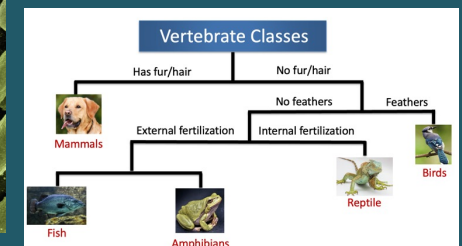
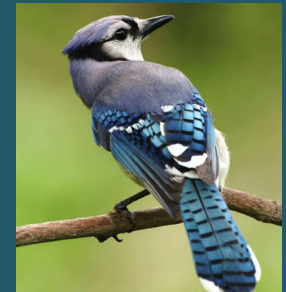


Classifying Life: Exploring Biodiversity

- What is Biodiversity?
- Why Classify Living Things?
- 6 Major Groups of Organisms
 1. Animals
 2. Plants
 3. Fungi
 4. Protists
 5. Bacteria (Eubacteria)
 6. Archaea
- Classification/Taxonomy
- How Living Things are Grouped
- 7 Levels of Taxonomy
- Binomial Naming System
- Dichotomous Key



Preview File

Please enjoy this preview of your Student Version of the presentation. Please note within this sample file:

- Some slides appear blank because they have been removed
- Student versions have portions of the text removed which is given in the teacher version and appear as _____ which the students are to fill in
- Other slides may have on them, this represents writing that has been removed on this sample

**The paid full version of your resource includes
both Google Slides and PowerPoint and is
Google Classroom Ready**



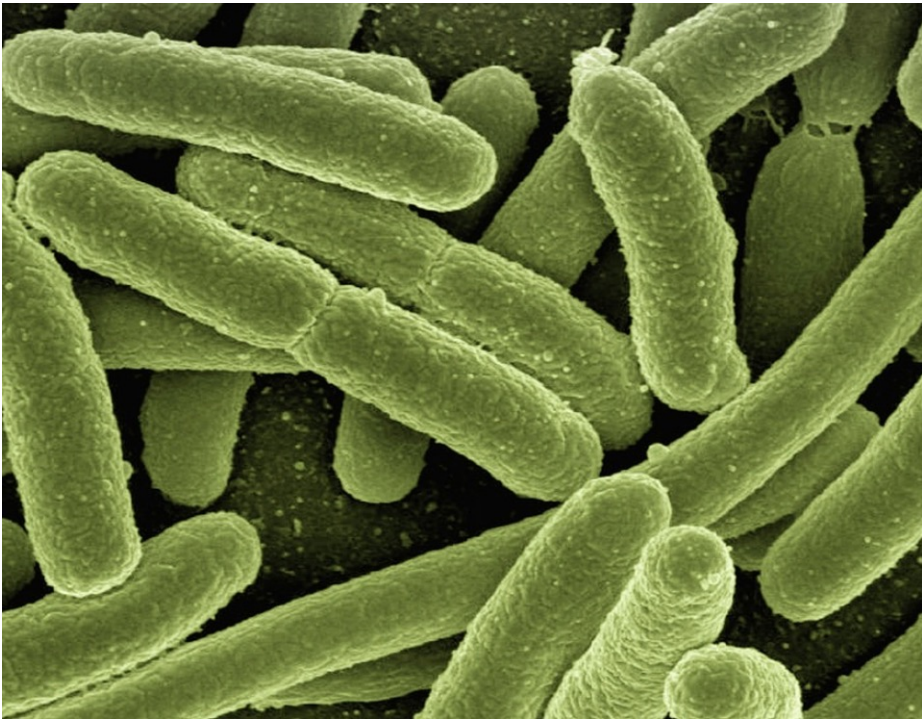
Learning Goals

By the end of this lesson, students will be able to:

1. Identify distinguishing characteristics of different groups of organisms.
2. Understand the basics of biological classification.
3. Use a simple classification system to categorize organisms.

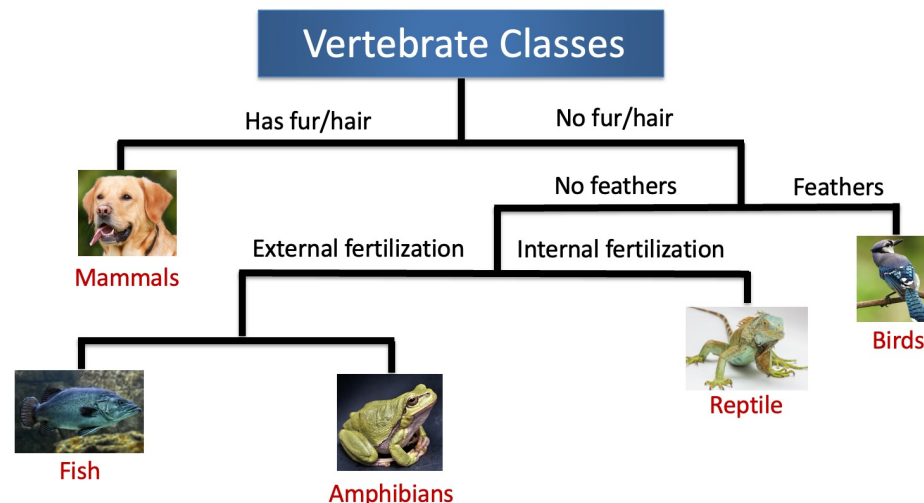
What is Biodiversity?

