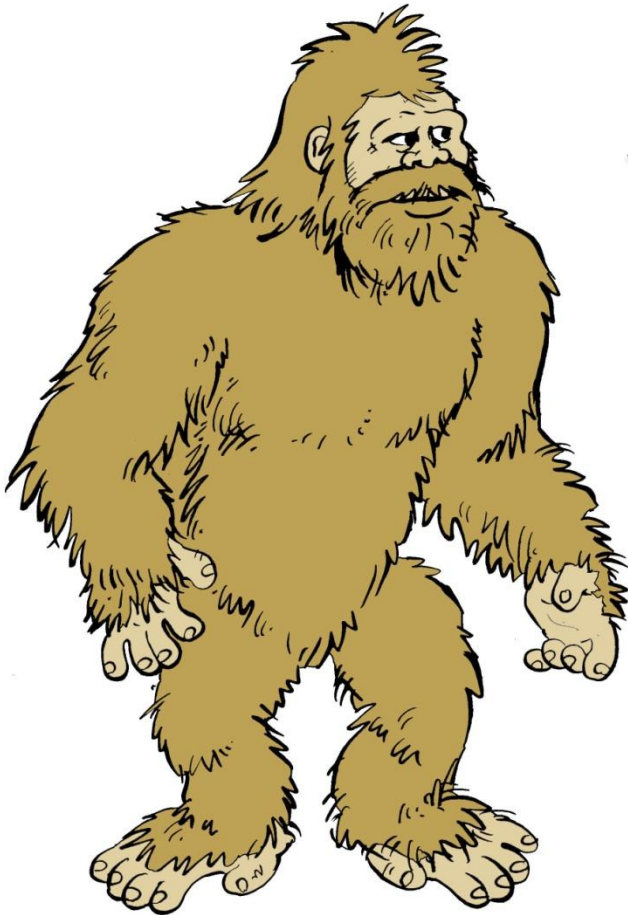


Yr 9 APP – LAT AF 1a

How do plants grow?

AIM

Use simple or abstract models to describe and explain how plants grow.

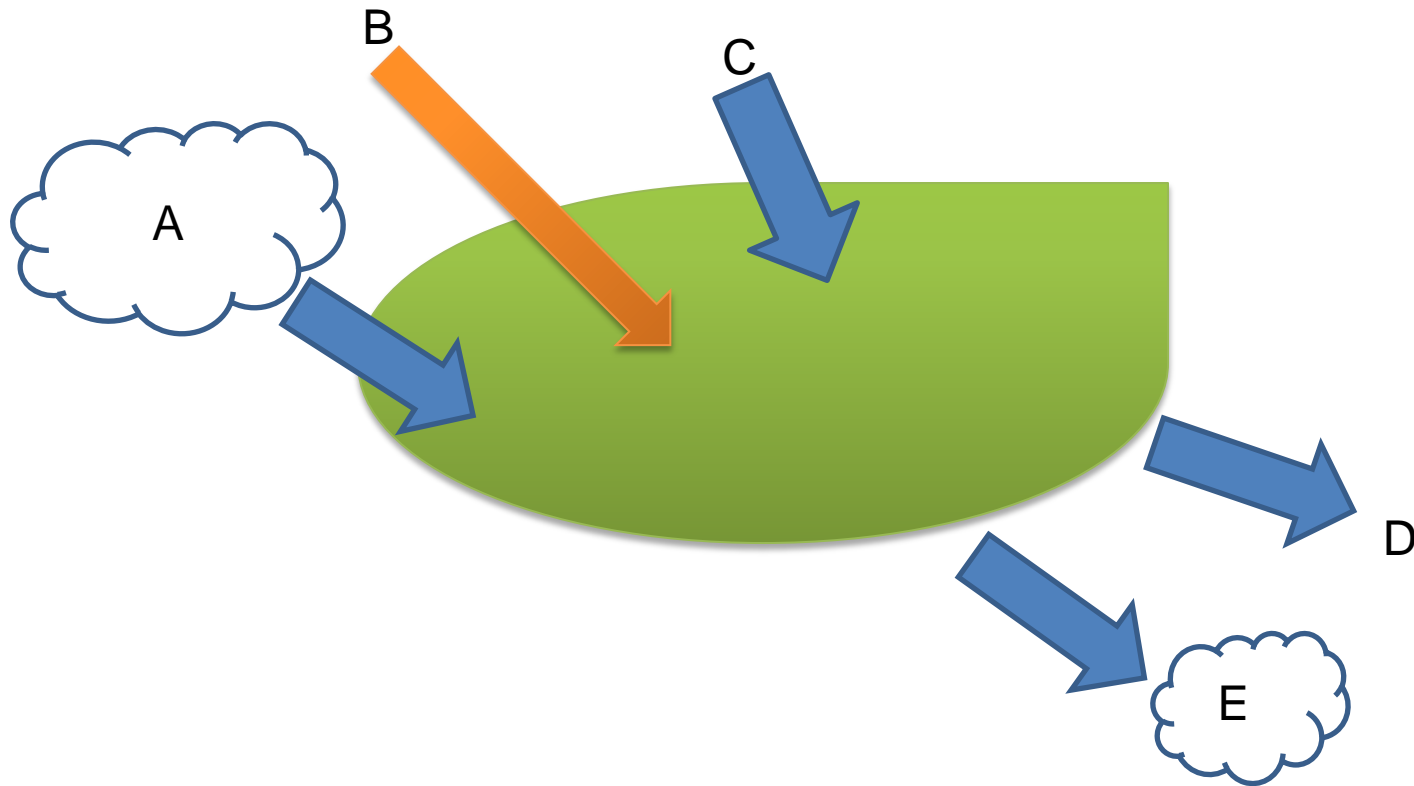


How do plants grow?

Decide who you agree
With and write a short
discussion about each
View and offer your
Decision based on
scientific evidence.



How do plants grow?



This is a model of a leaf doing photosynthesis.

Match the letters to these words:

water, oxygen, carbon dioxide, glucose (sugar), light

How do plants grow?

carbon dioxide + water → glucose + oxygen



This is the word equation for photosynthesis.

Think about what the word equation tells you.

Discuss the strengths and weaknesses of this word equation as a model for photosynthesis

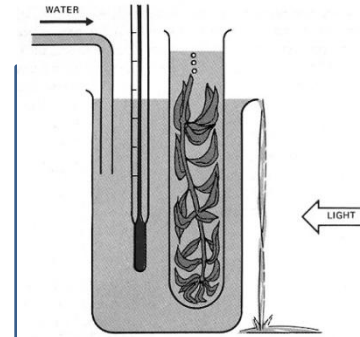
Photosynthesis models through history



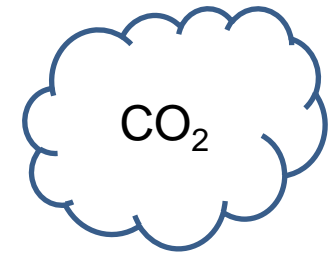
Our early ideas:
Plants feed on soil through their roots



1648: Plants use water to grow
Van Helmont shows that plants do not use soil to grow and suggests they use water



1778 Plants produce oxygen in light
Experiments showed that plants produce oxygen gas.



Late 1700s
Jean Senebier found that plants take in carbon dioxide. He recognised that this must be the source of carbon to grow.

Discuss:

How has our scientific description of photosynthesis has changed? What has caused these changes?

Do scientists know everything about the photosynthesis?