

- Thick walled cells.
- Don't possess living protoplast at maturity.

H/W

1. Differentiate between sclerenchyma & parenchyma tissues. Draw well labelled diagrams.
2. Water hyacinth floats on water surface. Explain.
3. Why epidermis is important for plants?
4. We get a crunchy & granular feeling, when we ~~eat~~ chew pear fruit. Why?
5. Why it is difficult to pull the husk of a coconut tree?

Answers.

- | sclerenchyma  | parenchyma   |
|---|--|
| → long dead cells with a deposit of lignin in cell wall | → plant cells with thin cell walls & living protoplasts. |
| → They don't have intracellular space                   | → They <del>don't</del> have intracellular space         |

## Sclerenchyma

## Parenchyma

1. Present in stem, growth and vascular bundles, of stems & roots  
Grains of leaves & mesophyll of leaves  
& in hard covering & packing tissue  
of seeds and nuts in xylem and phloem.

2. Water hyacinth has large air cavities in the parenchyma tissue. For this reason it floats on water. These special tissues are called aerenchyma. This tissue has air filled space inside & because the air gets trapped inside they are able to float.

3. Epidermis is important for plant because:-
- ⇒ It forms boundary between plant & external environment
  - ⇒ It prevents water loss.
  - ⇒ It regulates the gaseous exchange.
  - ⇒ Secretes metabolic compounds.
  - ⇒ It absorbs water & mineral.

4. Pear contains cells of sclerenchyma. They are hard & with highly thickened cell wall. These cells give the crunch & granular feeling when we chew the fruit.



5- Walls of sclerenchyma are lignified which make them thick. This tissue make the plant ~~hard~~ - 2 stuff. Coconut husk is very hard - 2. is made of such thickened, lignified cells. Such cells make it very hard to pull out the coconut husk.

Protective tissue :-

is used to provide