Year 3 SCIENCE Topic 2: Feel the Force (3 WEEKS)		
Assessment Questions: 1. How could I test whether something is magnetic? 2. If I was testing how fast a car goes, using a ramp and different materials, what would I need to change and what would I need to keep the same? 3. Will a car move faster or slower over a bumpier surface than a smooth surface? Why? 4. Can you name 2 materials that are magnetic? 5. If I put two magnets together, what would happen? 6. How could I move a paper clip, if nothing could touch it?		
Values: Perseverance and Respect		
KNOW	DO	UNDERSTAND
NC Content: S: compare how things move on different surfaces S: notice that some forces need contact between 2 objects, but magnetic forces can act at a distance S: observe how magnets attract or repel each other and attract some materials and not others S: compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials S: describe magnets as having 2 poles S: predict whether 2 magnets will attract or repel each other, depending on which poles are facing ***Vocabulary:*** *Friction, surface, force, properties, repel, attract, magnetic, poles, direct contact, hypothesis, fair test, push, pull, twist, magnetic force.* Children know that objects will move differently on different objects, e.g. a car will move quickly on a smooth surface, but slower over a bumpier surface. Children know that friction is a force, that affects how objects move. Children know which objects are similar, in terms of their properties, and which are different. Children know that magnets can attract or repel each other. Children know some magnetic materials. Children will know that magnets have 2 poles. Children will know how the poles affect whether they repel or attract each other. Children know that magnets do not have to have direct contact with the object for it attract or repel the object.	**NC Content:** WS: asking relevant questions and using different types of scientific enquiries to answer them WS: setting up simple practical enquiries, comparative and fair tests WS: recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables WS: reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Children will begin to ask questions about different surfaces and how objects move differently. Children will design their own experiment using different materials to test their hypothesis. Children will discuss how to make this a fair test – just letting it go, same height, same angle, same object etc. Children will set up another simple experiment to find out which materials are magnetic. Children will draw diagrams and tables to log their results. Children will investigate the question “can you move an object without touching it?” – use magnets.	*PRIOR LEARNING: In year 1 and 2, children have been exposed to the idea of whether something is magnetic. However, they have not learnt the terminology repel or attract.* Children will build on their understanding of materials to test them with magnets. Children will understand that all objects have different properties and that some properties may be helpful in certain jobs, but not in others – cranes using big magnets etc. Children have not been taught about fair tests before. This will be their first exposure to variables.

Year 3 Geography Feel the Force

Assessment Questions

- *What are the 4 compass points? What do they tell us? Why do we have a North and South Pole? What is the True North?*
- *Show me some cities that are North/West/East/South of Birmingham on a UK map.*
- *Show me some countries in the world closer to the North Pole then some that are closer to the South Pole.*

Know

Geographical Skills and Fieldwork

I know that compass points tell us the position of places in relation to one another and I can label North, South, East and West on a compass.

I know that the earth has a magnetic field, which is why we have a North Pole and a South Pole.

The geographic North Pole is the end of the Earth's rotation axis and is the North on geographic maps. This pole lies in the middle of the Arctic Ocean.

The magnetic North Pole is the point where the lines of force of the Earth's magnetic field converge.

Vocabulary

North, South, East, West, compass point North Pole, South Pole

Geography Core Concepts: Environment

Climate

Do

Locational Knowledge

NC:

- **locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities**
- **identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)**

Find a country that is North, South, East and West ofthe UK on a globe or a World map (relate to the NORTH and SOUTH pole).

Find the position of latitude, longitude, equator, Northern and Southern Hemisphere with reference to the North and South poles and mark on a world map.

Explain the difference between the geographical and magnetic North Pole.

Geographical skills and fieldwork

NC:

- **use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied**
- **use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world**

Explain that compass points tell us the position of places in relation to one another.

Label North, South, East and West on a compass.

Fieldwork opportunities

Go outside and find physical landmarks in the park that are north, south, East or west of the school/ a child/ a fixed pointetc.

