**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Classification and Kingdoms Activity**

1. **Scientific Naming - Review how Binomial Nomenclature works from your notes.** Write your name as a scientific name using the ideas of binomial nomenclature. Justify your reasoning…. Explain why you wrote it like that☺

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Explanation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circle the scientific names that are correct. For the names that are incorrect, state how you know.

*Bison bonasus \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

Acer Rubrum \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Escherichia coli \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*E. histolytica \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Fun Facts about scientific naming:**

Examples and descriptions are stated in the Encyclopedia of Entomology. “Species names have been chosen on many different bases. Most common is a naming for the species' external appearance, its origin, or the species name is a dedication for a certain person. Examples would include a bat species named for the two stripes on its back (*[Saccopteryx bilineata](https://en.wikipedia.org/wiki/Saccopteryx_bilineata" \o "Saccopteryx bilineata)*), a frog named for its Bolivian origin (*[Phyllomedusa boliviana](https://en.wikipedia.org/wiki/Phyllomedusa_boliviana" \o "Phyllomedusa boliviana)*), and an ant species dedicated to the actor Harrison Ford (*[Pheidole harrisonfordi](https://en.wikipedia.org/wiki/Pheidole_harrisonfordi" \o "Pheidole harrisonfordi)*).”

The [International Code of Zoological Nomenclature](https://en.wikipedia.org/wiki/International_Code_of_Zoological_Nomenclature) (ICZN) states that "Authors should exercise reasonable care and consideration in forming new names to ensure that they are chosen with their subsequent users in mind and that, as far as possible, they are appropriate, compact, euphonious, memorable, and do not cause offence.

**Create a scientific name for these objects. Consider location, use, physical features, etc. Read some actual scientific names and try to “latinize” the names you create☺**

|  |  |  |
| --- | --- | --- |
| Object | Common Name | Scientific Name |
|  | Pencil |  |
|  | iPhone |  |
|  | Sia’s Wig |  |
|  | Grilled Cheese with Kanye’s Face |  |

1. **Agriscience Connection**
2. Look up the scientific name for the common cow. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Write down the full classification below.

Domain

Kingdom

Phylum

Class

Order

Family

Genus

Species

1. Research and explain why the classification of cows is complicated.
2. Define selective breeding.
3. Explain **how** cattle farmers achieve selective breeding.
4. Explain **why** cattle farmers use selective breeding.
5. **Classification Thinkables**

**Use your knowledge of the classification scheme, the textbook and sources listed below to help answer these questions.** [**http://biology.about.com/od/evolution/a/aa041708a.htm**](http://biology.about.com/od/evolution/a/aa041708a.htm)

[**http://www.ck12.org/section/Modern-Classification-Systems/**](http://www.ck12.org/section/Modern-Classification-Systems/)

1. Why have categories been added to the Classification Scheme over time?
2. What are the three domains of the classification system?

Describe characteristics of each Domain.

1. In Classification there are two types of thought: Lumpers and Splitters. Think about these terms.

Who do you think was glad to have the Domain category added to the scheme.

Explain your thoughts.

1. Why have Kingdoms been added to the Classification Scheme over time?
2. What other hierarchies have you seen in the world around you?

Why is it important to study hierarchies?