



Fairground Controllers Workshop

Lesson Outcomes:

1. To use simple algorithms and sequences
2. To use a variety of sequences to control a fairground ride
3. To create a programming sequence of your own and rotate a fairground ride.

About:

Fairground Controllers is designed for KS2 pupils and allows them to explore various mechanisms and build a rotating ride using various Technic LEGO® bricks. Using the LEGO® Education WeDO software, pupils use drag and drop coding to explore and create various sequences. This allows them to control their fairground ride and complete numerous challenges. Pupils work in pairs for this task and we provide our own laptops for pupils to work on.

National Curriculum Links:

COMPUTING - Key Stage 2

* Using LEGO We Do software pupils will design a program to rotate a ride

*Pupils will have to follow algorithms to solve various challenges

*Pupils will have to select the correct information to input into the computer and will be asked to look at the outputs

This also links to the science curriculum as students will explore the effect of forces using pulleys and gears. Pupils will learn how using mechanisms allow a smaller force to have a greater effect.

This also links to the design and technology curriculum as students build a model which uses a mechanical system.

Differentiation:

1. Younger pupils or less able pupils within each KS2 year group are given close support and clear step-by-step instructions for building mechanisms and fairground rides.
2. Older or more able pupils work more independently and are given worksheets with instructions and diagrams.
3. Those who finish the set tasks quickly use the 'We do' software and coding to carry out more challenging tasks.