Definition: _____



Why Classify Living Things?

- To understand relationships between organisms
- _____
- To track and protect endangered species
- To organize our knowledge of life on Earth



6 Major Groups of Organisms

1. _____

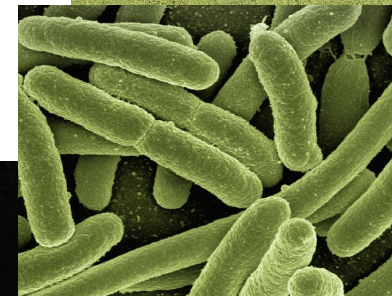
2. _____

3. Fungi

4. Protists

5. Bacteria (Eubacteria)

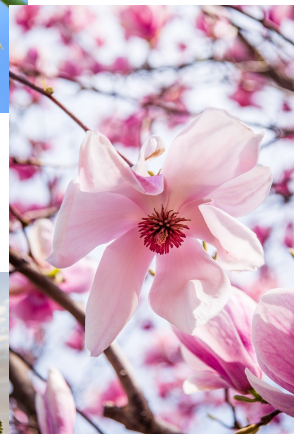
6. _____



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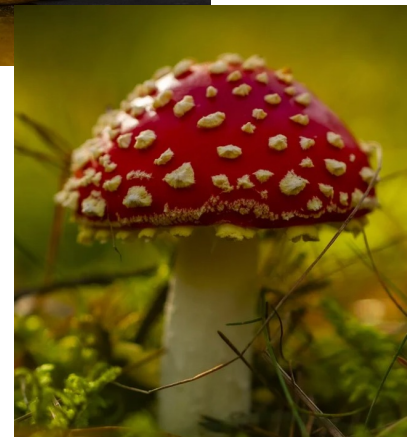
Plants

- Multicellular
- Eukaryotic
- Produce their own food through photosynthesis
- Usually cannot move around
- _____



Fungi

- _____
- Eukaryotic
- Absorb nutrients from their environment
- Usually do not move around
- Examples:



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Bacteria (Eubacteria)

- _____
- Prokaryotic – simple cells
- Found in diverse environments
- Some can produce their own food, others absorb nutrients
- _____



Multiple E. coli bacteria cells



Bacteria cells

Archaea

- Unicellular
- Prokaryotic
- Often found in extreme environments (heat, cold, acid, base, salinity, pressure, and radiation)
- _____
- Examples: methanogens, halophiles, thermophiles



Group of cells of
Halobacterium

Classification/Taxonomy



How are Living Things Grouped?

