**
- I must be able to state what 'germination' means
- I should be able to explain the conditions that are needed for germination
- I could design an experiment to test some of these

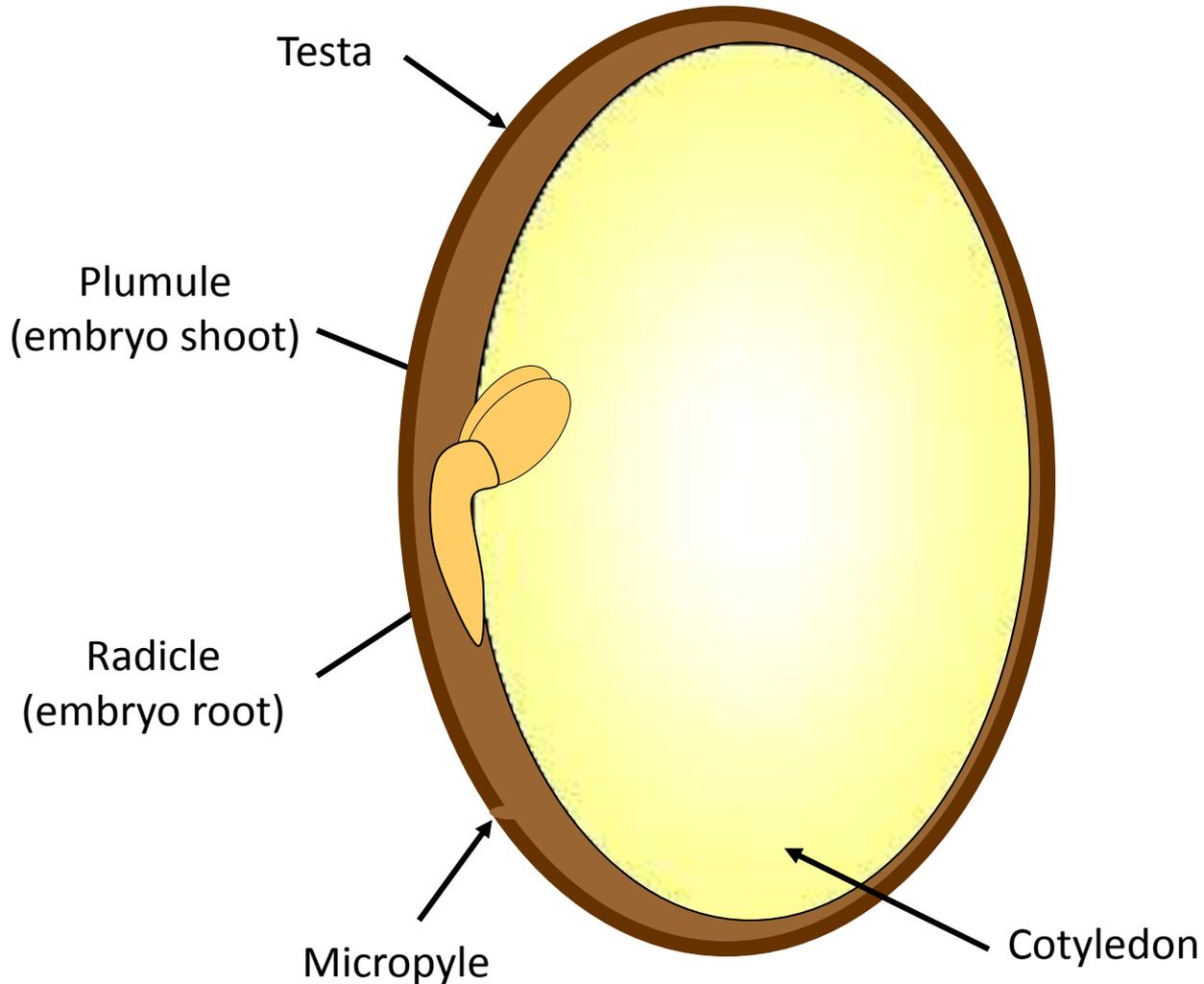
Last lesson we learnt.....

