

## **P.6 SCIENCE EXTRA 8**

### **UNDERGROUND STEMS**

- **They have buds, scale leaves and adventitious roots**
- **They are swollen because they store food (starch)**

**1. Why are underground stems sometimes called storage stems?**

- **They store food (starch)**

### **Groups of underground/storage stems**

- **Stem tubers**
- **Bulbs**

- **Rhizomes**
- **Corms**

## **STEM TUBERS**

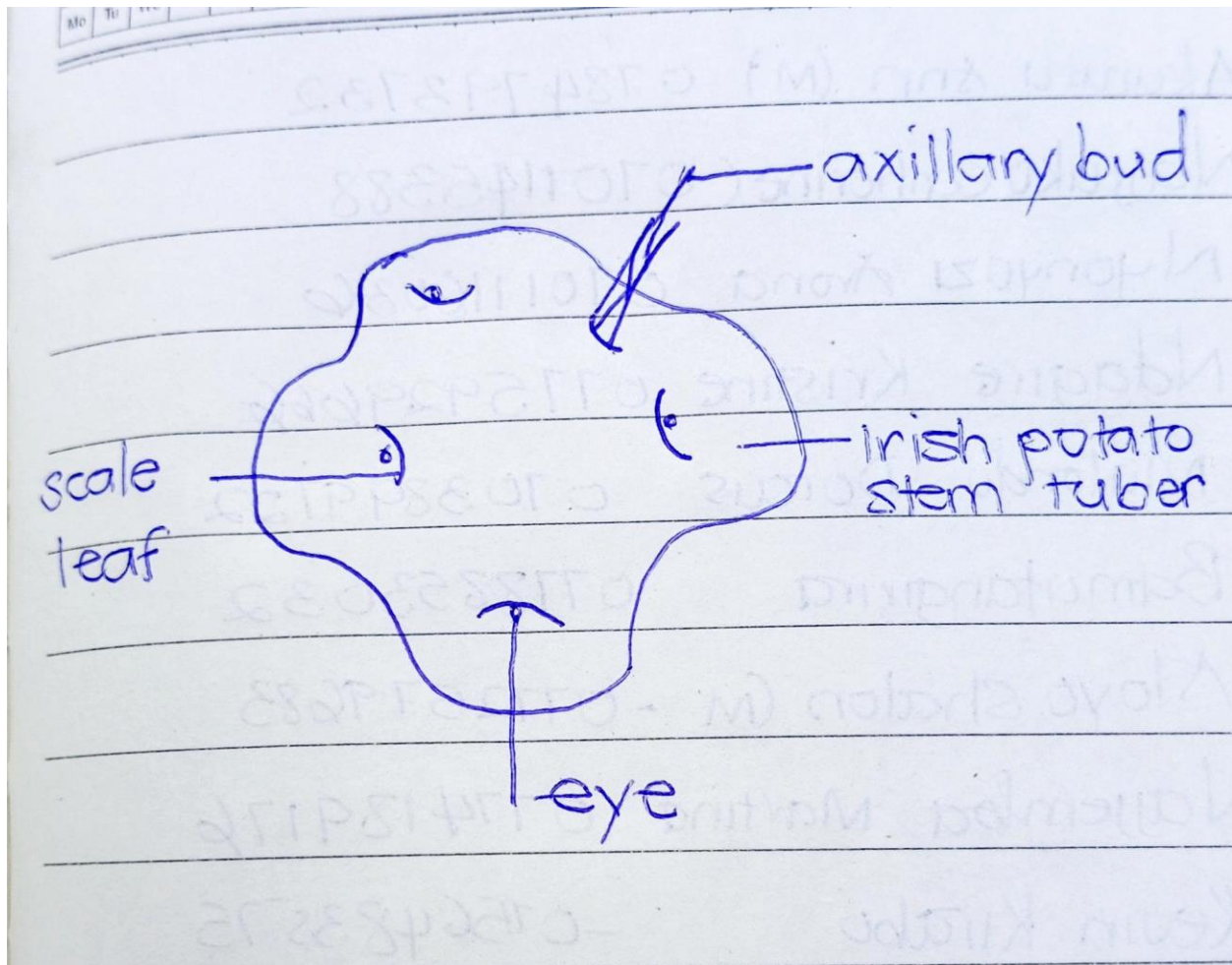
- **These are swollen underground stems that store food**
- **We eat the stem tuber**

