Blue Impact: Coral
Extension Questions

QUESTIONS

1. The algae, which are producers, use photosynthesis to create their own food. Write the equation for photosynthesis.

2. The coral, a consumer, uses respiration to live. Write the respiration equation.
3. Define the following types of symbiosis.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mutualism</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Commensalism</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Parasitism</strong></td>
<td></td>
</tr>
</tbody>
</table>

4. What type of symbiosis do coral and algae have?
   a. mutualism
   b. commensalism
   c. parasitism
   d. none of the above
This video can be used as an extension to Photosynthesis and Respiration and Ecology units.

**QUESTIONS**

1. The algae, which are producers, use photosynthesis to create their own food.
   Write the equation for photosynthesis.

   ![Light Energy]
   
   Water + Carbon Dioxide $\rightarrow$ Oxygen + Water + Sugar (Glucose)
   
   $H_2O + CO_2 \rightarrow O_2 + H_2O + C_6H_{12}O_6$
   
   $12H_2O + 6CO_2 \rightarrow 6O_2 + 6H_2O + C_6H_{12}O_6$

2. The coral, a consumer, uses respiration to live. Write the respiration equation.

   Oxygen + water + sugar (glucose)$\rightarrow$ water + carbon dioxide
   
   $O_2 + H_2O+ C_6H_{12}O_6 \rightarrow H_2O + CO_2$
   
   $6O_2 + 6H_2O + C_6H_{12}O_6 \rightarrow 2H_2O + 6CO_2$

3. Define the following types of symbiosis.

<table>
<thead>
<tr>
<th>Symbiosis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutualism</td>
<td>A relationship between two individuals where both individuals benefit from the relationship (+/+); example: coral and algae both provide something that other needs to survive</td>
</tr>
<tr>
<td>Commensalism</td>
<td>A relationship between two individuals where one individual benefits and the other is not harmed or improved (+/-); example: remora fish and sharks—remora get an easy ride and meal and they do not effect the shark</td>
</tr>
<tr>
<td>Parasitism</td>
<td>A relationship between two individuals where one individual is harmed while the and the other benefits (+/-); example: intestinal worms in whales—the whale is harmed by the worm while the worm benefits from living inside the whale’s digestive, where it gets food and protection</td>
</tr>
</tbody>
</table>
4. What type of symbiosis do coral and algae have?

   a. mutualism
   b. commensalism
   c. parasitism
   d. none of the above

**DISCUSSION QUESTIONS**
You can use these Ecology discussion prompts in your classroom along with this video.

- Coral reefs are one of the worlds most biodiverse ecosystems.
- Define biodiversity.
- What regions of the world are the most biodiverse?
- What could threaten biodiversity?
- Why is biodiversity important?