 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Use lab tests on variegated leaves to show that chlorophyll is essential for photosynthesis.



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| --- | --- | --- | --- | --- |
| Know | |  | Apply  1  2 | |
| Ideas | |  |  |  |
| K1 | Plants and algae do not eat, but use energy from light, together with carbon dioxide and water to make glucose (food) through photosynthesis. They either use the glucose as an energy source, to build new tissue, or store it for later use. |  | A1 | Describe ways in which plants obtain resources for photosynthesis. |
| A2 | Explain why other organisms are dependent on photosynthesis. |
| A3 | Sketch a line graph to show how the rate of photosynthesis is affected by changing conditions. |
| K2 | Plants have specially-adapted organs that allow them to obtain resources needed for photosynthesis. |  | A4 | Use a word equation to describe photosynthesis in plants and algae. |
|  | |  |  |  |
| Facts | |
| K3 | Iodine is used to test for the presence of starch. |  |  |  |
|  | |  |  |  |
| Key words | |
| K4 | **Fertilisers:** Chemicals containing minerals that plants need to build new tissues. |  |  |  |
|  |
| K6 | **Photosynthesis:** A process where plants and algae turn carbon dioxide and water into glucose and release oxygen. |  |  |  |
|  |
| K7 | **Chlorophyll:** Green pigment in plants and algae which absorbs light energy. |  |  |  |
| K8 | **Stomata** Pores in the bottom of a leaf which open and close to let gases in and out. |  |  |  |
|  |
| 3 | Extend |  |  |  |
| E1 | Suggest how particular conditions could affect plant growth. |  |  |  |
| E2 | Suggest reasons for particular adaptations of leaves, roots and stems. |  |  | |
| E3 | Compare the movement of carbon dioxide and oxygen through stomata at different times of day. |  |  |  |
| E4 |  |  |  |  |
|  |  |  |  |  |
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|  |  |  |  |  |
| E5 |  |  |  | |
|  |  |  |  | |
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