

Investigation 2 – Nutrient Systems

Short Answer Response Quiz Prep - Be prepared to answer the questions below. The quiz will be any of the questions below.

<u>Question:</u>	<u>Possible Response:</u>
<ul style="list-style-type: none">What kind of organism is yeast?	<i>Yeast is a single-celled fungus.</i>
<ul style="list-style-type: none">What does yeast need to break out of a dormant state?	<i>Sugar</i>
<ul style="list-style-type: none">How do yeast organisms get their nutrients?	<i>They absorb them through their cell membrane.</i>
<ul style="list-style-type: none">Where did the carbon-dioxide gas come from in the yeast experiment?	<i>When the yeast breaks sugar down for energy, the gas is given off as a waste product.</i>
<ul style="list-style-type: none">What raw materials do plants need to build sugar molecules? Where do those materials come from?	<i>Carbon-dioxide from the air, water from the soil through its roots, and energy from the Sun in the form of light.</i>
<ul style="list-style-type: none">What is the role played by chlorophyll?	<i>It reflects green light and absorbs red and blue light. This light is used by the plant to make food (sugar) through a process called photosynthesis.</i>
<ul style="list-style-type: none">What are the products of photosynthesis? Where do they go?	<i>The products are oxygen and water which are released into the air. The sugar is transported to other parts of the plant as food for the plant's cells.</i>
<ul style="list-style-type: none">How are plants different in light and dark environments?	<i>Plants growing in light environments are green; plants growing in dark environments are yellow.</i>
<ul style="list-style-type: none">What does the color difference suggest?	<i>The cells of the plants in the light environment contain chlorophyll that is why they are green ; the cells in the dark environment do not contain chlorophyll, that is why they are yellow.</i>

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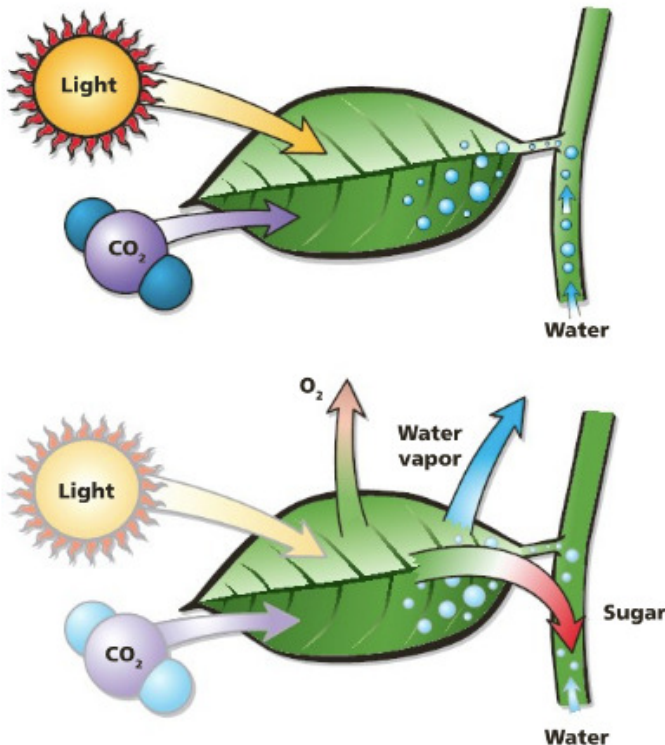
Question:

- Plants need energy to grow. Where does energy that the wheat plants need to grow in dark environments come from?
- How do plants and yeast differ in how they get their food?

Possible Response:

From energy nutrients stored in the seed in the form of starch.

Yeast gets food (sugar) produced by other organisms and absorbs it; green plants make their own food from air, water, and light.



- Describe what this diagram shows.

The process of photosynthesis. Water from the roots, carbon dioxide from the air, and light from the Sun enter plant cells. They all combine to make sugar that feeds the plant. Plants give off oxygen and water vapor as waste products into the air.