What Is a Dichotomous Key?

Worksheet

A dichotomous key identifies organisms by presenting a series of two-choice (dichotomous) statements about observable traits; following the correct choice at each step narrows down the possibilities until only one species remains.

Questions

1. What is a couplet in a dichotomous key?

A) A single unpaired statement
B) A pair of contrasting either/or statements
C) The final species name
D) A list of all possible species

2. What does choosing a statement in a couplet do?

A) Ends the identification immediately
B) Has no effect on the outcome
C) Directs you to the next couplet or an ID
D) Restarts the key from the beginning

3. Dichotomous keys can be used to identify

A) Only animals
B) Only plants
C) Any organism with observable distinguishing traits
D) Only extinct species

4. If you choose the wrong option at an early couplet, what usually happens?

A) The key automatically corrects itself
B) You still reach the correct species
C) You likely end up at a wrong identification
D) The key stops working entirely

5. A key's first couplet is: 1a) Has feathers go to 2; 1b) No feathers go to 5. Your animal has feathers. What do you do?

6. At couplet 2: 2a) Can fly robin; 2b) Cannot fly ostrich. The bird cannot fly. Identify it.

7. A plant key has 6 couplets before reaching a final ID. If you make one wrong choice at couplet 3, what happens?

8. Define: What is a dichotomous key?

9. Define: What does 'dichotomous' mean?

10. Define: What is a 'couplet' in a key?

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Answer Key

1. B) A pair of contrasting either/or statements - Each step of the key presents two contrasting choices, called a couplet.

2. C) Directs you to the next couplet or an ID - Each choice leads either to another couplet or to a final identification.

3. C) Any organism with observable distinguishing traits - Keys work for plants, animals, fungi and more, based on visible traits.

4. C) You likely end up at a wrong identification - An early wrong choice compounds through later couplets, usually leading to a misidentification.

5. Compare the animal to statement 1a It has feathers, matching 1a Follow the instruction: go to couplet 2

6. Compare the bird to 2a and 2b It matches 2b (cannot fly) Identification: ostrich

7. A wrong choice sends you down the wrong branch of the key Each later couplet then compares against the wrong traits The final identification will likely be incorrect, so you must double-check traits at each step

8. A tool that identifies organisms through a series of paired either/or choices called couplets.

9. Divided into two parts - each step offers exactly two contrasting options.

10. A pair of contrasting statements at one step of the key.

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