

Biology I - diy NOTES  
Chpt 21.1, 23.2 (Plants part 1)  
Characteristics of Plants

Name \_\_\_\_\_

Date \_\_\_\_\_ Hour \_\_\_\_\_

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*Read chapter 21.1 in your text, pages 559-563 . Fill in the blanks (or answer the questions) below using the information you have read.*

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Characteristics of Plants:

1. number of cells (multi/uni) \_\_\_\_\_
2. nucleus? \_\_\_\_\_ ( \_\_\_\_\_-karyote)
3. get food by \_\_\_\_\_, so \_\_\_\_\_-troph
4. have thick \_\_\_\_\_ made of \_\_\_\_\_.
5. have cells organized into tissues such as \_\_\_\_\_ .
6. Plants live on \_\_\_\_\_.

They are thought to have evolved from :

7. Plants store food in the form of \_\_\_\_\_. Other kingdoms such as animals, store food in the form of \_\_\_\_\_ .

Adaptations to Life on Land:

1. Preventing \_\_\_\_\_ Loss:

Most stems and leaves have a waxy layer called a \_\_\_\_\_ .

This helps prevent the \_\_\_\_\_ in the plant's tissues from

\_\_\_\_\_ .

2. Carrying out \_\_\_\_\_ :

The \_\_\_\_\_ is a plant \_\_\_\_\_ .

Most of the \_\_\_\_\_ occurs here.

They differ greatly in \_\_\_\_\_ and \_\_\_\_\_ and can vary on the same plant. Each plant division has \_\_\_\_\_ leaves or leaf-like structures.

### Leaf Modifications:

In addition to photosynthesis, some plants have structural adaptations to per form additional functions:

- Release \_\_\_\_\_ to protect from predators (fig 23.21 A)
- \_\_\_\_\_ spines are modified leaves that \_\_\_\_\_ and \_\_\_\_\_ .
- Carnivorous plants can \_\_\_\_\_ or small animals (fig 23.21

B)

- Can store \_\_\_\_\_ or \_\_\_\_\_ (fig 23.21 C)

### 3. Putting down \_\_\_\_\_:

Algae and water plants get nutrients by osmosis and diffusion from the \_\_\_\_\_ around them.

Most land plants depend on the \_\_\_\_\_ as their primary source for \_\_\_\_\_ and other \_\_\_\_\_.

Describe 3 other functions of roots.

### 4. \_\_\_\_\_ materials:

A \_\_\_\_\_ is another type of organ found in plants.

Name 4 functions of stems:

What is the purpose of vascular tissue?

Plants are divided into 2 categories:

Describe vascular plants and give examples.

Describe non-vascular plants and give examples.

Describe 2 advantages of having vascular tissue.

Use the glossary to define the two types of vascular tissue:

**xylem:**

**phloem:**

5. \_\_\_\_\_ strategies:

Algae and Protists reproduce by releasing their \_\_\_\_\_ into the \_\_\_\_\_, where fertilization and development take place.

Adaptations of some land plants include the evolution of \_\_\_\_\_ .

A seed is a plant \_\_\_\_\_ that contains an \_\_\_\_\_ (which is the baby plant), a \_\_\_\_\_ supply known as a

**cotyledon,**

and is covered by a \_\_\_\_\_ . Label the diagram

below.

A seed \_\_\_\_\_ the embryo from \_\_\_\_\_ and can also aid in its \_\_\_\_\_ .

(Can be carried by the wind, water, and animals).

Land plants reproduce by either \_\_\_\_\_ or \_\_\_\_\_ .

Non-seed plants:

examples: \_\_\_\_\_

require a film of \_\_\_\_\_ for reproductions so

the \_\_\_\_\_ can reach the \_\_\_\_\_ .

Seed Plants:

examples: \_\_\_\_\_

sperm (pollen) reach the egg \_\_\_\_\_ using a  
film of \_\_\_\_\_ .

\_\_\_\_\_ plants require wetter habitats than  
\_\_\_\_\_ plants.