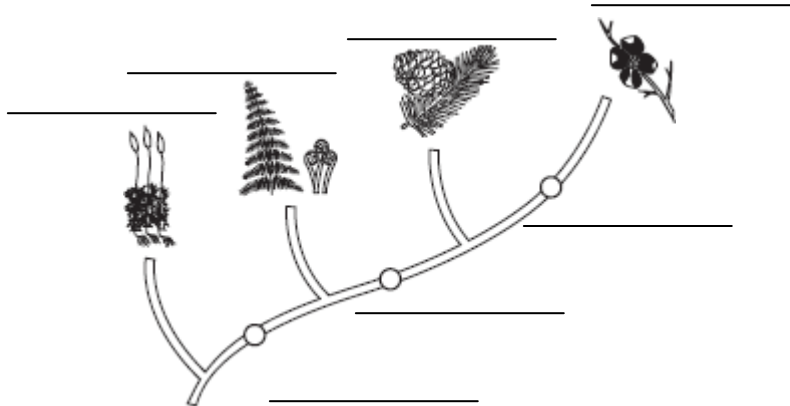


## Inquiry Into Scientific Thinking

**Constructing a Cladogram** Cladograms organize living things by how closely related they are. A cladogram includes common ancestors and all of their descendants.

1. Look at the table of plants and their traits below.
2. Write the plant names where they belong on the cladogram.
3. Write the derived characteristics next to the correct circles on the cladogram.

Plants	Derived Characteristics		
	Water-Conducting Tissue	Seeds	Flowers
Cone-bearing plant	present	present	absent
Ferns	present	absent	absent
Mosses	absent	absent	absent
Flowering plants	present	present	present



### Analyze and Conclude

1. What trait was present in the most organisms? \_\_\_\_\_
2. Which trait was present in the fewest organisms? \_\_\_\_\_
3. Which plant lacks water-conducting tissue? \_\_\_\_\_
4. Which of the following pairs of plants are more closely related? Circle your answer.  
 mosses and flowering plants                      cone-bearing and flowering plants
5. A plant called a horsetail has no seeds, but it does have water-conducting tissue. Where would you place it on the cladogram above? \_\_\_\_\_