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| **What will we be learning?**Respiration | **Why this? Why now?** Previous LearningCells, Breathing, DigestionFuture LearningGCSE- Cells, Organisation, BioenergeticsEnquiry ProcessesAnalyse patterns, draw conclusions, present data, collect data, communicate ideas. | **Key Words:**AerobicAnaerobicFermentationGlucoseYeastLactic AcidCarbon DioxideEthanolOxygenWaterEnergyMitochondria/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?**CareersDoctor Nurse Physiotherapist Sports Scientist BiochemistSTE(A)M https://highcliffe.sharepoint.com/sites/LearnSTEM |
| **How will I be assessed?** End of topic assessment  |