- That seeds have different adaptations for the ways in which they are dispersed.
- Some examples are
- Today we will look at the last stage of the process of plant reproduction....germination

Germination is like birth...the beginnings of a new life



The seed contains the embryo plant and cotyledons (starch stores)

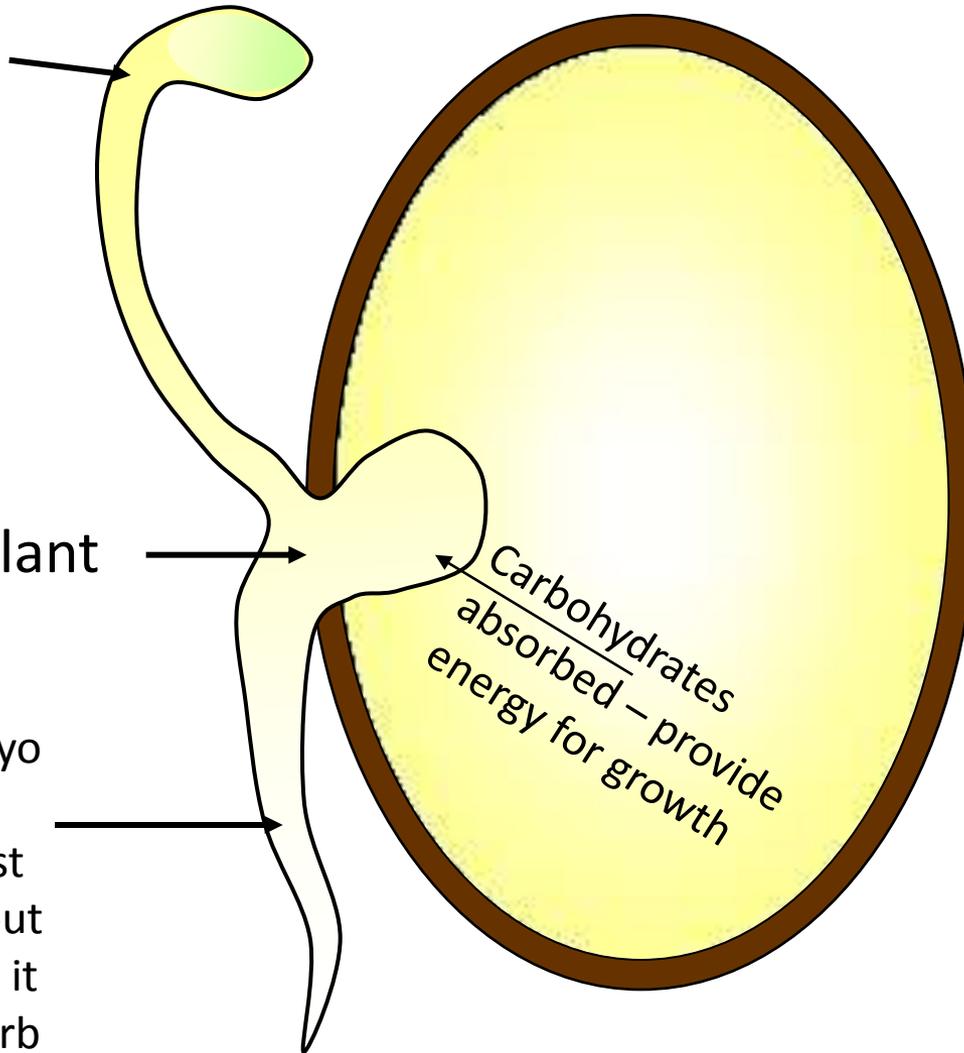


Plumule
(embryo
shoot)

embryo plant

Radicle (embryo
root)

This is the first
part to grow out
of the seed as it
needs to absorb
more water



Carbohydrates
absorbed - provide
energy for growth

Whilst germinating the plant uses food stores in the cotyledon to provide energy for growth

light

The seedling can now photosynthesise and make its own food



germination



Plant growth and development

soil

Spend 5 minutes in rough,
designing an experiment to test for
the effect of the presence of both
oxygen and light on the
germination of cress seeds

