

## STATION #1

Instructions: Write down the notes and answer the questions using your textbook pp. 435 – 437. Don't forget to look at diagrams too. Write in complete sentences since this will be for your notes.

Write down these notes:

### AQUATIC PLANTS:

- Live in or near a source of water.
- Lack internal system to transport water and nutrients.
- All have cell walls made of cellulose.

### Phylum Chlorophyta (Green Algae)

- Most likely gave rise to land plants.

Answer these questions in complete sentences for your notes:

1. What type of chlorophyll is common to all three phylums of aquatic plants?
2. A) Name an example of a unicellular (single celled) algae.  
B) Explain how *Chlamydomonas* are similar and different than land plants (p.437).
3. How is *Volvox* able to move? (p.437)
4. What is an important difference between *Chlamydomonas* and *Volvox*? (p. 437)

Write these notes down:

- *Volvox* is a colonial algae, made up of many individual cells that function as one unit.
- *Volvox* undergoes sexual reproduction where a few cells form eggs and others form sperm = **heterogamy**
- *Volvox* also undergoes asexual reproduction where vegetative cells divide to form daughter colonies, which stay within the parent colony.

## STATION #2

1. Look at the prepared slide of ***Volvox***.

- Draw a diagram of it.

2. Look at the prepared slide of ***Spirogyra***.

- Draw a diagram of the vegetative cells of *Spirogyra*.

### **STATION #3**

Instructions: Write down the notes and answer the questions using your textbook pp. 438. Don't forget to look at diagrams too. Write in complete sentences since this will be for your notes.

Write down these notes and answer the questions in complete sentences:

#### **Phylum Chlorophyta (continued)**

##### Multicellular algae:

##### A. Filamentous algae (chain of cells)

1. Name an example of a filamentous algae.
2. Explain how it can reproduce sexually and asexually.

##### B. Multicellular sheets ex) *Ulva*

## **STATION #4**

Instructions: Write down the notes and answer the questions using your textbook pp. 439. Don't forget to look at diagrams too. Write in complete sentences since this will be for your notes.

Write these notes down:

### **Phylum Phaeophyta (Brown Algae)**

- Example *Fucus*
- Has accessory pigments
- Multicellular
- Asexual reproduction = fragmentation of spores
- Sexual reproduction = gametes, egg and sperm, fuse to form a zygote = heterogamy

Answer the following questions in complete sentences:

1. What are the leaf-like structures called?
2. What are the root-like structures called?
3. What is the name of the gas-filled structures which provide floatation and hold the plant upright?  
 These structures also hold leaf-like structures closer to the surface of the water so they can get more direct sunlight for photosynthesis.
4. Draw a picture of Fucus

## **STATION #5**

Write these notes down:

### **Phylum Rhodophyta (Red Algae)**

- Has accessory pigments
- Multicellular
- Asexual reproduction = fragmentation.
- Sexual reproduction = gametes fuse to form a zygote.

Answer the following questions in complete sentences:

1. What adaptations do red algae have that enable them to live in deep water? (p. 439)
2. What common Japanese food is wrapped in red algae?

### **Order Algae is found on the shoreline**

- Green algae are found on and near the shore.
- Brown algae are found on the shore and in deeper water.
- Red algae are found in the deepest water.

Brown and Red algae are commonly called seaweed.