

## 17.3 and 17.4

### Isolating Mechanisms

1. What is speciation?

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2. What does it mean for two species to be reproductively isolated from each other?

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3. What must happen in order for a new species to evolve?

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4. List three ways that reproductive isolation occurs.

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5. When does behavioral isolation occur?

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6. When does geographic isolation occur?

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7. What is an example of temporal isolation?

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8. Suppose a seamount forms from an underwater volcano. Birds on the mainland colonize the island. How might this lead to speciation?

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## Timing Lineage Splits: Molecular Clocks

1. What is a molecular clock?

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2. Why are only neutral mutations useful for molecular clocks?

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**3.** Why are there many molecular clocks in a genome instead of just one?

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**9.** What genetic factors might be responsible for a change in an organism's body plan?

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