

## Science



### Electricity

#### National Curriculum Links

Pupils should be taught to:

- Identify common appliances that run on electricity
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
- Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery
- 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, and associate metals with being good conductors

#### Learning Outcomes

Children will be able to:

- Explain the difference between mains and battery circuits
- Talk about the dangers of electricity
- Create simple circuits, including those with switches
- Identify circuits which will work and those which won't
- Test their predictions by recreating given circuits
- Explain the difference between conductors and insulators
- Test materials to see if they are conductors or insulators
- Use their knowledge of conductors and insulators to create their own switches
- Use their knowledge to create a circuit for a given purpose

**Opportunity for scientific investigation:  
Which materials can we use to make a switch?**

## Topic-based English

### Instructions and Explanations: Cross-Curricular links to Science Performance Poetry / Shape Poetry

#### National Curriculum Links:

Pupils should be taught to:

- Develop positive attitudes to reading and an understanding of what they read by listening to and discussing a range of texts
- Discuss the words that capture the readers interest and imagination
- Ask questions to improve their understanding of a text
- Identify main ideas drawn from more than one paragraph and summarise them
- Plan, draft, write, evaluate and edit their written work
- Proof read for spelling and punctuation errors
- Use a wide range of conjunctions to extend sentences
- Choose nouns / pronouns appropriately for clarity and cohesion, avoiding repetition
- Read aloud their own writing, using appropriate intonation and controlling the tone and volume so that the meaning is clear

## Design Technology

### An Alarmed Treasure Box

#### National Curriculum Links

Pupils should be taught to:

- Design (see NC for more detail)
- Make (see NC for more detail)
- Evaluate (see NC for more detail)
- Understand and use electrical systems in their products.

#### Learning Outcomes

Children will be able to:

- Create 3D objects using 2D nets
- Construct a box that can be used to store 'treasure'
  - Incorporate a circuit into their design that sets off an alarm when their box is opened

## Modern Foreign Languages

### French: Classroom Instructions & Greetings Numbers 0 - 12

#### National Curriculum Links

Pupils should be taught to:

- listen attentively to spoken language and show understanding by joining in and responding
- engage in conversations, ask and answer questions.
- speak in sentences using familiar vocabulary
- read carefully and show understanding of words, phrases and simple writing

#### Learning Outcomes

Children will be able to:

- Understand and give a variety of classroom instructions.
- Greet each other, asking how you are and be able to reply
- Count in French up to 12



- Increase the legibility, consistency and quality of their handwriting
- Use the diagonal and horizontal strokes that are needed to join letters

## Science



### Sound

#### National Curriculum Links

Pupils should be taught to:

- Identify how sounds are made, associating them with something vibrating
- Recognise that vibrations from sounds travel through a medium to the ear
- Find patterns between the pitch of a sound and features of the object that produced it
- Find patterns between the volume of a sound and the strength of the vibrations that produced it
- Recognise that sounds get fainter as the distance from the sound source increases

#### Learning Outcomes

Children will be able to:

- Explore and identify the way sound is made through vibration in a range of musical instruments from around the world
- Identify how the pitch and volume can be changed in a variety of ways
- Find patterns in the sounds made by similar objects of different sizes/thicknesses etc
- Use their knowledge to make their own instruments

**Opportunity for scientific investigation:  
How does the volume of a sound change with distance?**

## Computing

### Make Your Own Drum Machine (MaKey MaKey)

#### National Curriculum Links

Pupils should be taught to:

- Select, use and combine a variety of software 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

#### Learning Outcomes

Children will be able to:

- Interact with MaKey MaKey and explore how it works
- Use their knowledge of circuits and conductors to control a computer via a MaKey MaKey
- Design a controller for a computer-based drum machine that responds to their touch
- Use MaKey MaKey to control simple programs that they have created (e.g. in Scratch)

## Maths

National Curriculum Links: Year 3 – Addition and Subtraction (Continued from Autumn 1), Multiplication and Division Facts (White Rose)

Pupils should be taught to (multiplication and division facts):

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
- Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems

## Maths

National Curriculum Links: Year 4 – Addition and Subtraction (Continued from Autumn 1), Multiplication and Division Facts (White Rose)

Pupils should be taught to (multiplication and division facts):

- Recall and use multiplication and division facts for multiplication tables up to  $12 \times 12$ .
- Count in multiples of 6, 7, 9, 25 and 1000
- Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
- Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems.



## Religious Education

**Christianity: Festivals and Celebrations**

**Learning Outcomes**

**(Northumberland Agreed Syllabus)**

Children will:

- Know that Christmas is important to Christians because it celebrates the birth of Jesus
- Know that Christmas is a special and happy time of the year involving special stories, events, artefacts and traditions
- Know that the Bible is the source for information about Jesus' birth

## PSHE

**Health and Wellbeing (Keeping Safe)**

National Curriculum Links (PSHE Association)

Pupils should be taught about:

- Managing risk in familiar situations and keeping safe
- Feeling negative pressure and how to manage this
- The importance of school rules for health and safety
- How to get help in an emergency
- About drugs that are common in everyday life (medicines, caffeine, alcohol and tobacco)
- Keeping safe in the local environment
- People who help them stay healthy and safe

## Outdoor Learning Opportunities

Children will:

- Use natural materials to make instruments
- Use home-made instruments to experiment with sound over varying distances
- Create shapes with natural materials and measure the perimeter of outdoor objects

## Mastering Maths

**Learning Outcomes**

Children will be able to:

- Sort appliances using Carroll and Venn diagrams of those that run on mains electricity, batteries or both (*Maths: Statistics / Science: Electricity*)
- Use a Log-Box to collect a set of data when experimenting with sound over distances (*Maths: Statistics and Measure / Science: Sound*)

## Mastering English

**Learning Outcomes**

Children will be able to:

- Describe a favourite sound using 'show don't tell' so that friends can guess it (*Science: Sound*)
- Write a personal set of rules for staying safe around the home with electricity (*Science: Electricity / PSHE: Keeping Safe*)

## Physical Education

**Rugby (Willow, Chestnut and Maple), Yoga**

**(Willow and Chestnut) Dance (Maple)**



National Curriculum Links

Pupils should be taught to:

- Develop flexibility, strength, technique, control and balance
- Use running, jumping, throwing and catching in isolation and in combination
- Play competitive games and apply basic principles suitable for attacking and defending

## Music

**Christmas Production (Cinderella Rockerfella)**

National Curriculum Links:

Pupils should be taught to:

- Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians
- Play and perform in solo and ensemble contexts, using their voices with increasing fluency, control and expression