

# **Organizing Embryos**

### Activity

When looking at a variety of adult animals, clear differences stand out. Even among rodents, for example, a squirrel can easily be identified from a beaver. In their early stages of growth, however, animals can look very similar. As development continues, the embryonic traits become more and more different. That is, we ultimately diverge into distinctive species.

Analyze sets of cards that show different stages in embryonic development of different types of animals. Use the clues provided in the cards to create a cladogram that shows at what point divergence in the characteristics occurs.



#### Procedure

- 1. Each group will receive a set of Embryonic Development Cards. Each symbol on the cards represents a different type of organism and shows its development at five different stages.
- 2. Use the table to record your data.

Symbol	Animal	Stage				
		1	2	3	4	5
6						
$\bigcirc$						





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### Activity, continued

- 3. Lay out all of the cards and review their content. Sort the cards by their symbols. Determine the chronological order of development for each set of cards. Complete the data table based on your analysis; you will fill in the Animal name later.
- 4. Starting at the bottom open circle, list the common characteristic of that continuing stem. For the animal that diverged from the stem, write its name and draw its symbol at the end of the diverging branch. Continue until all open circles and branch ends are labeled.
- 5. When you receive the Identity Cards, match each symbol with its Animal. Write in each name in its corresponding spot in the data table and on the cladogram below.



