

Inspiration®

Classification Mind Maps

Subject Areas: Science

Grade Level: 6 – 12 (ages 11-18)

Time: Two 45-minute class periods; time outside of class as necessary

Lesson Objective:

Students will understand the significance of classifying organisms in the Linnaean classification (taxonomic) system and be able to demonstrate an understanding of at least three of the six recognized kingdoms.

Common Core State Standards¹:

College and Career Readiness Anchor Standards for Reading:

Standard 7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

College and Career Readiness Anchor Standards for Writing:

Standard 6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Standard 7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

Overview:

Understanding how the world around them can be organized or classified is an important concept for students. This lesson starts with a general discussion about classification and then moves to a description of scientific classification. Using the Linnaean system, the most widely used classification system in the scientific community, students will develop mind maps as they conduct research on different kingdoms and the organisms classified within them.

Mind maps have an organic appearance, like a tree with many branches. They are quick to create because the structure is always the same and Inspiration's mind mapping tools are efficient to use. With a central trunk (main idea), the thickest branches are main subtopics, and the thinner branches are subtopics of those. These visual cues help students as they mind map prior knowledge and build new knowledge.

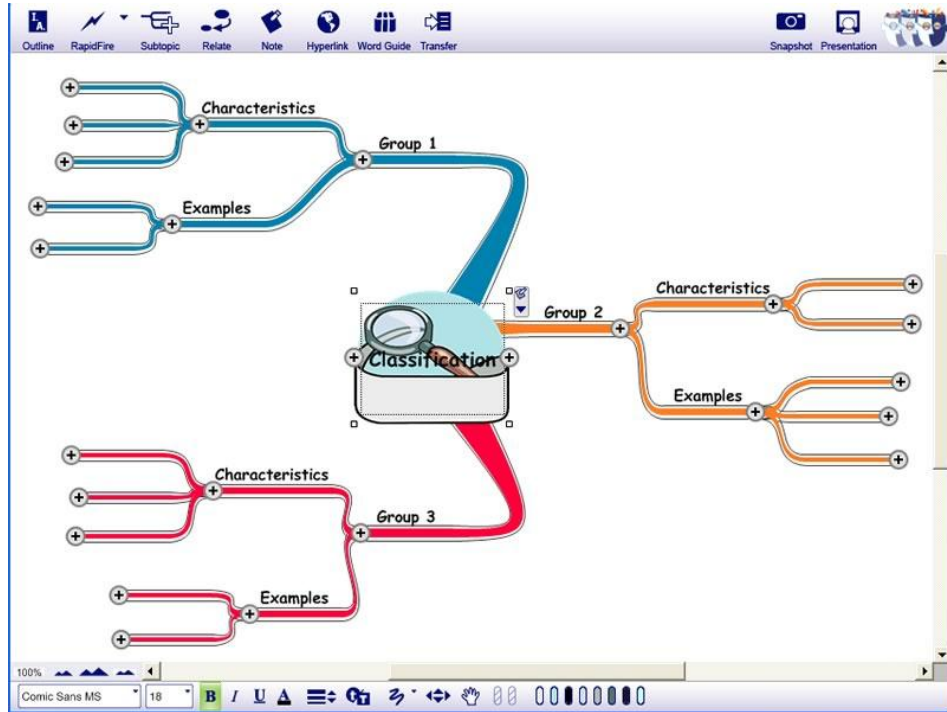
Preparation:

- This lesson requires the Inspiration® software application published by Inspiration Software, Inc. 30-day trials can be downloaded at <<http://www.inspiration.com/Inspiration>>.
- Access to library resources and/or the Internet would also be helpful for student research.

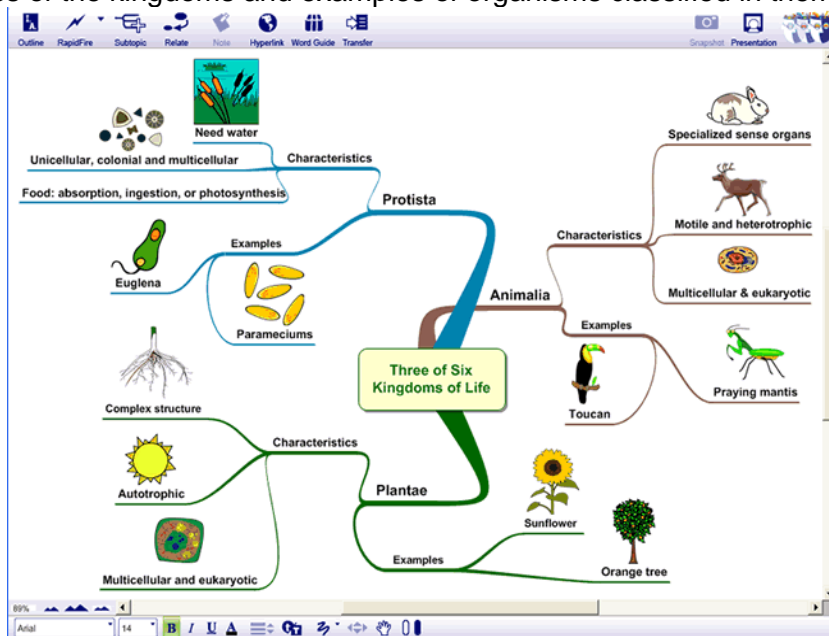
Lesson:

1. Begin by asking students if they know what it means to classify and how they might classify things in their everyday lives. For example, how might they classify forms of writing, nations of the world or types of lab equipment?
2. Open the *Classification* template (**Inspiration Starter>Templates>Science>Classification**) and use it to quickly classify everyday things from one of the categories you discussed. For

example, type “Lab Equipment” in the middle and fill in three categories, such as “protective gear,” “measuring devices” and “energy sources.”



3. Explain that students will be learning about a system for classifying organisms (living things). Tell them that there are different systems for classifying organisms, but that a system originally developed by a scientist named Carl Linnaeus is the most common. Later, scientists expanded upon his original system, to arrive at the six kingdoms of life we have today. Explain that the science of classifying living things is known as taxonomy.
4. Open the example file (**Inspiration Starter>Learn to Use>Examples>Science> Six Kingdoms of Biology**) and tell students that they will be choosing three of the six kingdoms of life to research. They will be preparing mind maps similar to this one that describe characteristics of the kingdoms and examples of organisms classified in them.



5. Have students open the *Classification* template and begin the research process using online sources and/or the library or textbooks. As they gather information, they can use it to complete the mind map.
6. Encourage students to use the **Note** tool and/or switch to **Outline View** to add details.
7. Lead a class discussion about the students' findings. What interesting discoveries did they make? Why is classification very important for scientists?

Adaptations / Extensions:

- Have students gather water samples from a nearby body of water and examine microscopic organisms under a microscope. Research can be conducted to determine what they are and into which kingdoms they would be classified.
- Students can make presentations to the class about their findings. To create a presentation, students can finish their work using the **Presentation Manager**. See the *Creating Oral Presentations I and II* lesson plan for more information about this process. Complete mind maps can also be used as visual aids in **Map View**.
- Students can write an essay about the kingdoms and organisms they identified. They may use the **Transfer** tool to transfer their projects to a word processor and continue the writing process.
- See the *Mind Maps: Tapping Prior Knowledge & Developing Ideas* lesson plan for more details on how to use mind mapping to help your students.

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