

Classification and Six Kingdoms Research Paper

- S7L1 Students will investigate the diversity of living organisms and how they can be compared scientifically.
- Demonstrate the process for the development of a dichotomous key.
- Classify organisms based on a six-kingdom system and a dichotomous key.

Purpose:

- Students will conduct research on modern classification systems and the six kingdoms in order to answer the following essential questions:
 - How would you place all of the organisms in the world if you could only place them in two categories?
 - What affect did Linnaeus have on the modern world?
 - How does our current classification organize all living organisms?

Research Paper

- Students will be expected to complete a 10 paragraph research paper that will address the following topics:
 - Classification
 - Taxonomy
 - Six Kingdoms
- Each student will receive a series of questions to answer for each paragraph of the paper.
- Students are to answer all questions for each paragraph to receive full credit. (See attached rubric)
- This paper will count as a class assessment worth 200 pts.
- **REMEMBER THAT THIS A SCIENTIFIC RESEARCH PAPER! NO OPINIONS ALLOWED! ALL WE WANT IS FACTS!**

Requirements for Paper

- Date Paper was issued/assigned: 01/30/18
- Due Date: 2/2/18 NO EXCEPTIONS!!!
- This assignment have been given as a makeup grade for the Tic-Tac-Toe assignment.
- Paper should be written as follows:
 - Times New Roman
 - 12 pt font
 - Double spaced
 - Black Ink
 - Students are welcomed to work on paper at tutorial.
- **ALL PAPERS MUST BE TYPED!!!! NO EXCEPTIONS!!!!**

Questions for each paragraph

- **Classification (2pts each) 10 pt total**
 - Define Classification
 - What are the benefits to classifying organism?
 - Who was Aristotle?
 - What was his contribution to classification?
 - What two categories were used to classify organisms?

- **Taxonomy (1 pt each) 10 pt total**
 - What is taxonomy?
 - How is the Father of Taxonomy?
 - What did he do differently than Aristotle?
 - Explain the modern classification system.
 - What is a taxon?
 - What is the broadest taxon?
 - What is the most specific taxon?
 - What is binomial nomenclature?
 - What language is used?
 - What two taxons are used?
 - How do you write it?
 - Why do scientist use this naming system used?

- **Archaeobacteria (1 pt each) 11 pt total**
 - Picture
 - What domain do archaeobacteria belong to?
 - What is another name that scientist use to classify these organisms?
 - What are archaeobacteria?
 - What type of cell is it?
 - What is in its cell wall?
 - Number of cells (multi- or single celled)?
 - How does it obtain nutrition?
 - Where does it live?
 - How does it reproduce?
 - What are the three categories of archaeobacteria? Give an example of each.

- **Eubacteria (1 pt each) 11 pt total**
 - Picture
 - What domain do eubacteria belong to?
 - What are eubacteria?
 - What type of cell is it?
 - What is in its cell wall?
 - Number of cells (multi- or single celled)?
 - How does it obtain nutrition?

- Where does it live?
- How does it reproduce?
- What are the three shapes of eubacteria and are they all harmful?
- What are some examples?

- Protista (1 pt each) 11 pt total
 - Picture
 - What domain do protista belong to?
 - What type of cell is it?
 - What is in its cell wall?
 - Number of cells (multi- or single celled)?
 - How does it obtain nutrition?
 - Where does it live?
 - How does it reproduce?
 - What are the three general categories of protista? Give an example of each.
 - Are they mobile? If so, how do they move?
 - What do we call animal like protist?

- Fungi (1 pt each) 11 pt total
 - Picture
 - What domain do fungi belong to?
 - What type of cell is it?
 - What is in its cell wall?
 - Number of cells (multi- or single celled)?
 - How does it obtain nutrition?
 - Where does it live?
 - How does it reproduce?
 - What are some examples of specific fungi?
 - What disease do fungi cause?
 - How are fungi helpful to humans?

- Plantae (1 pt each) 10 pt total
 - Picture
 - What domain do plantae belong to?
 - What type of cell is it?
 - What is in its cell wall?
 - Number of cells (multi- or single celled)?
 - How does it obtain nutrition?
 - Where does it live?
 - How does it reproduce?
 - What are specific types of plantae?
 - How do plantae retain water?
 - Are organisms in this kingdom mobile?

- **Animalia (1 pt each) 11 pt total**
 - Picture
 - What domain do animalia belong to?
 - What type of cell is it?
 - What is in its cell wall?
 - Number of cells (multi- or single celled)?
 - How does it obtain nutrition?
 - Where does it live?
 - How does it reproduce?
 - Are members of this kingdom mobile?
 - What are some of the general categories of organisms in this kingdom?
 - Give an example of each.

- **Conclusion 4 pt total**
 - Compare early classification systems and modern classification systems
 - How are they alike?
 - How are they different?
 - Who contributed to which system?
 - Which had the most impact?

- **Grammar and structure 10 pts**
 - See rubric