## **Examples of stem tubers**

- **White yam**
- **Irish potatoes**

## **A diagram showing a stem tuber**

**Irish potato**



### **Scale leaf:**

- it protects the axillary bud

### **Axillary bud:**

- it develops into a shoot

## **Stem tuber:**

- it stores starch

**2. How are white yams and Irish potatoes propagated?**

- By means of stem tubers

**3. Why is a sugarcane plant not called a stem tuber?**

- Its storage stem is above the ground while that of a stem tuber is found underground
- Its storage stem is not found underground

## **BULBS**

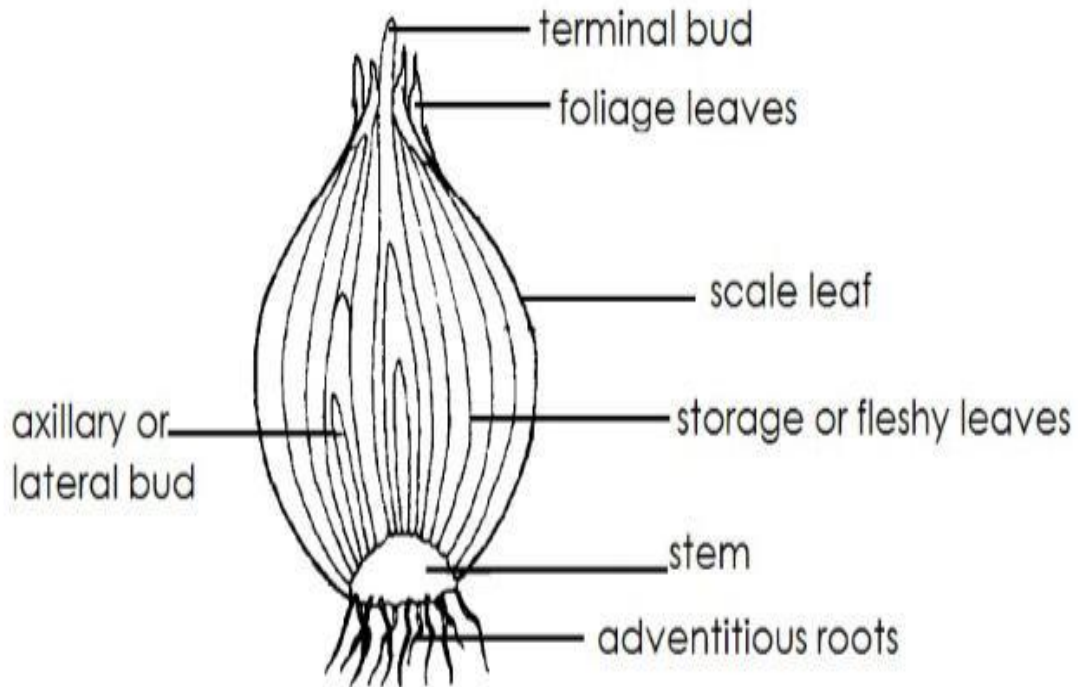
- **These are swollen underground stems with swollen fleshy leaves**
- **They have adventitious roots**

### **Examples of bulbs**

- **Onion**
- **Garlic**
- **Shallot**
- **Spider**
- **Tulip**
- **Daffodil (Narcissus)**

### **A diagram showing a bulb**

## **(onion bulb)**



### **Foliage leaves:**

- **to make food**

### **Fleshy leaves:**

- **to store food**

## **Scale leaves:**

- **to protect the fleshy leaves**

## **Stem:**

- **to hold the fleshy leaves / to conduct water and mineral salts from the roots to the leaves**

## **Adventitious roots:**

- **to provide extra support / to absorb water and mineral salts**
- **from the soil**

