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| **What will we be learning?**  Respiration | **Why this? Why now?**  Previous Learning  Cells, Breathing, Digestion  Future Learning  GCSE- Cells, Organisation, Bioenergetics  Enquiry Processes  Analyse patterns, draw conclusions, present data, collect data, communicate ideas. | **Key Words:**  Aerobic  Anaerobic  Fermentation  Glucose  Yeast  Lactic Acid  Carbon Dioxide  Ethanol  Oxygen  Water  Energy  Mitochondria/Mitochondrion |
| **What will we learn?**   * Respiration is a series of chemical reactions, in the mitochondria of plant and animal cells, that breaks down glucose to provide energy and form new molecules. * Most living things use aerobic respiration to release energy. * Anaerobic respiration provides energy when oxygen is unavailable- this can produce lactic acid or ethanol. * Fermentation is a type of anaerobic respiration in micro-organisms and we can make use of the products of this reaction.   **Misconceptions in this topic**  Respiration is not breathing. Breathing (ventilation is the mechanical process of getting air in and out of the lungs.  Respiration is a chemical reaction in the mitochondria of cells.  Energy cannot be made. It is released or converted from one form into another | |
| **What opportunities are there for wider study?**  Careers  Doctor Nurse Physiotherapist Sports Scientist Biochemist  STE(A)M  https://highcliffe.sharepoint.com/sites/LearnSTEM | |
| **How will I be assessed?**  End of topic assessment | |