

# DICHOTOMOUS KEY

INTRODUCTION: Once plants and animals have been assigned by scientists to certain families, how do you figure out their names or species? This is done by using a device called an **identification key**.

OBJECTIVE: In science, organisms are identified and classified according to characteristics that they possess. These characteristics may be either similar to or different from those of other organisms. When differences are observed so that the presence or absence of a characteristic determines which category the organism (or object) falls into, the identification tool is called a **DICHOTOMOUS KEY**. In this activity, we will use a **DICHOTOMOUS KEY** to give household items nonsense names.

PROCEDURE: 1. For **each** item provided, **start with description #1a and #1b**. 2. Follow the instructions at the end of the line of the description that fits your item until the end of the line provides a name for that item. 3. In the space provided on the answer sheet beside each nonsense name, write the actual name of the household item.

- |  |                                  |       |
|--|----------------------------------|-------|
| 1a. Object is partly or completely made of metal | Go to 2                          |       |
| 1b. Object has no metal on it                    | Go to 16                         |       |
| 2a. Object has nonmetal parts                    | Go to 3                          |       |
| 2b. Object is completely made of metal           | Go to 5                          |       |
| 3a. Object is less than 10 cm in length          | <b>Whippersnapper</b>            | _____ |
| 3b. Object is 10 cm or greater in length         | Go to 4                          |       |
| 4a. Object is pointed at one end                 | <b>Tapered Doodad</b>            | _____ |
| 4b. Object is not pointed at one end             | <b>Common Doodad</b>             | _____ |
| 5a. Object is greater than 10 cm                 | Go to 6                          |       |
| 5b. Object is 10 cm or less                      | Go to 9                          |       |
| 6a. Object has a twisted area                    | <b>Thingamajig</b>               | _____ |
| 6b. Object has no twisted area                   | Go to 7                          |       |
| 7a. Object has three or more prongs              | <b>Left-handed Monkey Wrench</b> | _____ |
| 7b. Object has no prongs                         | Go to 8                          |       |
| 8a. Object has a cutting edge                    | <b>Geegaw</b>                    | _____ |
| 8b. Object has no cutting edge                   | <b>Scooperdoo</b>                | _____ |
| 9a. Object has spiral grooves                    | Go to 10                         |       |
| 9b. Object has no spiral grooves                 | Go to 11                         |       |
| 10a. Object has a hole                           | <b>Cashew</b>                    | _____ |
| 10b. Object has no hole                          | <b>Whatsit</b>                   | _____ |
| 11a. Outside edge is a circle                    | Go to 12                         |       |
| 11b. Outside edge is not a circle                | Go to 13                         |       |
| 12a. Object is silver-colored                    | <b>Quinto</b>                    | _____ |
| 12b. Object is not silver-colored                | <b>Uno</b>                       | _____ |

13a. Object is silver-colored	Go to 14	
13b. Object is not silver-colored	Go to 15	
14a. Object is less than 4 cm in length	<b>Micro-Whatnot</b>	_____
14b. Object is 4 cm or more in length	<b>Macro-Whatnot</b>	_____
15a. Object is brass-colored	<b>Skyhook</b>	_____
15b. Object is not brass-colored	<b>Dingus</b>	_____
16a. Object is white	Go to 17	
16b. Object is not white	Go to 24	
17a. Object has holes	<b>Wadget</b>	_____
17b. Object has no holes	Go to 18	
18a. Object has a circle in at least one dimension	Go to 19	
18b. Object is not a circle in any dimension	Go to 20	
19a. The circumference of the circular dimension is 6cm or less	<b>Bric-A-Brac</b>	_____
19b. The circumference of the circular dimension is greater than 6cm	<b>Roundabout</b>	_____
20a. Object is made of plastic	Go to 21	
20b. Object is not made of plastic	Go to 23	
21a. Object has 3 or more prongs	<b>Doohickey</b>	_____
21b. Object has no prongs	Go to 22	
22a. Object has a cutting edge	<b>Gismo</b>	_____
22b. Object does not have a cutting edge	<b>Flim Flam</b>	_____
23a. Object appears to have a string running through its center	<b>Wickey</b>	_____
23b. Object does not appear to have a string running through its center	<b>Scrubadub</b>	_____
24a. Object is made of plastic	Go to 25	
24b. Object is not made of plastic	Go to 28	
25a. Outer edge of the object is round	Go to 26	
25b. Outer edge of the object is not round	<b>Whatchamacallit</b>	_____
26a. Object has holes	Go to 27	
26b. Object has no holes	<b>Spinaroo</b>	_____
27a. Object has 2 holes	<b>Bihole</b>	_____
27b. Object has 4 holes	<b>Tetrahole</b>	_____
28a. Object is made of glass	<b>Seethru</b>	_____
28b. Object is not made of glass	Go to 29	
29a. Object is yellow in color	<b>Screecher</b>	_____
29b. Object is not yellow in color	<b>Soaky</b>	_____