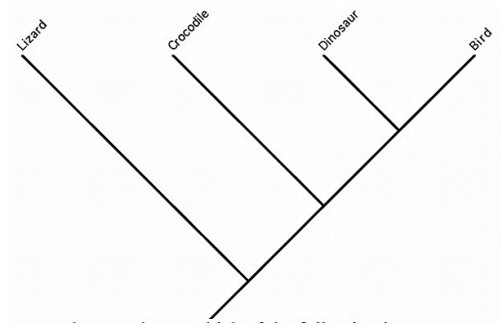


**Clicker Questions**

1. By reference to the tree below, which of the following is an accurate statement of relationships?

- A. A crocodile is more closely related to a lizard than to a bird
- B. A crocodile is more closely related to a bird than to a lizard
- C. A crocodile is equally related to a lizard and a bird
- D. A crocodile is related to a lizard, but is not related to a bird

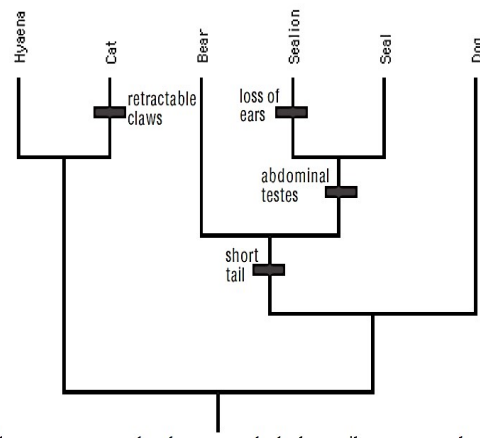


2. A molecular biologist studying fungi discovers a gene family that is similar to a fruit-fly gene family. If she wants to determine whether the fungi and fruit-fly gene families are homoplastic or homologous, she should:

- A. Determine whether the functions of the gene families are similar in fungi and insects.
- B. Sequence some other fungi and fruit-fly gene families.
- C. See if organisms in lines that branched off between fungi and insects have similar gene families.
- D. Determine whether any bacteria have similar gene families.

3. In the tree below, assume that the ancestor had a long tail, ears, external testes, and fixed claws. Based on the tree and assuming that all evolutionary changes in these traits are shown, what traits does a seal have?

- A. long tail, ears, external testes, and fixed claws
- B. short tail, no ears, external testes, and fixed claws
- C. short tail, no ears, abdominal testes, and fixed claws
- D. short tail, ears, abdominal testes, and fixed claws
- E. long tail, ears, abdominal testes, and retractable claws



4. Which of the 4 trees below depicts a different pattern of relationship than the others?

- A. Tree A
- B. Tree B
- C. Tree C
- D. Tree D

