



Curriculum

The process of students actively building, exploring, investigating, enquiring and communicating together develops a vast range of benefits. Here is an overview:

Science

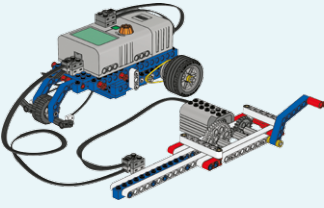
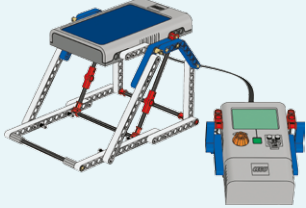
Investigating the collection, storage and transfer of energy; measuring force and speed, and exploring the effect of friction; investigating simple machines, developing scientific fair testing, pursuing purposeful enquiry, predicting and measuring, collating data and drawing conclusions.

Design and technology

Designing, making (building), testing and evaluating model solutions to match real needs; choosing appropriate materials and processes; exploring systems and subsystems that transform and transfer energy; using two-dimensional instructions to develop technical understanding; identifying technical components to create three-dimensional working models and working collaboratively in a team.

Mathematics

Using mathematics in the service of science and technology; measuring distance, time and mass, calculating speed (velocity), and weight and efficiency; using graphical means to present predictions and measurements, tabulating and interpreting data, and informally calculating ratios.

	Hand Generator 	Solar Station 
Science curriculum:	<ul style="list-style-type: none"> • Consider evidence from observations, and experiment using 'distance travelled' as a measure of performance • Transfer, transformation, storage and dissipation of energy with reference to conversion of kinetic energy to electrical energy 	<ul style="list-style-type: none"> • Consider evidence from observations, and experiment using 'average voltage and current' as a measure of performance • Transfer, transformation, storage and dissipation of energy with reference to conversion of solar energy to electrical energy
Design and technology curriculum:	<ul style="list-style-type: none"> • Construct with components • Investigate and predict effect of gearing systems on generator performance 	<ul style="list-style-type: none"> • Construct with components • Investigate and predict the effect of angles of illumination on Solar Panel performance
Mathematics curriculum:	<ul style="list-style-type: none"> • Present investigation and prediction data graphically • Applications of ratio and proportion 	<ul style="list-style-type: none"> • Present investigation and prediction data in tabular form • Using bearings