

# Classification

# Classification

- A method of sorting based on structures and functions.

# Dichotomous Key

- Dichotomous means “branched.”
- Dichotomous keys are tools used to identify unknown organisms using careful observations and recording the observations in an organized manner.
- They are made by writing a series of contrasting descriptions of characteristics which branch in different directions, eventually leading to a clear identification and classification of an item or organism.

# 5<sup>th</sup> Grade Students

- Sort using the Dichotomous Key
- Do examples in class

# Your assignment

- Draw 6-8 items and create a system for sorting them using a dichotomous key. Your pictures must be in full color, include good detail, and be neat. The sorting must be accurate (with an answer key) for full credit. Use the method we learned in class and your handout to assist you.

## Dichotomous Key Rubric

- Sorting \_\_\_\_\_/15
- 6-8 Drawings \_\_\_\_\_/6
- Answer Key \_\_\_\_\_/2
- Neat \_\_\_\_\_/1
- Full Color \_\_\_\_\_/1
- Total \_\_\_\_\_/25

# Five Kingdoms

- Animal Kingdom
- Plant Kingdom
- Bacteria Kingdom
- Protist Kingdom
- Fungi Kingdom

# Animal Kingdom

# Animals

```
graph TD; A[Animals] --- B[Vertebrate (backbone)]; A --- C[Invertebrate (no backbone)];
```

**Vertebrate**  
(backbone)

**Invertebrate**  
(no backbone)

Read from textbook pages A94 – A95

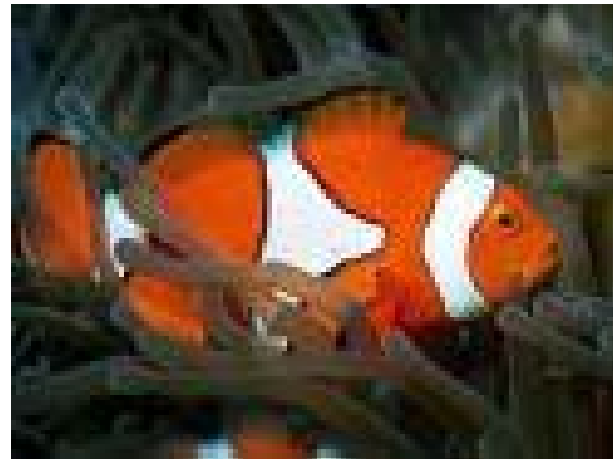
- Partner read out loud
- Be ready to share 2 new important things that you learned with the class

# Vertebrate

- Animals that have  
backbones

Examples are:

# ● Fish - cold blooded



# •Amphibians

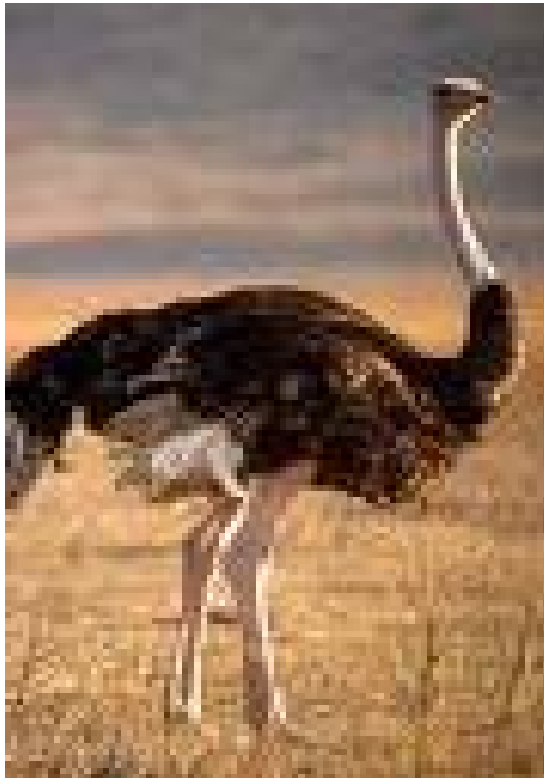
Cold blooded



- **Reptiles**-cold blooded



- **Birds**-warm blooded



*He looks kind of upset!*

# • Mammals-warm-blooded

- Upon seeing a large flying squirrel on her kitchen counter, Mrs. Fochtman exclaimed, “That’s no mouse, that’s a mammal!”
- (A mouse IS a mammal)