Understand

Feel the Force is a predominantly science-based topic but does cover some geography in relation to the teaching of the four compass points.

By revising the cities of the UK or countries in Europe whilst teachingthe four compass points, children are given opportunities to deepen their locational knowledge of the UK and the wider world.

Year 3 ART Topic 2: Feel The Force (3 Weeks)		
Assessment Questions What is exploratory art? How have you created your surface textures? What media/materials have you used? Perseverance and respect		
KNOW	DO	UNDERSTAND
Know what exploratory art is. Know how to select different media to create different surface texture. Know how to create different textures by combining media. Key vocabulary: Explore Exploratory art Media Surface texture Combine Print Layer	This is an exploratory art unit, with children exploring surface textures: Children print using different textured surfaces, eg bubble wrap, corrugated card – free choice. Consider things with similar textures eg fine/coarse sandpaper. Children print through different textured surfaces, eg open-weave hessian, doilies. Children create their own textured paint, eg adding sand, oats. Create layered images using all three processes. **NC Aims:** - to use drawing and painting to develop and share their ideas, experiences and imagination - to develop a wide range of art and design techniques in using colour, pattern and texture **NC Content:** Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. - to create sketch books to record their observations and use them to review and revisit ideas - to improve their mastery of painting with a range of materials	This is a Science-based unit where children explore forces and magnets, and spend time learning specifically about friction, water resistance and air resistance. When considering surfaces and how different objects react on different surface textures, children will investigate exploratory art, creating different textured surfaces/patterns.

Year 3 MUSIC Topic 2: Feel The Force		
KNOW	DO	UNDERSTAND
I know that: • Each piece of music has a different metre • The first beat is stronger and will help you identify it is in 2, 3 or 4 time • Repeated rhythms (ostinati) can be played together in layers • You need to listen to the beat and stay in time when playing an ostinato • Rhythms can be written in staff notation and you can follow it when playing **Vocabulary:** Beat/pulse metre rhythm rhythm pattern ostinato tempo **staff notation** **leitmotif/ theme** melody	**Music express: Time (3)** Children will watch the *Many metres* movies. They will see how a beat is grouped into a pattern of 2, 3 or 4 and that this is the metre. They will explore how the beat can be at a different speed, and that the strong beat marks the first beat. They will play songs and games to get more confident at playing along with 2, 3, or 4 time. They will listen to 'Carillon' from L'Arlésienne by Bizet and identify musical elements such as changes in pitch, dynamics and different instruments before finding the beat and working out what the metre is. *NB the instrument is a Carillion – there is one of these in Bournville in a building on the Green, outside Cadbury World.* They will sing along to 'ding dang dong' in two groups, learning the Carillion bell melody and look at how two melodies can be played at the same time. The children will listen to 'keep in time' and identify 4 different rhythmic patterns which are played at the same time. They will use words to learn the rhythms. They will then use graphics of the notation and match it to the word pattern (they don't need to know values of notes/ names of them – this is the first time they have been shown the concept of staff notation). With a child keeping a steady beat on a drum, the children will perform the different rhythm together with body percussion or instruments. They will evaluate their performance (what was the balance of the volume like? Did everyone stay in time?) C**ross curricular links: Star wars themes and leitmotifs** Star wars – The children will listen to the themes and leitmotifs of different characters. (when characters appear/ are mentioned in a film, their theme will be played in the soundtrack). They will find the beat, the meter and then identify the rhythms (Luke and Vader have strong, recognisable patterns which can then be repeated). Children can explore finding words to match the rhythms and seeing if they can layer the two patterns together.	*This follows on from Year 2 where children were given opportunities to find the beat and talk about if the beat was steady or if the beat changed tempo. They have been introduced to the idea of a four beat metre. They have followed a graphic score to perform, but this has been pictures. They have not seen staff notation.* **NC Areas covered:** • Pupils listen to, review, and evaluate music, including the works of the great composers • Pupils use and understand staff notation (rhythm) • Pupils learn to sing and to play a musical instrument • Pupils develop an understanding of musical composition, organising and manipulating ideas within musical structures