Title: Fairground Forces	Project overview	Hook	English overview:	Maths overview
Year group: 5 term 1A	Children will look into a range of forces and apply this knowledge to create their own fairground rides. In this project the children will learn about the impact different forces have around us. They will understand how they affect our daily lives and how they control important mechanisms within the modern world. Children will understand how shape/weight can affect a force.	Harwell Park	Grammar embedding Poetry: Cinquain November Night- Adelaide Crapsey Snow Winter- Adelaide Crapsey Guided Reading: There's a Boy in the Girls' Bathroom Louis Sacher	Place value Addition and Subtraction Statistics Data Handling
Driving question	Key Vocabulary	Intended outcome		
If we can't see it, does it exist?	Gravity, water resistance, mechanism, lever, pulley, gear, force, air resistance and friction, plan, organise, shape, adhesive, durable, balanced, function, precision, assess, edit, alter, design criteria, rotary motion, linear motion, innovation, composition, proportion, atmosphere.	By the end of the project we want the children to be able to create their own fairground ride using their knowledge on forces and mechanisms.	Resources Motors, pulleys, gears, cardboard, glue, charcoal, paint, paper, motors, crocodile clips, batteries, pulley wheels, wooden rods.	Areas of learning Science Art D&T ICT Music
How does learning build on prior understanding? Other year groups and other learning?	Content What will we learn?	Creativity How will we show our learning in different ways?	Ethos How does the project embed our values?	How will this project prepare for future learning?
D&T Marvellous, Mechanisms and Magical Machines (Year 2) -Creating and designing carts with wheels and axles. Wild Water (Year 4) -Looking at the structure of bridges and beginning to understand what makes some stronger than others and how to create stable foundations. Science:	Science -How unsupported objects falling to the Earth (Gravity) -Other forces, such as air resistance, water resistance and frictionInvestigating mechanismsLooking at how pulleys and gears reduce the amount of force on a greater load. Music	Art: Laurence Stephen Lowry -We will be creating accurate drawings of people and perspectives and develop an awareness of scale and proportionsWe will be developing our own styles through individual motion pictures. DT: Funground Rides -We will be using a motorised pulley	Being resilient to learning new and challenging vocabulary. Being resourceful when creating our projects and using materials around us. Respecting the ideas of our peers and working well as a team. Being resilient, embracing the idea that our first draft/creation may not be our best.	Science: Light and Electricity (Year 6) Creating a circuit with a motor as a component in a circuit and how to represent this as a symbol. D&T: Structures (Year 6) Understanding the stronger shapes and properties of materials to build a lantern.

Forces and Magnets (Year 3) -Compare how things move on different surfaces.

-Notice that some forces need contact

between two objects.

Electricity (Year 4)

- -Identifying common appliances that run on electricity.
- -Constructing simple circuits.

-How to hold a Ukulele appropriately.

- -To know open string notes
- -To play pieces with some open string notes and one- or two- finger chords.
- -Read simple notation including simple rhythms.
- -Follow a short score using chord symbols

Art

- -Using different techniques for different purposes.
- -Starting to develop our own style using tonal contrast.
- -Look at the effect of light on objects and people in different directions
- -Using close observational skills
- -Develop a simple perspective using focal point and horizon.

D&T

- -Show an understanding of the qualities of materials to choose appropriate tools to cut and shape.
- -Create a rotary motion.
- -Use innovative combinations of electronics

ICT

- -Know when personal information can be safely shared and how it can be kept safe.
- -To identify possible dangers within different scenarios.
- -To recognise the needs for different privacy settings.
- -To identify what good behaviour online looks like.

to create a carousel or ferris wheel.

Music: Ukulele

-We will be starting to read notation and being able to follow short scores using chord symbols.

-We will be able to play pieces with

open string notes.

Art:

Birds of Prey (Year 6) Developing their style of drawing and painting through tone.