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| **What will we be learning?**  Apple with solid fill  **Gravity** | **Why this? Why now?**  Previous Learning  Key stage 2 Science  Speed  Future Learning  Current, Voltage and Resistance, Energy transfers and Energy costs  Enquiry Processes  Identify variables, Collect data, Present data, Analyse Patterns, Draw conclusions, Justify opinions and conclusions | **Key Words:**  Mass  Weight  Centripetal  Gravity  Force |
| **What will we learn?**  Calculate weight using W=mg  Describe how weight varies on a journey to the moon  Explain unfamiliar observations where weight changes  Suggest implications, of how gravity varies, for a space mission  Describe how gravitational force is affected by distance  Draw forces diagrams involving gravity  Compare weight on Earth to other planets using the equation  Draw conclusions from data about orbits  Describe the difference between mass and weight  Describe how mass and weight is affected by gravity  Deduce how gravity varies for different masses/distances  Compare and contrast gravity with other forces  **Misconceptions in this topic**  Mass and weight are the same  Weight and mass units mixed  There is no gravity in space  Gravity increases with height.  Gravity cannot exist without air.  There is a definite up and down in space. | |
| **What opportunities are there for wider study?**  Careers - Engineer, Astronaut, Astrophysicist, Aero-Engineer, Marine Engineer  STE(A)M – For details of courses and opportunities look at:  <https://highcliffe.sharepoint.com/sites/LearnSTEM> | |
| **How will I be assessed?**  **End of topic assessment** | |