## **Terminal bud:**

- **to enable the plant grow taller**

### **Axillary bud:**

- **to develop into a new shoot**

### **4. How are onions propagated?**

- **By means of bulbs**
- **By means of seeds**

### **RHIZOMES**

- **These are horizontal underground stems that store food**

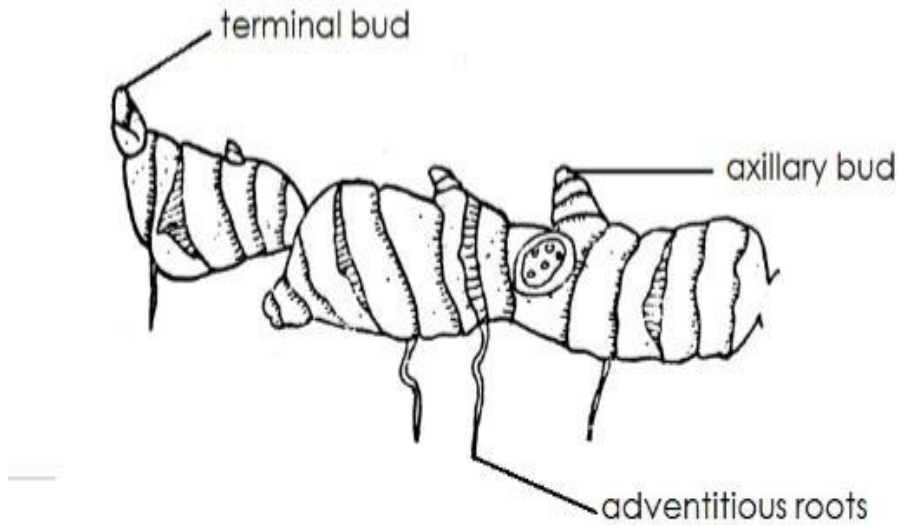


- **They have adventitious roots which grow from nodes of the stem**

## **Examples of rhizomes**

- **Ginger**
- **Turmeric**
- **Zoyzia**

## A diagram showing a rhizome



## ginger

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- **Canna lily**
- **Couch grass**
- **Spear grass**

## 5. How is ginger propagated?

- **By means of rhizomes**

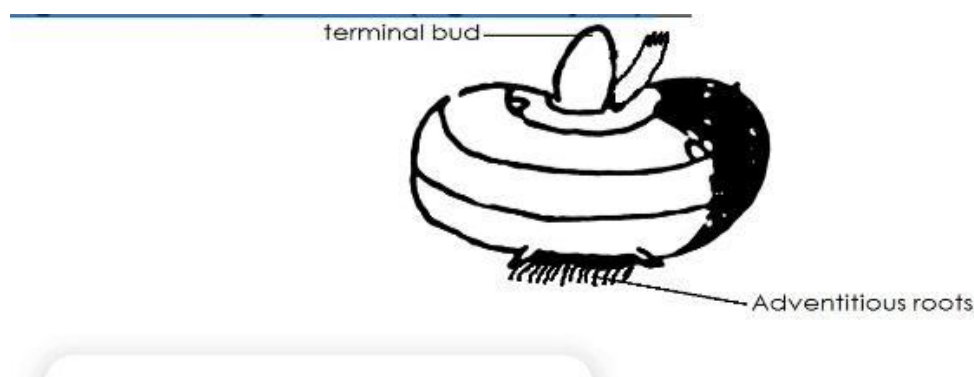
# **CORMS**

- **These are short vertical underground stems that store food**

## **Examples of corms**

- **Coco yam**
- **Crocus**
- **Gladiolus**

## **A diagram showing a corm coco yam**



## **6. How is coco yam propagated?**

- **By planting of corms**

- **Activity**

- a) **Give one example of a bulb.**

- b) **How are bulbs propagated?**

- c) **Identity the class of food obtained from feeding on onion.**

- d) **Apart from providing the above class of food to the body, how else are onions important to a chef**

- e) How is a ginger rhizome propagated ?**
- f) State the class of food obtained from ginger.**
- g) Apart from ginger, give one other example of a rhizome.**
- h)**