

## Year 7

### Design & Technology

**The Universe**  
Solar System  
Day, Night & Seasons  
Craters  
Exploration

**Circuits**  
Circuit Diagrams  
Conductors & Insulators  
Current & Voltage  
Series & Parallel

**Resultant Forces**  
Hooke's Law  
Friction  
Pressure  
Balanced & Unbalanced Forces  
Moments  
Terminal Velocity

**Energy Stores**  
Burning & Energy Food  
Conservation Of Energy  
Kinetic & Gravitational Potential Energy

**Working Scientifically**  
Working Safely  
Units & Conversions  
Mean & Range  
Variables  
Graphs



Knowledge	Attributes / Character	Skills	Experiences
<p>Working Scientifically Density Energy Stores Resultant Forces Circuits The Universe</p>	<p><b>Confidence</b> Students will encounter and experience a variety of new knowledge and resources through a scaffolded approach. Helping to build fluency and confidence.</p> <p><b>Organisation</b> Students must work collaboratively in a group during projects and practicals. They need to communicate effectively to ensure outcomes are met. Homework is set on a regular basis and helps reinforce the knowledge students have learnt, students need to ensure it is complete in a timely manner. When students study density, they will come across many misconceptions. These will be challenged, in order to help students understand the concept.</p> <p><b>Resilience</b> When working with circuits, students will need to identify and correct problems, which prevents the current from flowing.</p> <p><b>Empathy</b> Understanding the amount of work/time that goes into developing new theories which need to be peer reviewed.</p>	<p>Draw and label equipment Draw and interpret line graphs, pie charts and bar charts Follow methods Identify variables Use scientific equipment Use of simple algebraic formulas Use scientific vocabulary through writing and oracy</p>	<p>Science club Big Bang Fair visit Design a model solar system Electric maze game British Science Week Formula 1 links Design and technology links Science Trust Quiz</p>