

A close-up photograph of a human hand held palm-up, completely covered in a thick, vibrant green moss. The moss is composed of numerous small, individual plants growing together. The background is a blurred natural setting with soil and some green vegetation.

# Kingdom Plantae

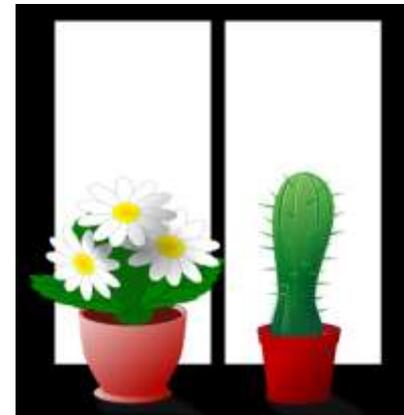
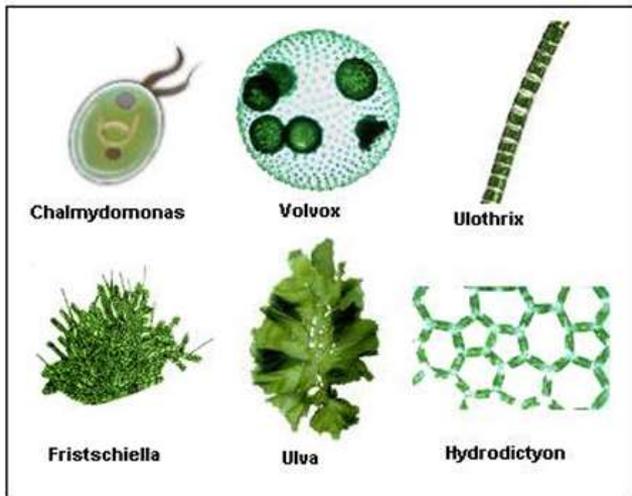
## *Primitive Plants*

*Mr. Skirbst*

# Plants



# Kingdom Plantae



# Kingdom Plantae

All “plants” are...

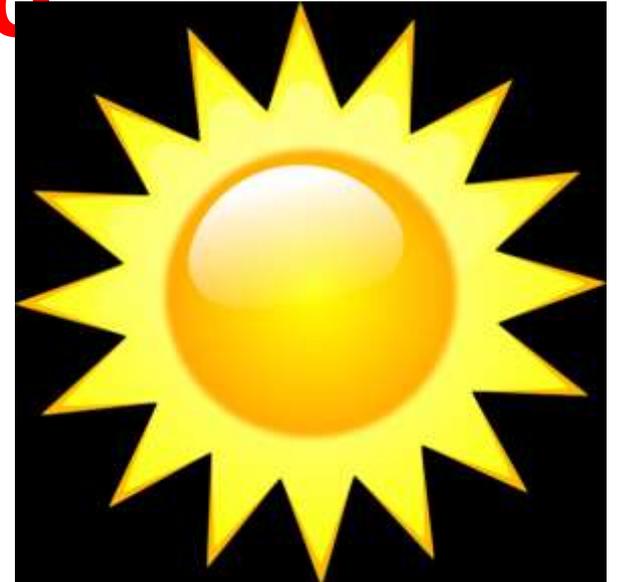
- **Multicellular organi**



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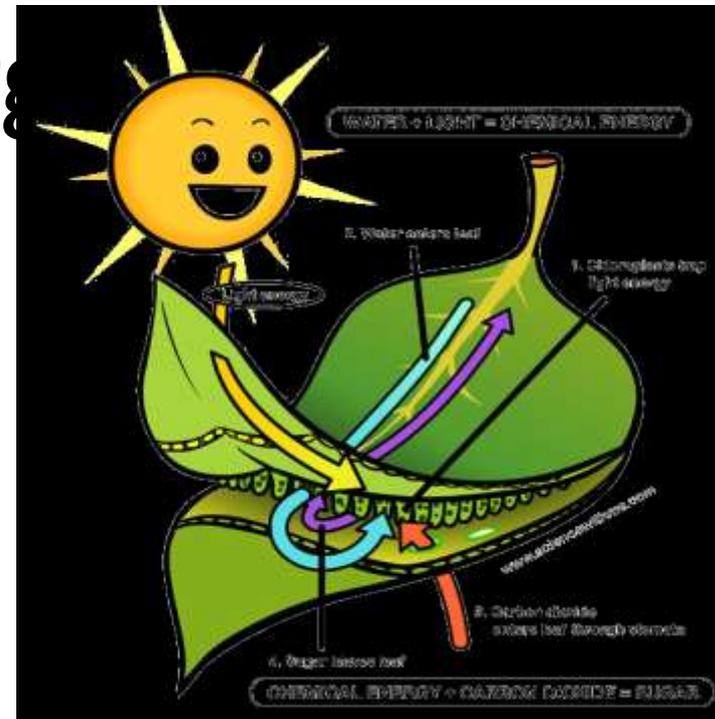
- Multicellular organisms
- **Autotrophs (undergo photosynthesis)**