- **Warm – blooded:** Animal controls it's body temperature.
  - People, dogs, cats, birds
- **Cold - blooded:** The animal's body temperature is controlled by the environment.
  - Snakes, turtles, frogs, alligator

# Invertebrates

- Animals that do not have a backbone
- Examples are:

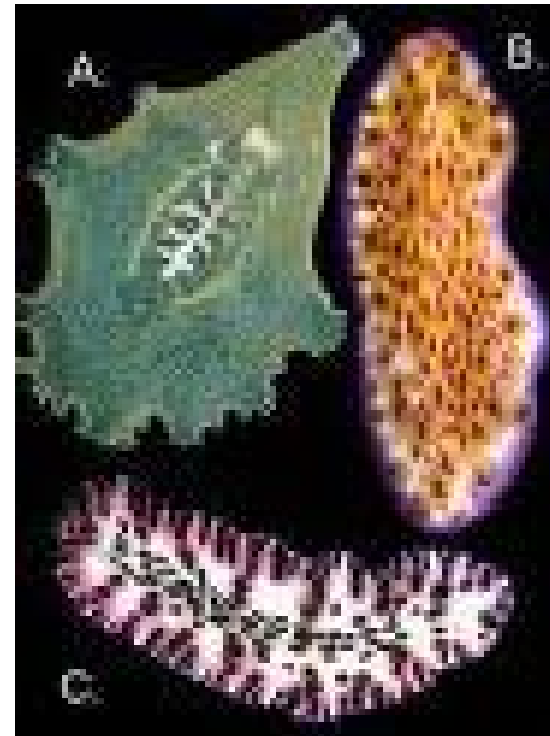
# Porifera (Sponges)



