Subject: Science

Level: Standard 2

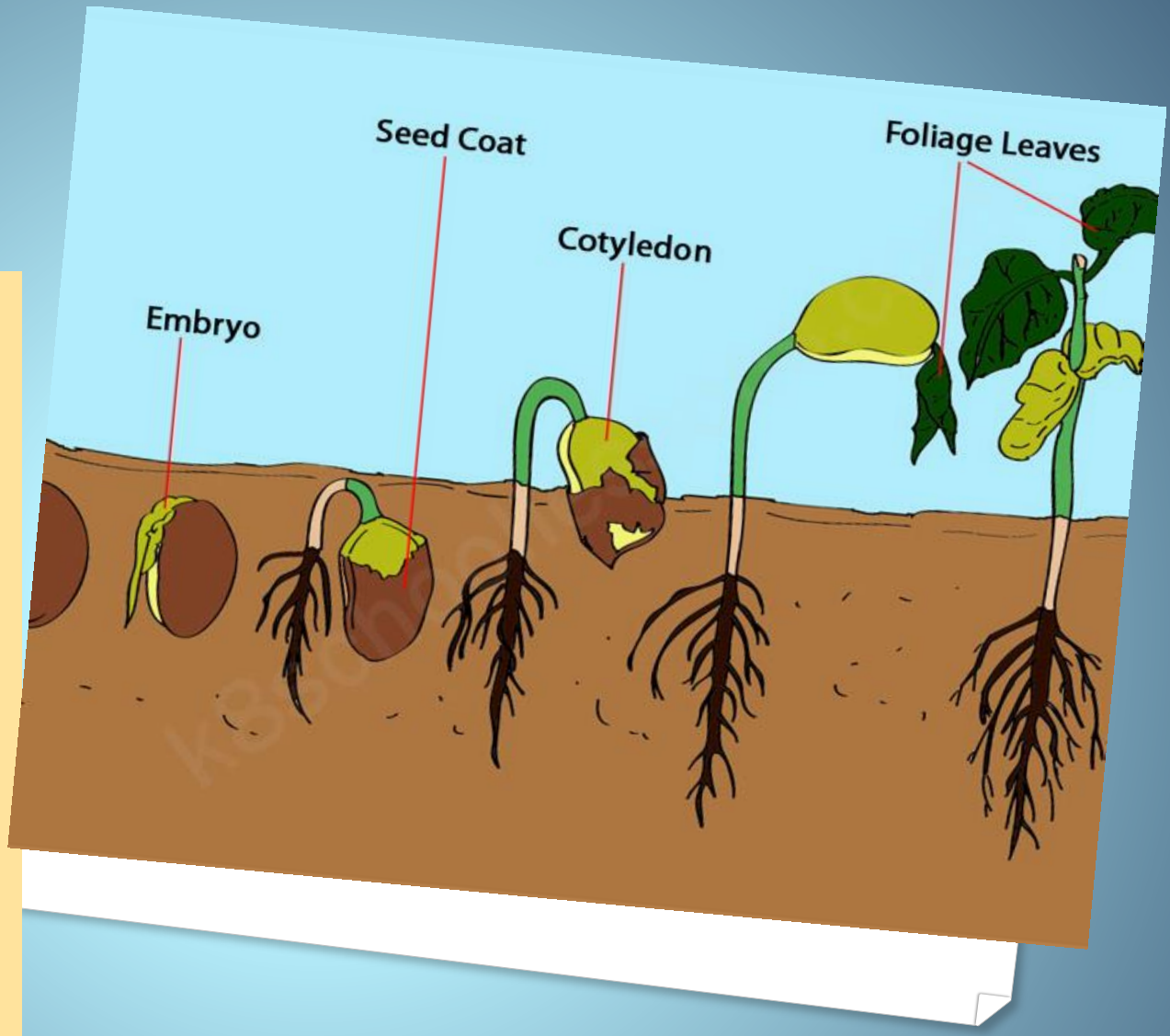
Strand: System and Interaction

Topic: How Plants Grow

Key Points

-Germination is the growth of a plant from a seed.