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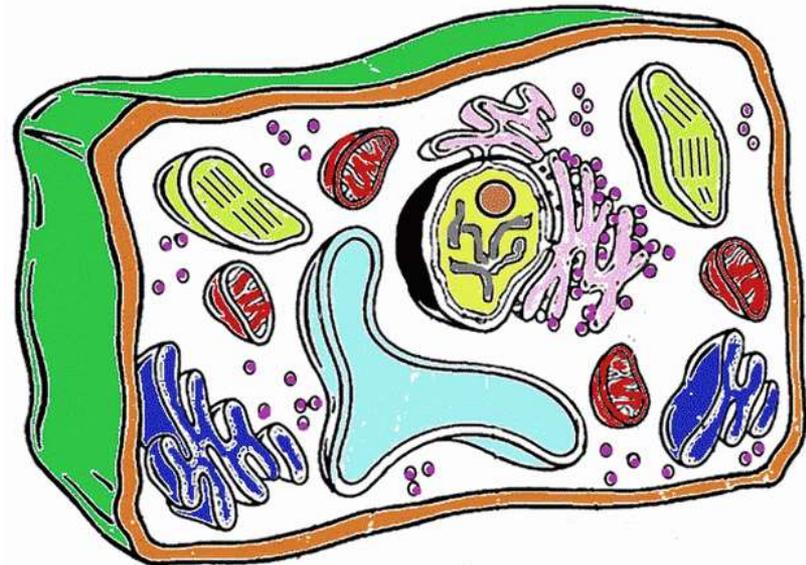
- Multicellular organisms
- Autotrophs (undergo photosynthesis)
- **Have chlorophyll**



# Kingdom Plantae

All “plants” ...

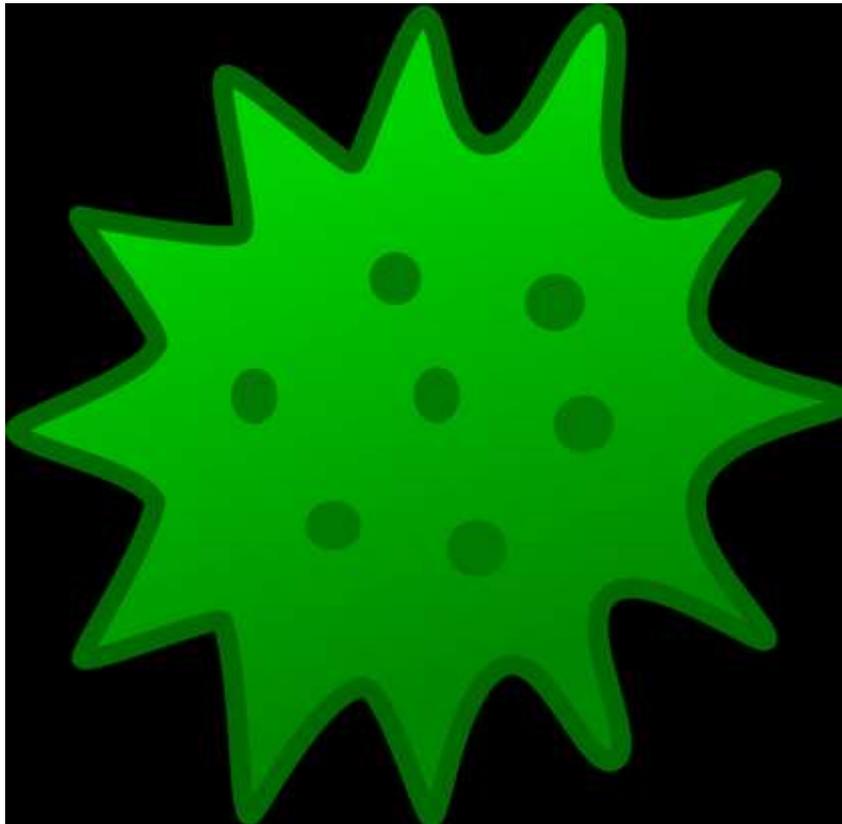
- Multicellular organisms
- Autotrophs (undergo photosynthesis)
- Have chlorophyll
- **Have cell walls**



