

Year 4 Summer 2 Computing/ Design and Technology- Gears and Robotics

Learning objectives	Key vocabulary	Useful websites to search for
<p>To understand and use mechanical systems in products [for example, gears, pulleys, cams, levers and linkages]</p> <p>To apply understanding of computing to program, monitor and control their products using inputs and sequencing.</p> <p>To tinker with code to explore.</p>	<p>Algorithm - Steps to follow to achieve a task</p> <p>Debugging- Finding and correcting errors</p> <p>Flowchart - One way of representing algorithms is to use flow charts, also called flow diagrams. They are a useful way of planning how a computer program might work, and show others your thinking.</p> <p>Gears- Gears are wheels with teeth that slot together. ... If the gears are of different sizes, they can be used to increase the power of a turning force. The smaller wheel turns more quickly but with less force, while the bigger one turns more slowly with more force.</p> <p>Logical steps –Using rules to solve problems</p> <p>Programming - Instructions written in a language (code) computers can understand.</p> <p>Robot- A robot is just a computer that can perform a series of complex tasks automatically. Robots use a central computer to process information, as well as input and output devices to react and to carry out tasks.</p> <p>Sensors- Computers and sensors can be used to control conditions in lots of different places. You might have sensors in your home to control the lights. When light sensors detect that it is dark outside a computer can instruct the lights in your driveway to switch on.</p> <p>Sequencing- A set of instructions that are followed in order.</p>	<ul style="list-style-type: none"> • KS2 Computing BBC Bitesize <ul style="list-style-type: none"> • The School Run KS2 Computing • Knex Fun and Games
		