-Plants need many things to grow



(Picture: Seed Germination ... https://k8schoollessons.com/germination/ Copied from Google Images.)

DO PLANTS NEED LIGHT TO GROW?

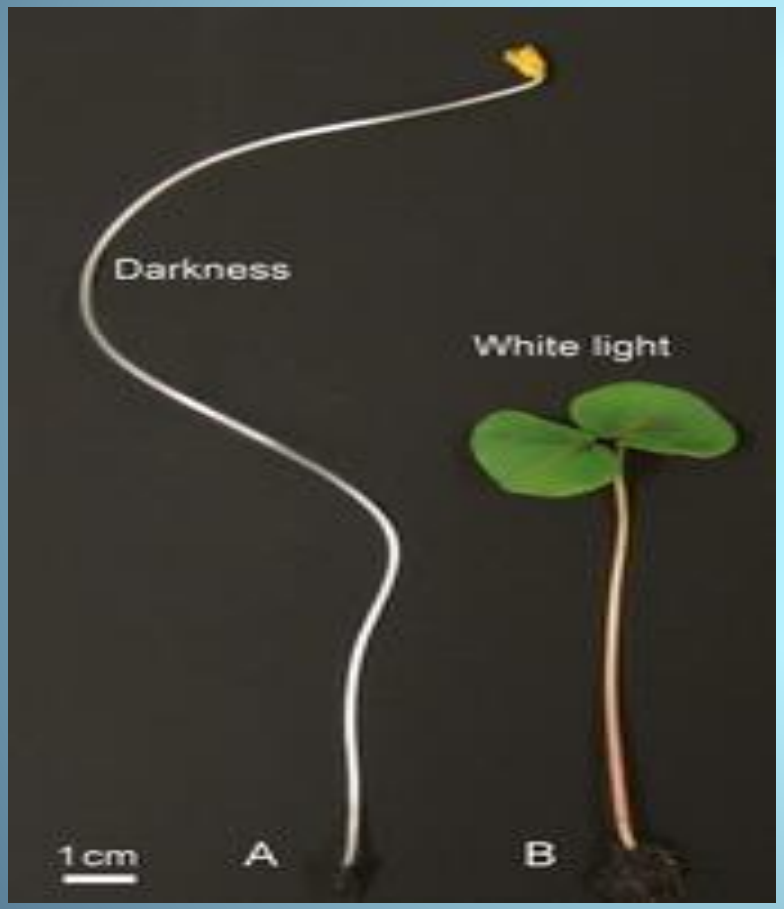


https://www.giftofcuriosity.com/seed-experiment-1-do-seeds-need-light-to-grow/ (Copied from Google Images.)

Experiment: To Determine if Plants Need Light to Grow

- In an experiment seeds were germinated as shown in the picture (Slide 3). Some seeds were placed in the dark while the others were placed in the light.
- Growth of the seedlings were observed for 10 days. A table was then used to compare the two sets of plants.

Appearance of the plants grown in dark and light



Documentation of skoto- and photomorphogenesis, as well as the ... researchgate.net
https://www.researchgate.net/figure/ (google images)

- The picture on this slide shows the appearance of the plants after 10 days.
- Draw a table to compare the:
  - height of the plants
  - colour of the leaves
  - size of the leaves.

Assessment

1. Which of the two sets of plants would you consider to be healthier for further growth?

2. Explain why the plant in the dark grew taller.

Answer Key – Slide 5.

Table to compare plants grown in darkness and light.

Structure	Plant in dark	Plant in light
Height of plant	Taller	Shorter
Colour of leaves	Yellow	Green
Size of leaves	Small	Large

Answer Key for the Assessment – Slide 6.

1. The plant which was grown in the light is considered to be healthier for further growth since the leaves are green and large. These leaves will be used for the plant to make its food.

Answer Key for the Assessment – Slide 6.

2. The plant in the dark grew taller as the plant "is trying" to reach/grow towards the light, before the food which is stored in the seed, is used up.

Plants need light to make their own food.