

WELCOME TO THE ONLINE CLASS

SESSION NO.: 2

CLASS: 5

SUBJECT: SCIENCE

CHAPTER NUMBER: 1

CHAPTER NAME: PLANTS: INCREASING THE NUMBER

SUB TOPIC: SEED GERMINATION, STAGES IN GERMINATION

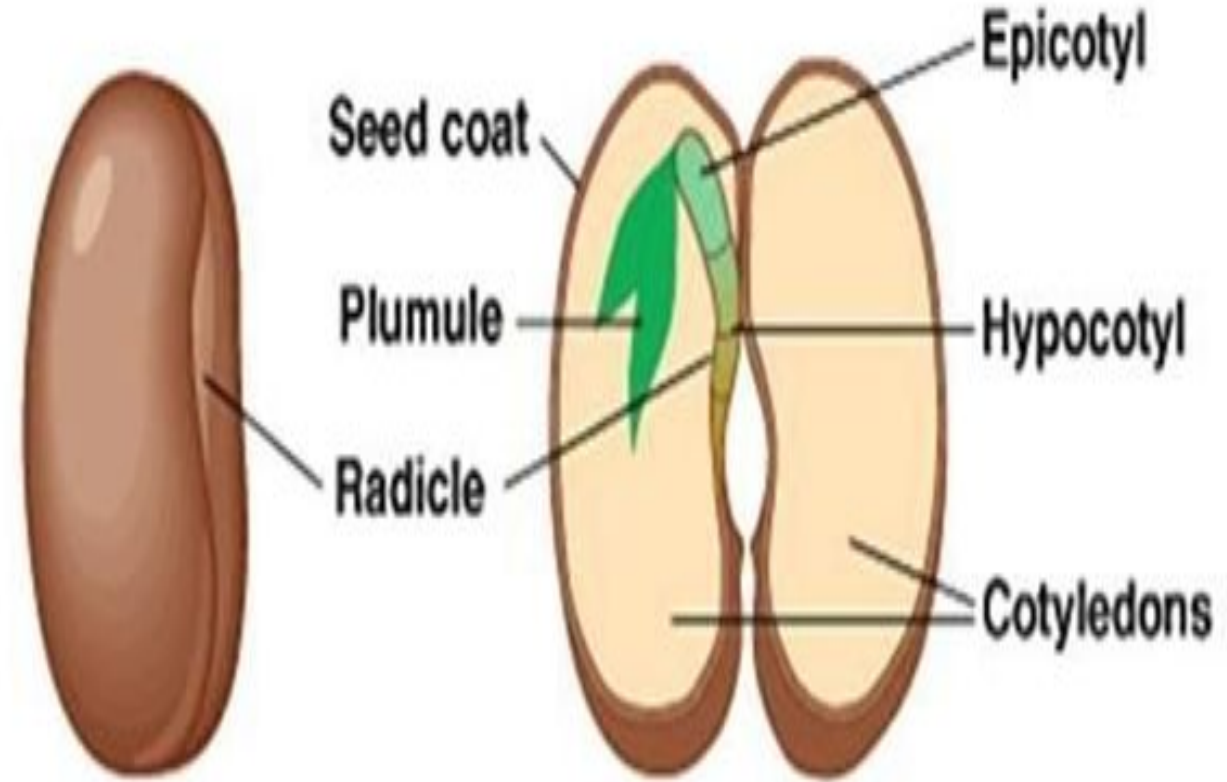
CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

To enable the learner to learn and identify the different stages of germination.

