| Caroline Haslett Primary School - DT | | |
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| **Topic: Mechanics** | **Year 5** | **Moon Buggy** |

**Knowledge**

- The Lunar Rover Vehicle (LVR) was a battery powered four wheeled rover used on the moon during the last three missions of the American Apollo programme (15, 16 and 17). It could carry one or two astronauts with their equipment and samples.
- A circuit is a complete path around which electricity can flow. It must include a source of electricity such as a battery.
- The wheel and axle rotate together to allow the transfer of force to move a load.
- A chassis is the base of a car, carriage, or other wheeled vehicle.

**Vocabulary**

- **Axle** - a rod which passes through the centre of a wheel (fixed or rotating)
- **Chassis** - a load bearing frame
- **Dowel** - a cylindrical rod
- **Mechanism** - a system that transforms input forces and movement into a desired output forces/movement.
- **Motor** - a machine that gives power for another device with moving parts.
- **Component** - a part of a machine or vehicle.
- **Prototype** - a model that designers generate ideas from.
- **Annotated diagram** - a descriptive diagram which highlights specific features.

**Design, make, evaluate**

1. Respond to the question ‘what is a Lunar Rover’, draw annotated diagrams.
2. Build a prototype using identified features and create an annotated diagram.
3. Design following criteria.
4. Make applying skills.
5. Evaluate against design criteria. Does your Lunar Rover incorporate all features; is it a moving vehicle using an electrical circuit?

**Skills**

- Cut materials with precision.
- Finish with appropriate tools, such as sandpaper.
- Create a circuit that employs a number of components including a motor.