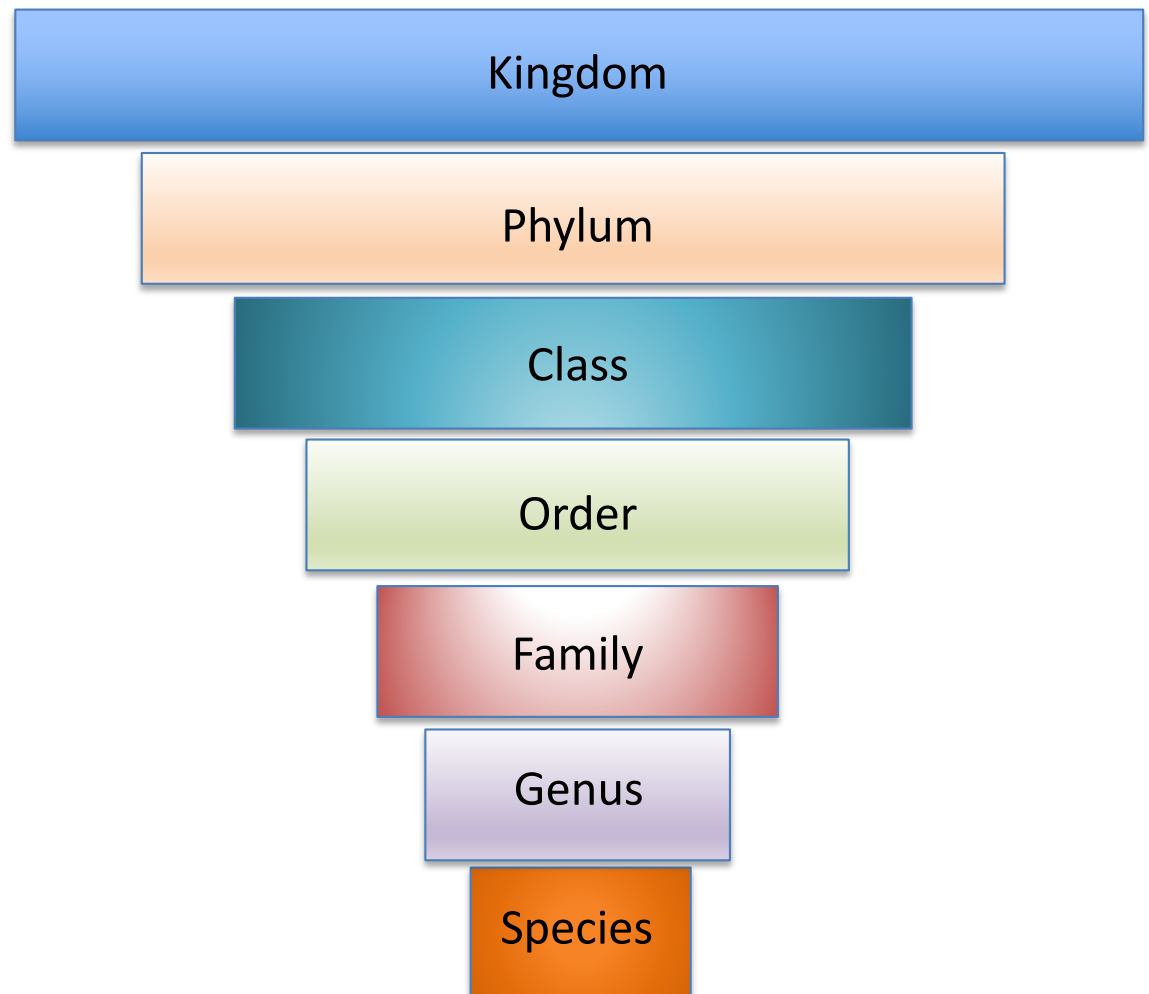
- Organisms are grouped just like objects in library or a grocery store
- _____
- They are then grouped on more specific characteristics such as appearance
- The grouping of living things makes it easier for scientists to study them

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Taxonomy

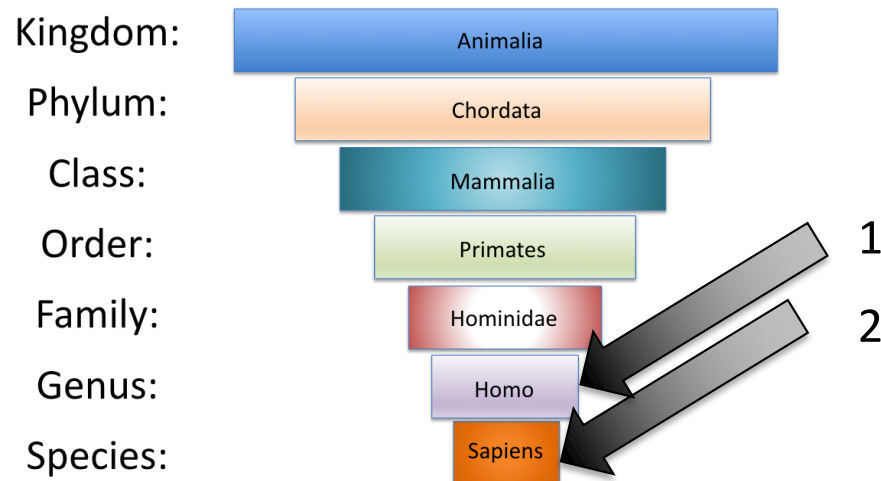
There are 7 levels of taxonomy. Each is more specific than the previous and includes fewer organisms.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____



Naming Organisms

- _____
- Using taxonomy, we can determine the scientific names for any organism
- The first word is the genus and is capitalized, and the second is the species which is not capitalized
- Humans



How Can You Remember? Use a Mnemonic

King → **Kingdom**

Philip → **Phylum**

Coughed → **Class**

On → **Order**

Fred → **Family**

and he

Got → **Genus**

Sick → **Species**



Come up with your own mnemonic

K → **K**ingdom

P → **P**hylum

C → **C**lass

O → **O**rders

F → **F**amily

G → **G**enus

S → **S**pecies

Dichotomous Key

- A dichotomous key is a tool that allows you to determine the _____
- It is called a
- Eventually the correct name is reached