WARM UP

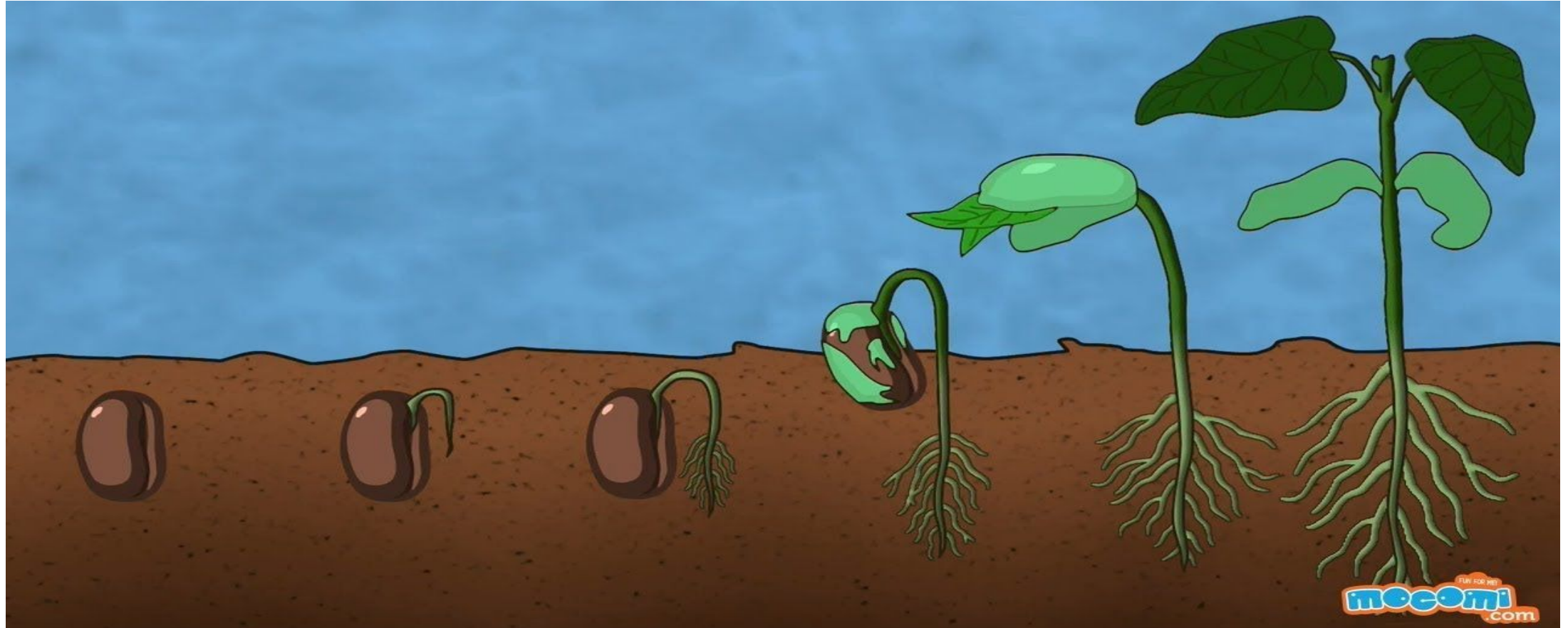
- Name the outer covering of the seed.
- What is the seed leaf inside the seed coat known as?
- What is the baby plant inside the seed known as?
- What does it have?
- Mention the function of cotyledons.



(a) Common bean

SEED GERMINATION

- The process by which a seed develops into a new plant is called **germination**.



SEED GERMINATION

- The process of germination starts off, when the seed soaks in water.
- The seed first absorbs water and as a result swell up.
- Hours later, a small root tries to come out through a small hole.



SEED GERMINATION

- It brings out a tiny shoot
- The tiny shoot (plumule) grows upwards and the tiny root (radicle) grows downwards.
- The small plant with seed leaves called seedling.
- Seedling begins to prepare its own food with the appearance of the first foliage leaves



CONDITIONS FOR GERMINATION

- **Warmth:** Seeds need a suitable temperature for germination. the temperature should neither be more nor less. Preferable range of temperature is 25 degree to 35 degree Celsius.
- **Water:** Water is essential for germination. It makes the seed coat soft that helps the baby plant to break the seed open and come out.
- **Air:** Germinating seeds need air to breathe.