# Primitive Plants

# Primitive Plants

- Plants with simple structures



# Primitive Plants

- Plants with simple structures
- **Do not produce seeds**



# Multicellular Algae



red  
alga



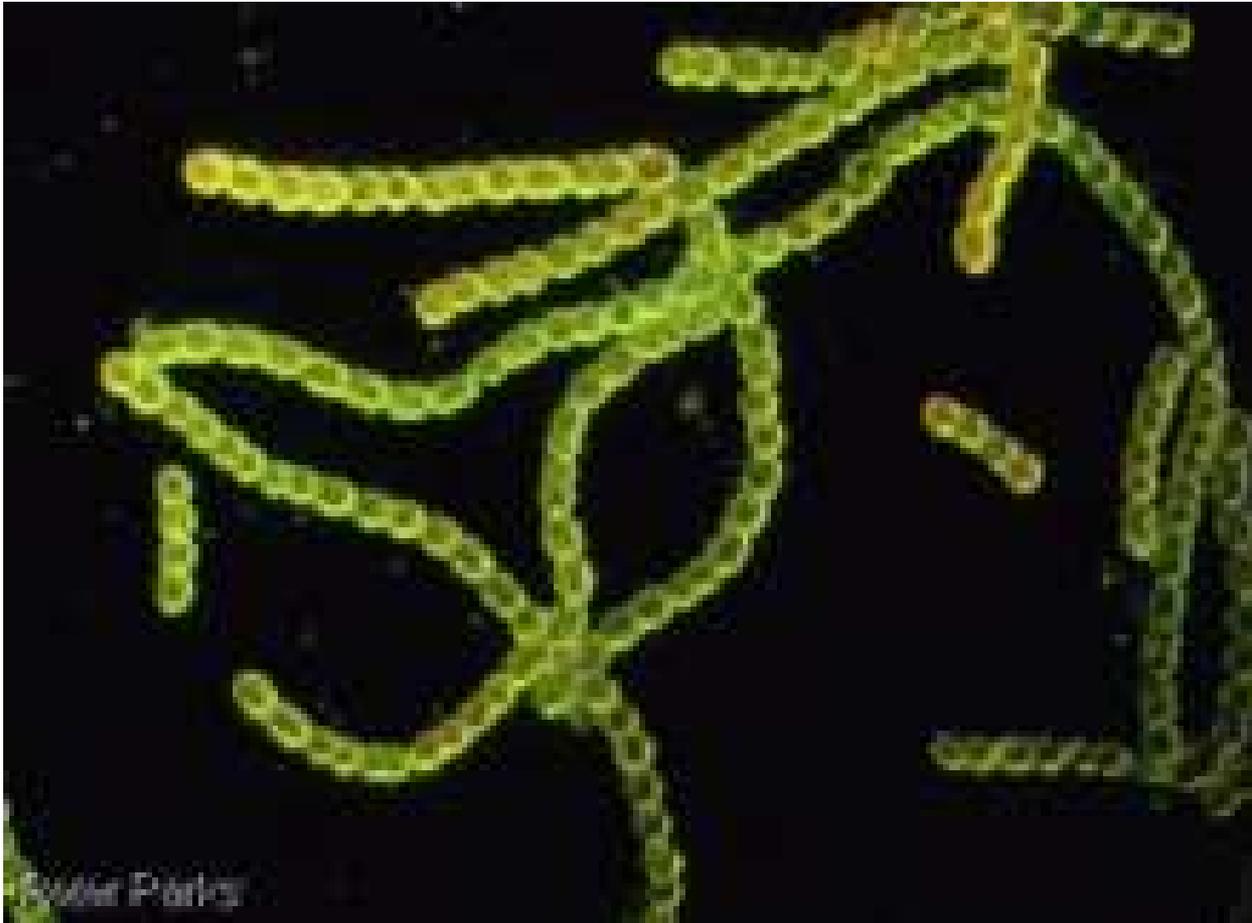
brown  
alga



green  
alga

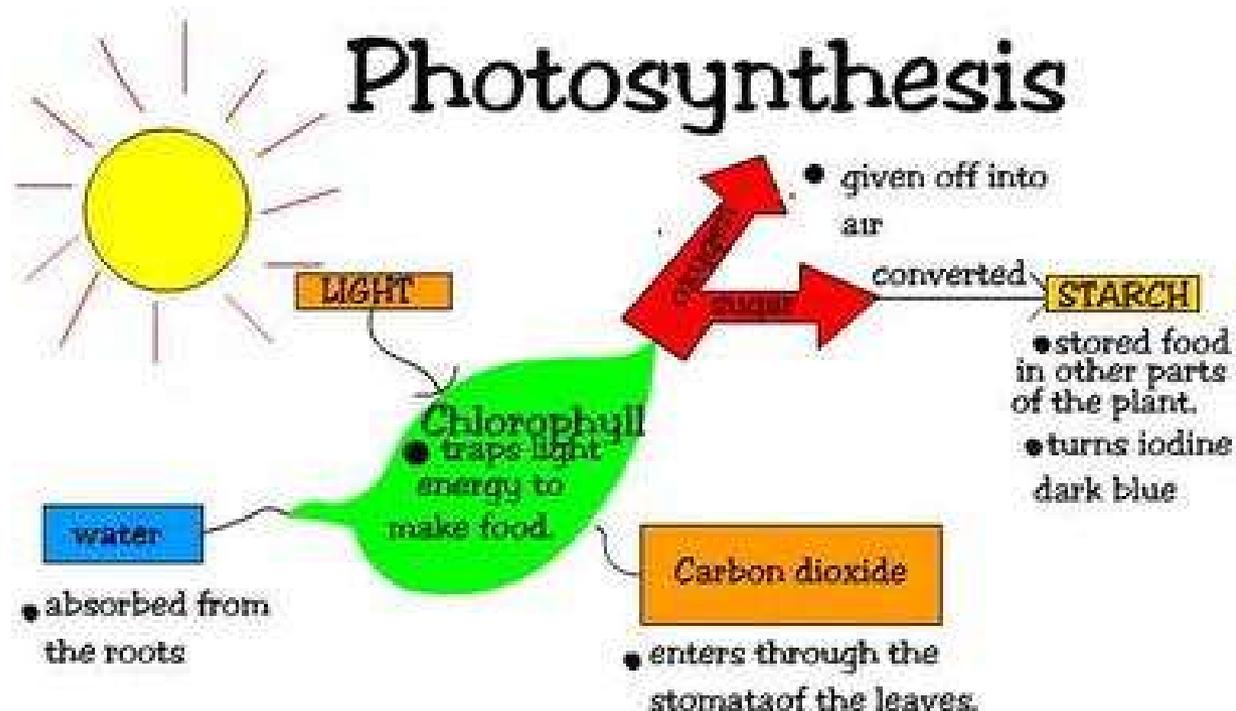
# Multicellular Algae

- Made of many cells



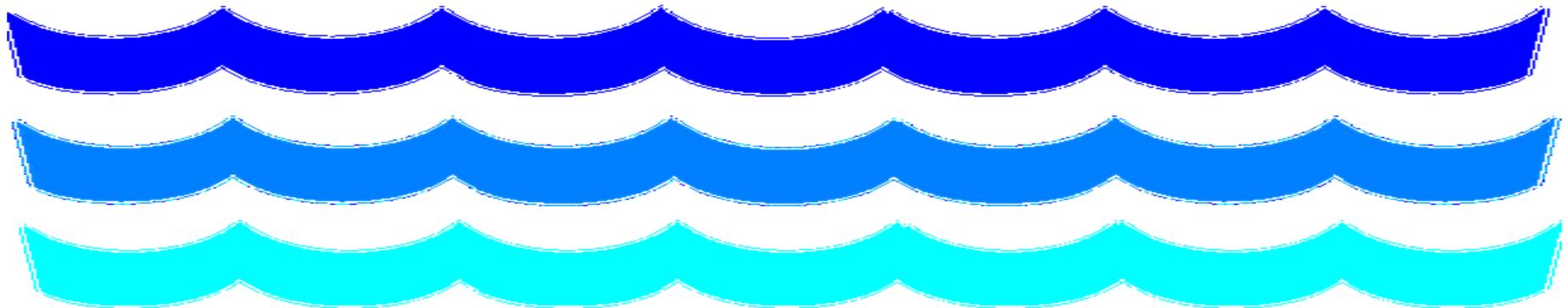
# Multicellular Algae

- Made of many cells
- **Autotrophs (have chlorophyll)**



# Multicellular Algae

- Made of many cells
- Autotrophs (have chlorophyll)
- **Must live in or near water**  
**(they have no roots or stems)**



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# Multicellular Algae

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- Autotrophs (have chlorophyll)
- Must live in or near water  
(they have no roots or stems)
- Do not have seeds
- **Divided into 3 phyla**



brown  
alga



red  
alga



green  
alga

# 1. Brown Algae



brown  
alga

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- Most live in o



# 1. Brown Algae

- Most live in ocean

ex. kelp (seaweed)

giant kelp can grow 100m high

(kelp is edible)