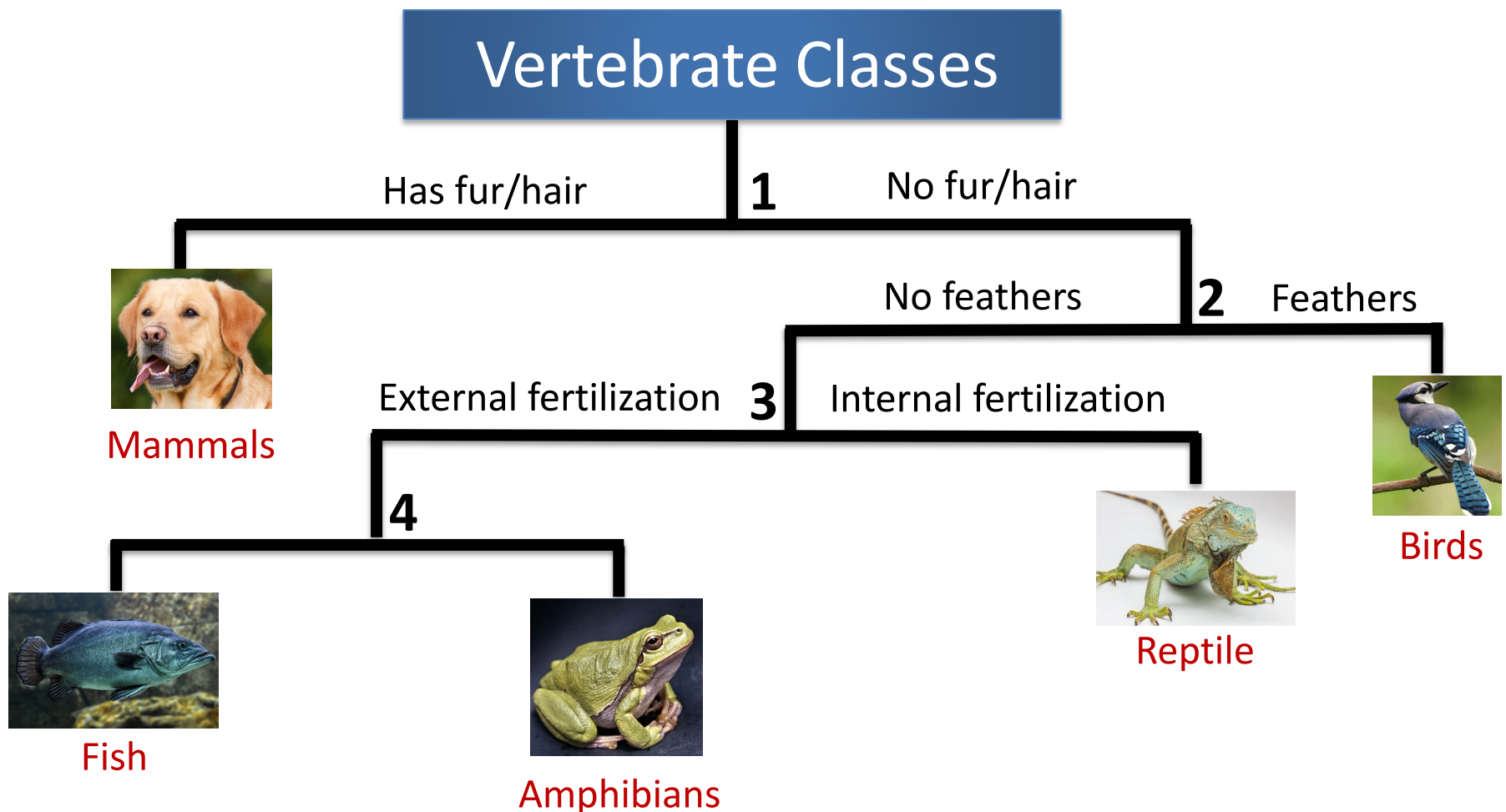


Steps to using a Dichotomous Key

1. Always start at number one.
2. Answer the question and move where you are directed.
3. Each question will only have two possible answers.

Dichotomous Key Example

Vertebrate Classes



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Dichotomous Keys

These keys can be used to identify anything.

Using the example from the previous pages, create your own dichotomous key for something you are interested in.

- Sports
- Movies
- Books
- Animals

Review

1. Biodiversity encompasses all life on Earth.
2. Organisms are classified based on their characteristics.
3. The classification