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

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



Use data from investigating fermentation with yeast to explore respiration.



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| --- | --- | --- | --- | --- |
| Know | |  | Apply  2  1 | |
| Ideas | |  |  |  |
| K1 | Respiration is a series of chemical reactions, in cells, that breaks down glucose to provide energy and form new molecules. Most living things use aerobic respiration but switch to anaerobic respiration, which provides less energy, when oxygen is unavailable. |  | A1 | Use word equations to describe aerobic and anaerobic respiration. |
|  |  | A2 | Explain how specific activities involve aerobic or anaerobic respiration. |
|  |  |
|  | |  |  |  |
| Facts | |
| K3 | Yeast fermentation is used in brewing and bread-making. |  |  |  |
|  | |  |  |  |
| Key words | |
| K4 | **Aerobic respiration:** Breaking down glucose with oxygen to release energy and producing carbon dioxide and water. |  |  |  |
|  |
| K5 | **Anaerobic respiration (fermentation):** Releasing energy from the breakdown of glucose without oxygen, producing lactic acid (in animals) and ethanol and carbon dioxide (in plants and microorganisms). |  |  |  |
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|  |  |  |  |  |
| 3 | Extend |  |  |  |
| E1 | Suggest how organisms living in different conditions use respiration to get their energy. |  |  |  |
|  | |
| E2 | Describe similarities and differences between aerobic and anaerobic respiration. |  |  |  |
| E3 |  |  |  |  |
|  |  |  |  | |
|  |  |  |  | |
|  |  |  |  | |
| E4 |  |  |  | |
|  |  |  |  | |
|  |  |  |  | |