



Impact

Year 3 | Summer 1

CURRICULUM SPOTLIGHT: Computing | Design & Technology

ENQUIRY

Can creativity have a positive impact on reading for pleasure?

OUTCOMES

Sharing event with Nursery children: using Sphero to aid storytelling

VOCABULARY

DT: Mechanism, lever, linkage, pivot, slot, input, process, output, linear, rotary, oscillating, reciprocating

Computing: Algorithm, debugging, input, output, coding, looping, device

KEY TEXTS

The Big Book of Science Ideas

Oscar and the Bird: A Book about Electricity

The Boy who harnessed the Wind

Horrible Science: Shocking Electricity

BACKGROUND KNOWLED

<http://www.cees.org.uk/cms/uploads/pdfs/EnergyWorksTeacherPackKS2.pdf> Electricity
(Straight Forward with Science) (2018) <https://www.youtube.com/watch?v=Q0LBegPWzrg>
<https://www.youtube.com/watch?v=qfdrmQmKqLo>

RESOURCES

Sphero, books and other products with lever and linkage mechanisms, staplers, staples, glue, card, paper, masking tape, paper fasteners (split pins), glue, scissors, single hole punch, finishing media and materials

GE

CORE CURRICULUM LEARNING OUTCOMES

| <i>English</i> | <i>Mathematics</i> | <i>D&T</i> |
|---|---|---|
| <p>Spelling</p> <ul style="list-style-type: none"> - Phonemes: i, ie, er, or, k <p>Grammar</p> <ul style="list-style-type: none"> - Paragraphs - Inverted commas - Past and present tense - Varying pronouns | <p>Fractions</p> <ul style="list-style-type: none"> - Preparing for fractions - Unit and non-unit fractions - Adding and subtracting fractions within a whole | <p>Designing</p> <p>Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user.</p> <p>Use annotated sketches and prototypes to develop, model and communicate ideas</p> <p>Making</p> <p>Order the main stages of making.</p> <p>Select from and use appropriate tools with some accuracy to cut, shape and join paper and card.</p> <p>Select from and use finishing techniques suitable for the product they are creating.</p> <p>Measure and mark out to the nearest centimetre.</p> <p>Evaluating and improving</p> <p>Investigate and analyse books and, where available, other products with lever and linkage mechanisms.</p> <p>Evaluate their own products and ideas against criteria and user needs, as they design and make</p> <p>Substantive knowledge: Mechanics</p> <p>Choose suitable techniques to construct products or to repair items.</p> <p>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages</p> <p>Understand and use lever and linkage mechanisms.</p> <p>Distinguish between fixed and loose pivots.</p> <p style="padding-left: 20px;">Know and use technical vocabulary relevant to the project</p> |
| PSCHE and PRE | Spanish | Physical Education |
| <p>PSHCE</p> <ul style="list-style-type: none"> - Personal safety <p>PRE</p> <ul style="list-style-type: none"> - Sikhism - festivals | <p>History</p> <p>Ancient Britain</p> | <p>Physical</p> <ul style="list-style-type: none"> - <i>Agility- reaction and response</i> - <i>Static balance- floor work</i> - <i>Tennis</i> |

| Computing | Science |
|---|---|
| <p>Coding</p> <ul style="list-style-type: none">- Understand that algorithms are clear instructions- Create describe and debug algorithms- Code a program to achieve a sequential algorithm. | <p>Electricity</p> <ul style="list-style-type: none">- Identify common appliances that run on electricity- Construct a simple series electrical circuit, identifying and naming its basic parts- Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.- Recognise some common conductors and insulators |