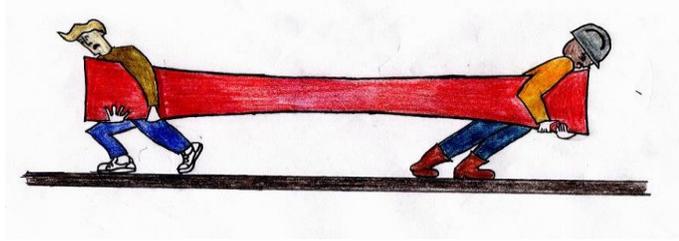


May the force be with you!



3 Weeks

Rationale

After Professor Plutonium's visit to the Year 5 Science Fair, the children receive a video from a rather irate Professor who is upset that the children did not present four important scientific concepts at the recent Science Fair. He challenges the children to create short informative and captivating videos to show their understanding of gravity, air resistance, friction and water resistance. As budding scientists, they will investigate and test their hypotheses to show their understanding of forces. Children will take on roles, negotiate tasks as they go and work together to plan, investigate and present their scientific findings, including writing explanations.

Hook

Eccentric scientist, Professor Plutonium (Pu) sends a video to the Year 5 children, very cross because when he visited their Science Fair he realized that the children had omitted four important scientific concepts: gravity, air resistance, and friction and water resistance. He provides four slide shows, which has produced with scientific investigations ready for them to complete.

Outcome

Produce four short videos for the school website, to demonstrate the investigations sent by Professor Plutonium.

Collaboration

- Rely on others, make a meaningful contribution to the team and give praise and encouragement to others.
- Take on a specified role in a team, accepting delegated tasks and working towards achieving a common goal or outcome.
- Reach agreements through negotiation and compromise and resolve any difficulties amicably.

Thinking

- Process a variety of information using a range of organising tools.
- Give reasons, explain and justify their ideas and opinions using precise language.

Focus Subject - Science

Investigate Professor Plutonium's (Pu) first challenge of learning about weight and gravity. Carry out a fair test to show that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Record your findings.

Plan, carry out, predict and report on the scientific enquiry 'How does the size of a parachute affect the speed at which it falls to the ground?'

Focus Subject - English

Main writing tasks

Complete a standard (proforma provided) scientific report using modal verbs and devices that ensure cohesion to predict, describe the scientific process and arrive at a conclusion e.g. Firstly, after that.

Use organisational and presentational devices to write a report to present their investigation and the subsequent findings (using the correct

Focus Subject - DT

Investigate levers, pulleys and gears in everyday situations e.g. construction kits, clocks, toys, cards and door handles.

Explore, design, make and evaluate a product using levers, pulleys and gears.

<p>Make predictions, investigate and explain the effects of water resistance on different shapes and how different shapes move in water.</p> <p>Create a scientific Investigation to show the effects of friction acting between two surfaces changing one variable at a time. Explain the scientific processes involved, measuring using Newtons and subsequent conclusions.</p>	<p>technical terminology and appropriate punctuation).</p> <p>Other writing tasks Plan and write what you think it would be like to walk on the moon.</p> <p>Write an explanation of friction, using appropriate grammar and punctuation, (fronted adverbials, noun phrases, appropriate conjunctions -causal connectives).</p> <p>Writing skills to cover Clause manipulation and construction Use of passive voice Formal tone</p> <p>Spelling, Punctuation and Grammar Homophones suffixes</p> <p>Talk 4 Writing strategies Boxing up Reading as a reader Reading as a writer.</p>	
<p>Application Subject- Computing Create a series of videos to demonstrate an investigation carried out explain the concept being recorded using appropriate scientific vocabulary.</p>		
<p>Application Subject- Mathematics Complete, read and interpret information collected in tables. Accurately measure and record using correct unit of measurement.</p>		
<p>Home Learning Research either Newton or Galileo as important scientific historical people.</p>		
<p>Visits and visitors Eccentric scientist video recording</p>		