4×4 in Schools

Are you interested in vehicles and understanding how modern technology works?

Do you have a passion for electronics, coding, robotics and 3D design?

The Land Rover 4×4 Technology Challenge develops student skills in the practical application of various scientific principles through the design and manufacture of a 4WD vehicle that needs to successfully navigate and complete obstacles on a realistic off-road test track. The challenge allows students to take responsibility for their learning, collaborate effectively and use peer support to accomplish goals. Students develop critical and creative thinking skills to resolve complex problems, review progress and discuss possible solutions.

Students work collaboratively in a team to set and achieve short term goals. They develop an action plan which, by explaining a range of suggested strategies, details how these goals will be met. Through the challenge, students gain an understanding of and experience first-hand how to analyse a design brief, produce and read industrial drawings, select suitable materials and components for a product, create a production plan and use equipment to make an engineered product.

Students develop a realistic understanding of what engineering involves and investigate important industry operations such as ICT in engineering, the range of modern materials and control technology.

Assessment

Folio (written and practical)

Design process (investigating, planning, producing, evaluating)

Practical projects

Subject Length

1 semester

Additional Information

N/A