

Nova's Nocturnal Nature Classification Keys

Learning objective: To understand how to use and create classification keys to identify living things in the environment.

Use these flashcards to revise the vocabulary and logic required for biological classification. Nova the owl wants you to master these terms to help sort the creatures she sees during her night flights.

What is a classification key?

A tool used to identify living things by asking a series of questions with two possible answers.

What does the term 'dichotomous' mean in a classification key?

It means 'dividing into two parts'. Each step in the key offers two distinct choices.

Explain the difference between a vertebrate and an invertebrate.

A vertebrate has a backbone or spinal column, whereas an invertebrate does not.

Why do scientists use specific characteristics to classify organisms?

To group living things based on shared physical features, which makes it easier to study and identify them.

What is an organism?

Any individual living thing, such as a plant, animal, bacterium, or fungus.

What does a branching key look like?

It is a diagram that splits into different paths based on the 'yes' or 'no' answers provided.

What might happen if you use an inaccurate characteristic in a key?

The key would fail to correctly identify the organism, leading to confusion or an incorrect classification.

Compare and contrast a plant and an animal using classification traits.

Both are living organisms, but animals are typically mobile and consume other organisms, while plants are usually stationary and produce their own food through photosynthesis.

Justify why a classification key must have clear, unambiguous questions.

If a question is vague, two different people might interpret the answer differently, leading to inconsistent results.

Explain why classification is a dynamic, changing process.

As scientists discover more about DNA and genetics, they sometimes reclassify organisms into different groups based on new evidence.