# Cnidaria



# Flatworms



# Roundworms



# Segmented Worms



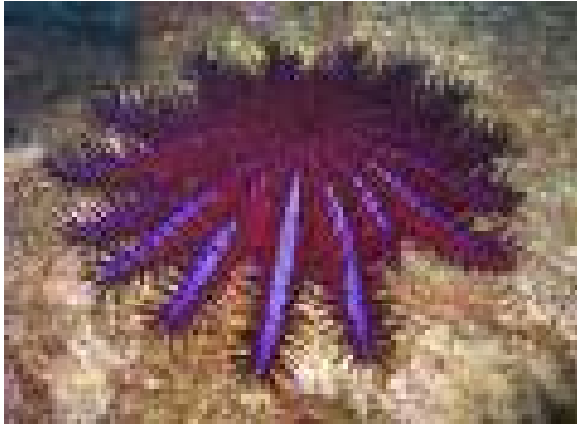
# Mollusks



# Anthropoda



# Echinoderms



# Vertebrate / Invertebrate Double Bubble Thinking Map

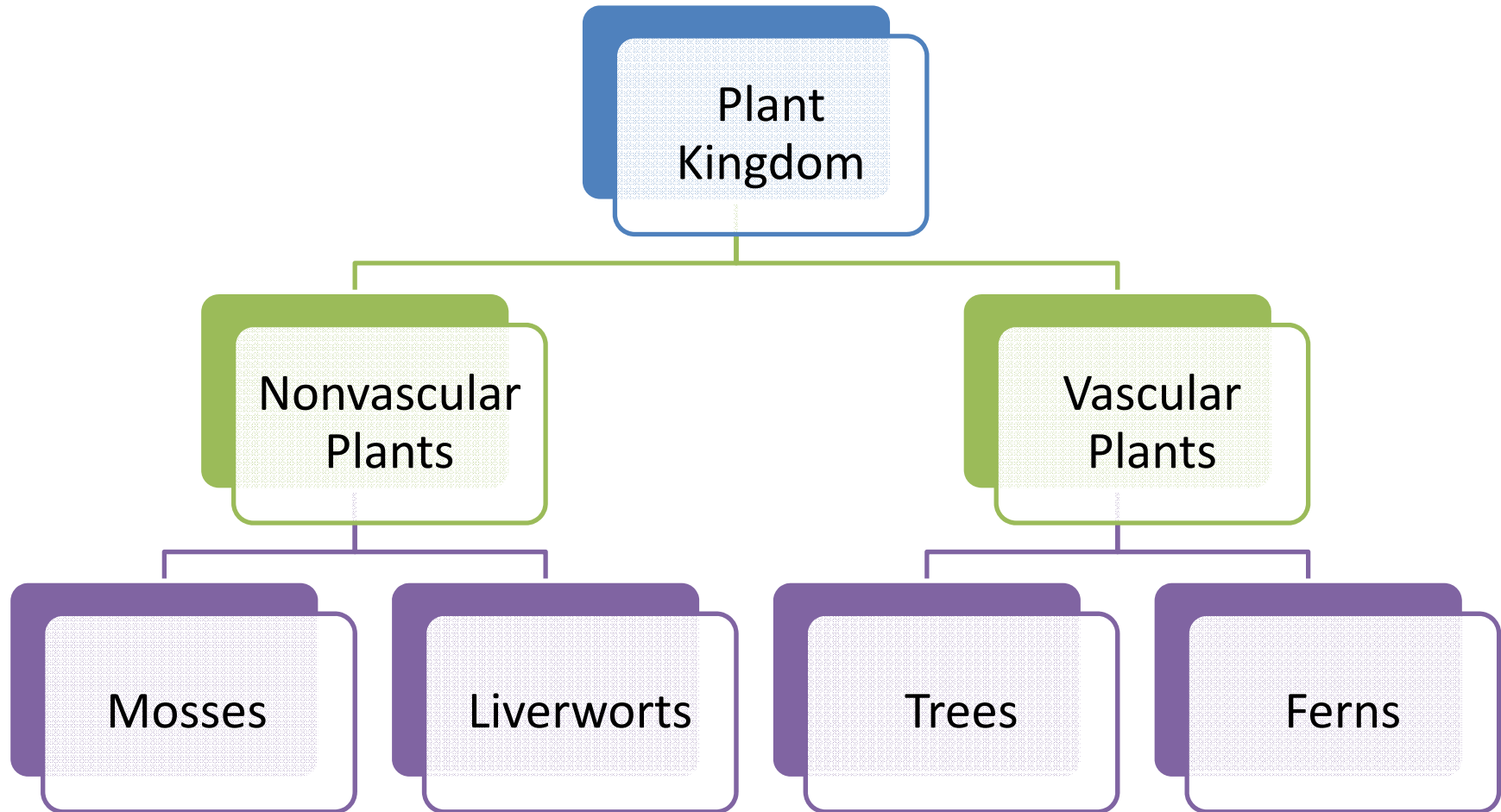
# Your assignment

- Use your notes and the textbook on pages A96-A99 to help you complete your thinking map. Choose a vertebrate and an invertebrate and create a double bubble thinking map to show similarities and differences between the two.

# Plant Kingdom

- Read pages A8- A11 by yourself
- Be prepared to share one new thing you learned.