We will test for the effect of the presence of light and moisture

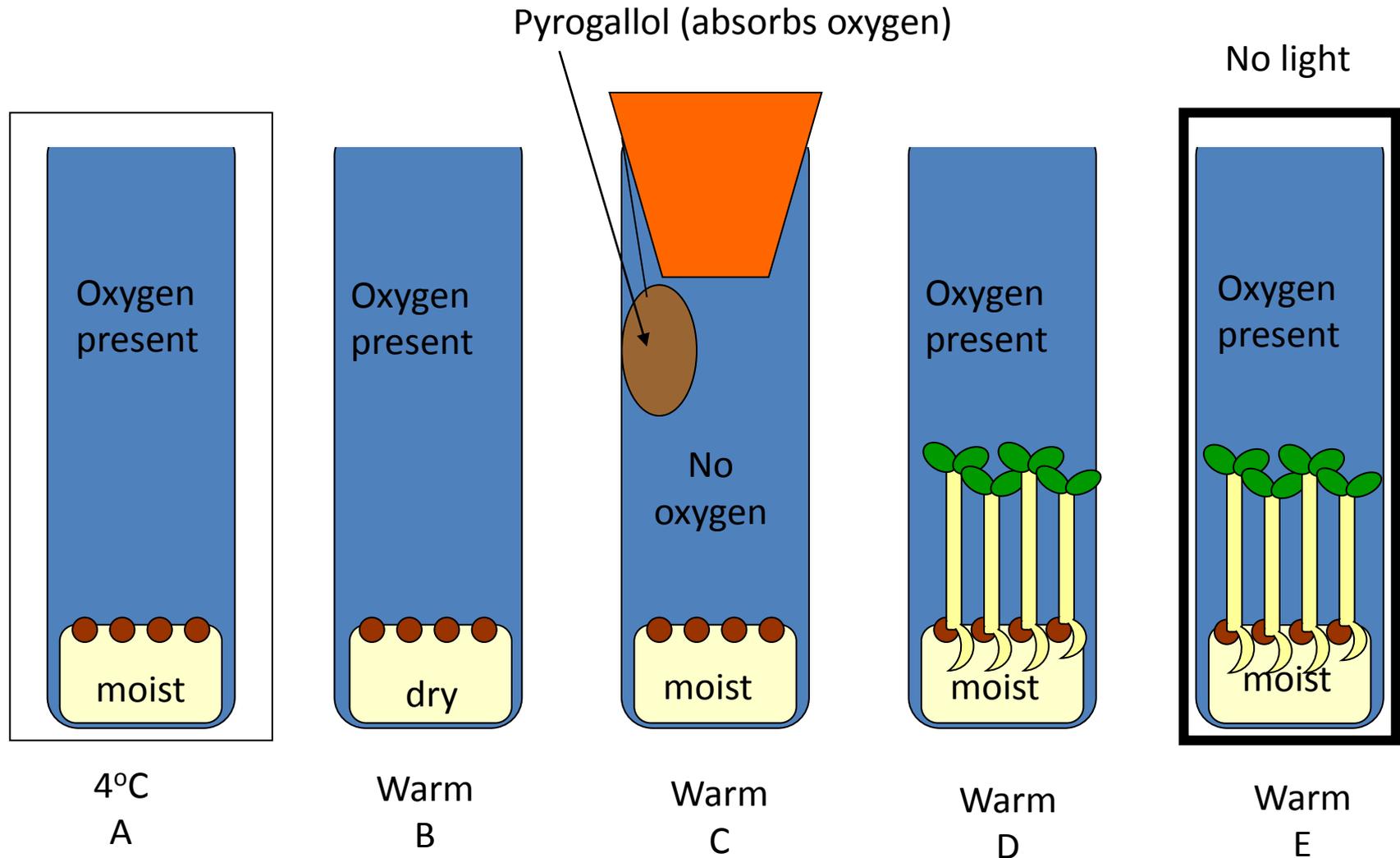
- You will need to add to your 'control' yesterday:
 - 1 without light but moist
 - 1 with light but dry

What do you think is needed for the cress seeds to germinate based on the experiment in the next slide?

- Water
- Oxygen
- Warmth

Conditions required for germination

Summarise the findings of the experiment shown below:



Plenary – 10 minutes for this

- Spend 10 minutes drawing a concept diagram or step-by-step summary of the whole reproduction process in plants