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ex. sargassum – floating algae



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Sargasso Sea – Bermuda





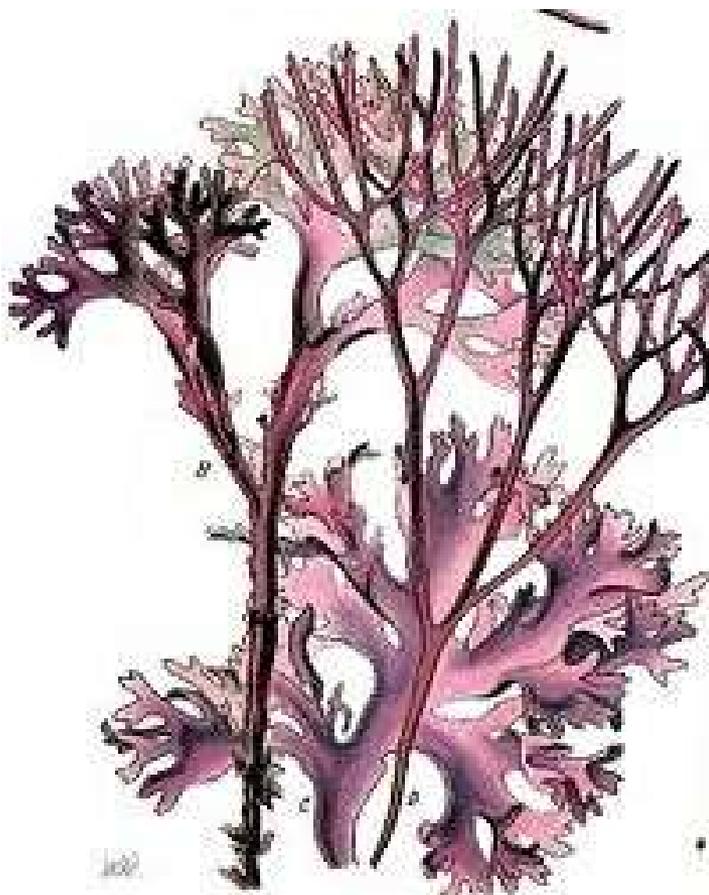
## 2. Red Algae



red  
alga

## 2. Red Algae

- Most grow on benthic rocks  
(bottom)



## 2. Red Algae

- Most grow on benthic rocks
- **Red pigment helps absorb small amounts of light**

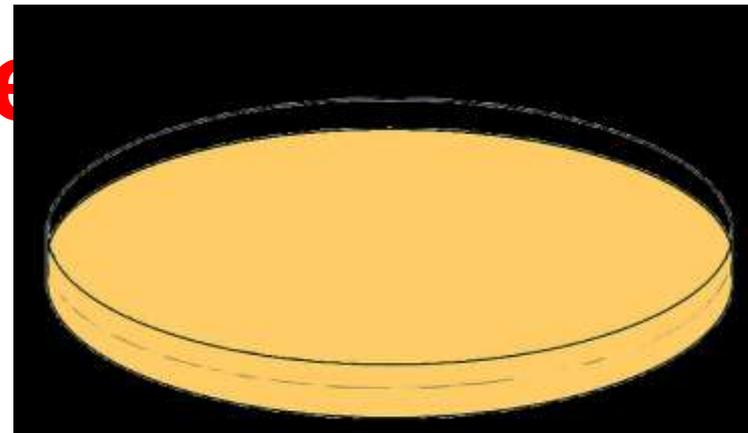
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- **Human uses include:**

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\* agar – grow bacteria



## 2. Red Algae

- Most grow on benthic rocks
- Red pigment helps absorb small amounts of light
- Human uses include:
  - \* agar – grow bacteria
  - \* carrageenan – ice cream, dressing, chocolate milk, cake frosting, toothpaste...

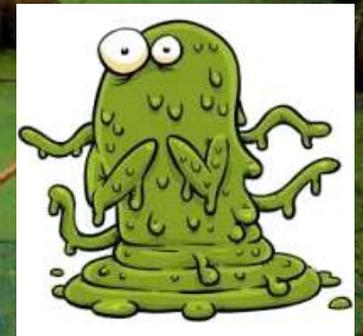
# 3. Green Algae



green  
alga

# 3. Green Algae

- Most live in fresh water ponds



# 3. Green Algae

- Most live in fresh water ponds
- **Too many results in over-productive “green ponds” (called eutrichification)**

<http://www.nbcbayarea.com/news/Yes-Algae-Can-make-You-Beautiful-218700381.html#>