

# Nailing Cladistics

## NOVA Activity **The Missing Link**

Cladistics is one way scientists classify organisms. A cladogram shows the nature of evolutionary relationships that may have occurred, similar to a family tree. You will make a cladogram in this activity.

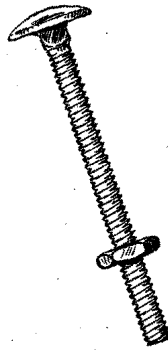
### Procedure

#### Part I

- ① Display your set of hardware organisms and match each one to the organisms listed on your *Hardware Organism Key* activity sheet. Make sure you have all the organisms listed.
- ② Classify your hardware organisms into groups. On a separate sheet of paper, make a record of your classifications, listing the letter for each organism you have classified. Then list the common characteristics of each of your groups.

#### Part II

- ① You will now use a different method to classify your organisms. Follow the instructions on the *Cladogram Basics* activity sheet to create your cladogram.
- ② After you have created and revised a rough draft of your cladogram, create a final version to share with the class.
- ③ When you have completed your cladogram, answer the questions.



### Questions

*Write your answers on a separate sheet of paper.*

- ① Compare your cladogram with others in the class. Will all correct cladograms be the same? Why or why not?
- ② Compare cladistics with the more traditional taxonomy that you did in the Part I of the lesson. How do they differ? What are the advantages and disadvantages of each method?

