Year group: 5 Term: Spring 1 **Topic: Scream Machines – Which force** is with you?

Kernow Cluster Topic Overview Sheet

Objectives





Opportunities for outdoor learning:

• Science

Key vocabulary:

Gravity, air resistance, friction, surface, effect, move, force, accelerate, decelerate, stop, change direction, brake, mechanism, pulley, gear, spring, pendulums.

Opportunities for trips / visitors:

• Virtual Theme Park (due to COVID-19 restrictions).

PSHE/British values objectives: PSHE

- Meditation through Class Worship.
- Expression through dance/music/art.

Digital literacy:

Design, write and debug programs that accomplish specific goals.



Whole class texts:

- Goosebumps A Shocker on Shock Street by R.L. Stine.
- Icky Doo Dah The Fairground Fiasco by Simon Murray.
- The Fantastic Flying Books of Mr Morris Lessmore.

History objectives: N/A this half-term

Learning about..

PE objectives: Dance

• To learn a sequence of choreographed movements to perform individually and within a group.

Maths objectives: Multiplication & **Division/Perimeter & Area**

Divide by 10, 100 and 1,000, multiples of 1,000, multiply 2, 3 & 4-digits by 1 & 2- digits, divide 2-digits by 2 digits. Measure perimeter of a grid, rectangles, rectilinear shapes, calculate perimeter, perimeter of a grid and squares.

English objectives:

- identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models
- in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action.
- in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed

Geography objectives:

• Children to locate a theme park in the UK and plan a trip from home with transport links using timetables to calculate how long the journey will take.

Music objectives:

• Learn and rehearse the songs for Songfest 2021.

Science objectives:

Investigate spinning, turning, pulleys, resistance and pendulums.

Languages objectives: N/A this half-term.

Art objectives:

• Explore and create expression in portraiture using photography and editing software.

Computing objectives:

- Create expressive portraiture using editing software.
- Create theme park maps using a variety of software and the internet.
- Know how to be a secerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted.
- Use publishing software to create an advertising poster.
- Create/programme simple algorithms.

RE objectives: The Local Church- Community.

Know and Understand:

- The mission of inspirational leaders
- Dioceses continue the work and mission of Jesus including ecumenism
- Acquire the skills of assimilation, celebration and application of the above.

DT objectives: select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

- Design and create a 3D carriage
- Create a simple ride that has a spinning mechanism
- Explore how cams and gears are used

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Kernow Cluster Topic Overview Sheet Skills

Links to previous topics:

- Compare how things move on different surfaces. (Y3 Forces and magnets) Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Y3 - Forces and magnets)
- Observe how magnets attract or repel each other and attract some materials and not others. (Y3 - Forces and magnets)
- Compare and group together a variety of everyday materials based on whether they are attracted to a magnet and identify some magnetic materials. (Y3 -Forces and magnets)
- Describe magnets as having two poles. (Y3 Forces and magnets)
- Predict whether two magnets will attract or repel each other, depending on which poles are facing. (Y3 - Forces and magnets)

PSHE:

- Guided meditation to relieve, stress, worry and depression.
- Recognise challenging behaviours and the negative effects these can have on relationships.
- Demonstrate speaking and listening skills.
- Demonstrate respectful interactions with others.

History skills: N/A this half-term

Geography skills:

• Analyse and compare a place, or places, using aerial

Links to future topics:

- Forces as pushes or pulls, arising from the interaction between two objects. (KS3)
- Using force arrows in diagrams, adding forces in one dimension, halanced and unhalanced forces (KS3)
- Moment as the turning effect of a force. (KS3)
- Forces: associated with deforming objects: stretching and squashing springs; with rubbing and friction between surfaces, with pushing things out of the way; resistance to motion of air and water. (KS3)

Maths skills:

- Complete, read and interpret information in tables including timetables Solve comparison, sum and difference problems using information
- presented in a line graph. Identify multiples and factors including finding all factor pairs of a number and common factors of two numbers.
- Multiply and divide whole numbers and those involving decimals by 10,
- Find the area of various sized squares and rectangles by counting/multiplying squares and using the formula L x B.

PE skills: Dance

- Rehearse, refine and repeat short dance sequences with style and artistic intention.
- Perform to an accompaniment expressively and sensitively.
- Use an increasing range of complex composition principles to
- Create and structure motifs, phrases, sections and whole

VALUES RELATIONSHIPS Qo OUINDOD,

Opportunities for home learning / cultural capital:

Independent research/homework over the half-term break.

Set homework:

- Spellings
- Daily reading
- Handwriting

English skills:

- Plan by writing down ideas and/or key words.
- Evaluate writing by re-reading to check that verbs to indicate time are used consistently.
- Plan by sequencing ideas into sentences.
- Develop stamina and write for a range of different purposes.
- Proof-read writing to check for errors in spelling, grammar and
- Sequence the events in my story.
- Describe the appearance, actions and feelings of characters.

photographs, atlases, and maps.

Music skills:

- Sing with awareness of dynamics, phrasing and pitch
- Compare, contrast and combine a range of musical
- Use musical ideas and structures to compose a score.

Science skills:

- Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.
- Recognise that when an object is at rest the forces are balanced.
- Recognise that unsupported objects fall to Earth because of the force of gravity acting between the Earth and the falling object.

Languages skills: N/A in this half-term.

Art skills:

Become proficient in photography and collect, examine, select and use resource materials to inform thinking and contribute to the development of ideas

Computing skills:

- are responsible, competent, confident and creative users of information and communication technology.
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

RE skills:

- Make links to show how inspirational leaders affect their behaviour and that of others.
- Compare their own and other people's ideas about questions about what inspires people in their mission and realise that some of these are difficult to answer.

DT skills: Design, create and construct 3D models

- Create free-standing 3D models using different materials.
- Shape and form clay to produce a slab pot or container based on a basis 3D shape.
- Mix and combine a range of different materials and tools to create surface texture and impressions.
- Create effective relief and radiating patterns.