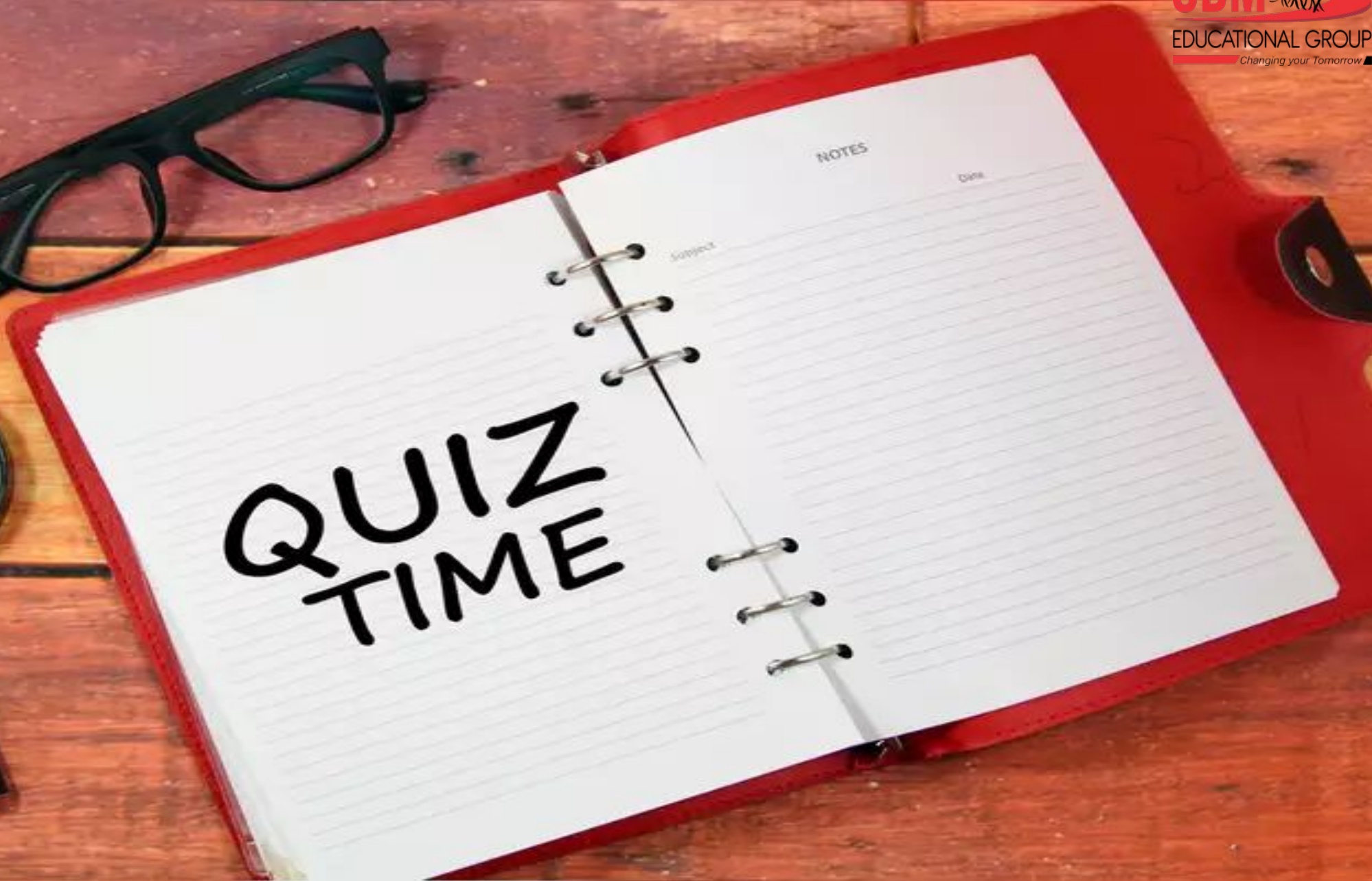
STAGES IN GERMINATION

- **Seedling**: The embryo develops into a seedling having one or two cotyledons.
- **Sapling**: The seedling develops into a sapling after losing its cotyledons.
- **Plant**: The sapling develops into a plant.



SUMMING UP

- The process by which a seed develops into a new plant is called **germination**.
- The small plant with seed leaves is called seedling.
- Warmth, air and water are required for germination.
- Seedling, sapling and plant are the various stages in germination.



1. The small plant with seed leaves.

ANS: Seedling

2. The process by which a seed develops into a new plant.

ANS: Germination

3. Find the odd one out.

- a. water**
- b. air**
- c. warmth**
- d. seedling**

ANS: d. seedling

4. When seedling loses its cotyledons then it is called a

_____.

ANS: Sapling

HOMEWORK

Draw a labelled diagram of different stages of germination.

LEARNING OUTCOME

The learner will be able to identify the different stages of germination.

THANKING YOU
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