# Plant Kingdom

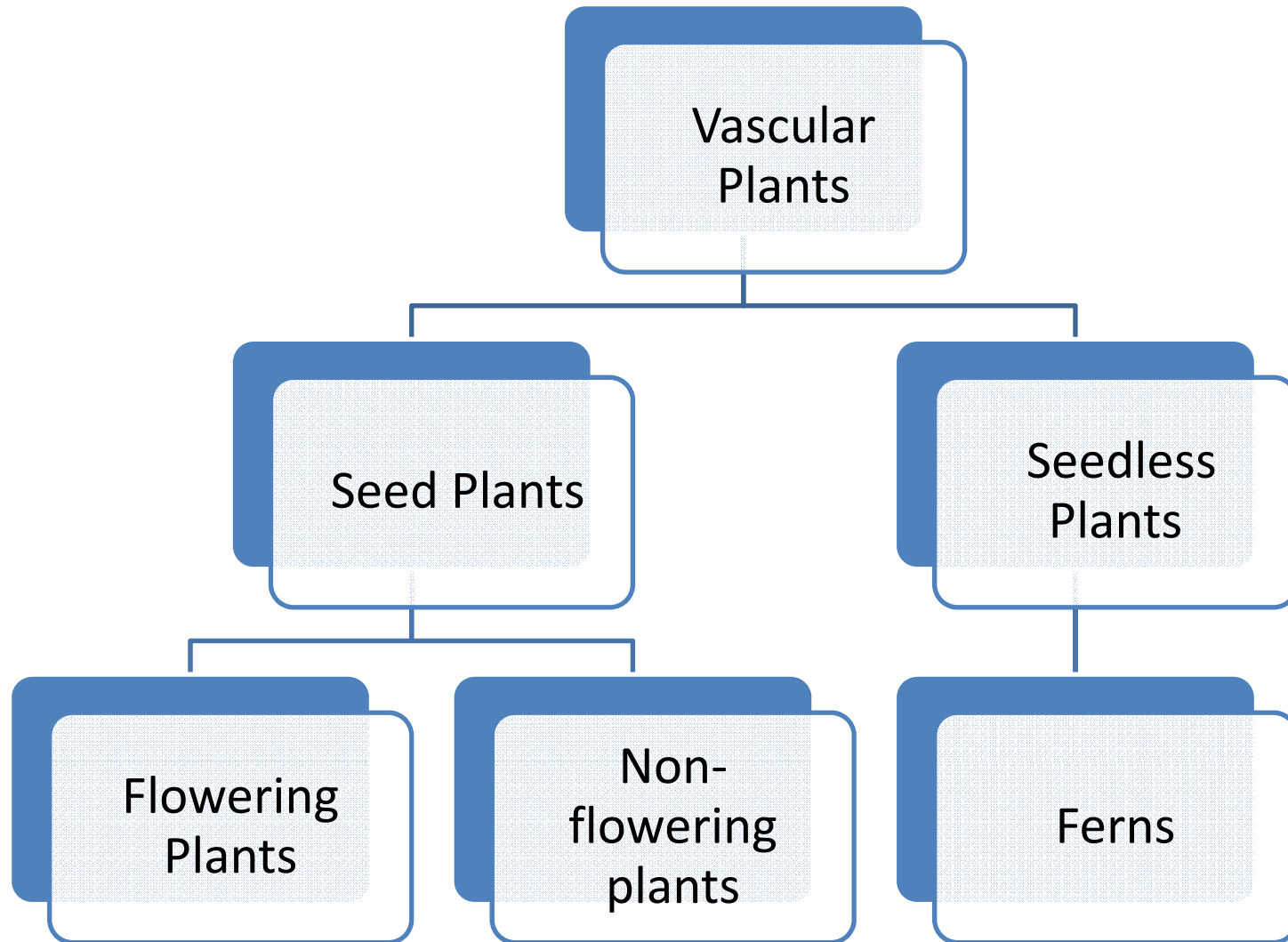


# Vascular Plants

- Containing plant tissue through which food and water move.
- Composed of or containing vessels.

# Nonvascular Plants

- Containing no plant tissue through which water and food move.



- Flowering Plants

- Daisy

- Tulip

- Cucumber

- Pumpkin

- Maple tree

- Wheat

- Non-flowering plants

- Moss

- Liverworts

- Spruce tree

- Pine tree

- Draw a Tree Map that starts with Plant Kingdom. Branch it out from there. Use your notes to help you.

# Fungus Kingdom

# Protist Kingdom

# Bacteria Kingdom

- Read pages A13, A14, and A15 together as a class.

- Fun exploratory activity with some interesting specimens to wrap up the unit!