

# Sparks and Waves

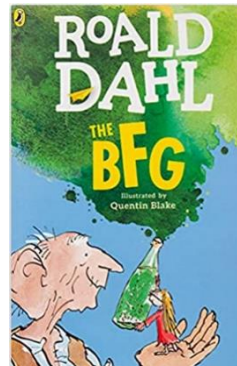
## Investigating Electricity and Sound

Year 3 and Year 4

Spring 2

2022

**What are sparks and waves and why do we need them?**



<b>Week 1</b>	<p><b>A musical bonanza!</b></p> <p><b>Why is Sophie's night so silent? (How sounds are made)</b></p> <p>In <b>English</b> we will read and discuss the first six chapters of Roald Dahl's The BFG. Writing tasks include; Describing a character using noun phrases; improving verb and noun choices for effect; adding adverbial phrases to describe when, where and how; and using a range of sentence types.</p> <p>In <b>Maths</b>, Year 3 are measuring length mm/cm and finding equivalent lengths, and comparing length</p> <p>Year 4 Moles will be finding out what is area, comparing area, and making shapes. Year 4 Rabbits will be recapping simplifying fractions and finding equivalent fractions. They will also start adding fractions</p> <p>Our <b>science topic</b> will start with a musical bonanza. Children will be exploring different musical instruments and watching excerpts of live concerts. Then they will find out how sounds are made. This involves identifying sound sources and making associations with vibration.</p> <p><b>Challenge: Where was the quietest part of the school?</b></p> <p>In <b>Computing</b>, we will be: Touch typing. The children will learn how to use the home, top and bottom row keys. They can practise on Purple Mash at home (unit 3.4).</p> <p>In <b>R.E.</b> we will understand what Christians believe about Lent. Look at Jesus' 40 days in the desert and how he gained strength for what lay ahead.</p> <p>We will recognise how different friendship groups are formed and how children fit in to them in <b>PSHE</b>.</p> <p><b>Year 3 P.E</b> is gymnastics (learning the five different rolls).</p> <p><b>Year 4 Swimming</b> starts, children will be grouped according to their ability. Sports Coaching for all is tennis and outdoor adventure.</p> <p>Ms Broadbent will be teaching <b>German</b> and children will learn how to name the most popular musical instruments in German. They will extend their learning by saying if they play/don't play a musical instrument.</p> <p>There isn't a <b>music</b> lesson in week 1</p>
<b>Week 2</b>	<p><b>How do sound waves reach the BFG's big ears?</b></p> <p><b>How do the sounds the BFG can hear differ?</b></p> <p>In <b>English</b> we will read chapters 7-12 of BFG and discuss. Writing tasks include; identifying and creating similes to support descriptive writing; Identifying the verbs needed at the start of a sentence to create a command and recording commands in order to create a recipe</p>

It is also **BOOK WEEK** so we will be dressing up and completing lots of fun book activities.

In **Maths**, Year 3 are adding and subtracting lengths and measuring perimeter. The Year 4 Moles will be completing their end of unit check and starting fractions (tenths and hundredths)

Year 4 Rabbits are adding and subtracting fractions and solving problems.

**We will continue exploring 'Sound' in SCIENCE:** We will discover that vibrations from sound travel through a medium to the ear, by exploring how high and low sounds are created. We will find the patterns between the pitch of a sound and features of the object that produced it, by exploring and creating musical instruments, and explaining how they change.

**Challenge: Which material would be best at blocking sounds? Foil Glass Paper Wool**

**Can the children explain why?**

**Challenge: Design an instrument that you can change the pitch. Explain how to change it.**

In **R.E**, children will begin to understand the actions of Christian believers during Lent and Ash Wednesday. In **PSHE**, children will be discussing the different roles we take in groups.

**Year 4 Swimming** starts, children will be grouped according to their ability. Year 3 **P.E** is gymnastics (learning the five different jumps) and Sports Coaching (tennis and outdoor adventure)

In **Music**, Year 3 continue K2M strings. They will play the string part to Tap Dancer with the backing track. Listen to 'Animal Sounds' and invent a short snippet of music / sound that brings to mind an animal. The Year 4 children will be learning to play the recorder

Ms Broadbent will be teaching **German** and children will start the topic of weather. They will develop their listening and speaking skills by understanding weather phrases in German and by describing the weather they see.

In year 4, we will start the topic of our daily routine. Pupils will be able to talk about their own morning routine before they go to school. They will create a short speech about their morning routine with an emphasis on good pronunciation.

In **Computing**, we will be: Touch typing. The children will learn to practice and improve typing for home, bottom and top rows. They will practice the keys typed with the left hand. They can practise on Purple Mash at home (unit 3.4).

<p><b>Week 3</b></p>	<p><b>Do the giants sound different if they are further away?</b>  <b>How did Sophie's bedclothes smother the sound?</b></p> <p><b>In English</b>, we are reading chapters 13-21 of the BFG. Writing tasks include: finding synonyms; making plausible inferences about a character's emotions; writing in role; and using conjunctions for cause and effect.</p> <p><b>In Maths</b>, Year 3 are problem solving with length, and completing their end of unit test. They will start learning about unit and non-unit fractions, and making the whole. The year 4 Moles are finding out about equivalent fractions, simplifying fractions, and making fractions greater than 1.</p> <p>The Year 4 rabbits are calculating fractions of a quantity and problem solving, and completing their end of unit test.</p> <p>The <b>'Sound'</b> part of our <b>topic</b> concludes this week with, the children recognising that sounds get fainter as the distance from the sound source increases. They will be making string telephones and investigating the best material for absorbing sound.</p> <p><b>Challenge:</b> Draw a picture to help you explain why the sound of a police car siren gets fainter or louder according to the distance?</p> <p><b>Challenge:</b> Is there a place where you could clap your hands but not hear a sound?</p> <p>In <b>R.E</b>, we are thinking about how we cope at difficult times and the things that bring us strength. Children will draw/ write about times when they need to be strong and things they can do to help themselves.</p> <p>In <b>PSHE</b>, children will understand the facts about smoking and its effects on health. They will also understand why some people decide to smoke, and the effect of peer pressure.</p> <p><b>Year 4 Swimming</b> continues, children will be grouped according to their ability. In Year 3 <b>P.E</b>, we will continue gymnastics: Children will learn 5 different ways to travel: sliding, feet only, hands and feet, rolling and cartwheel.</p> <p>The Sports Coaching continues: tennis and outdoor &amp; adventure</p> <p><b>In Music</b>, Year 3 continue K2M strings, playing the string part to Tap Dancer with the backing track. They will Learn fingers 1, 2 and 3 and try on the D string then the A string. They will learn the 'Duke of York'.</p> <p>The Year 4 children will be learning to play the recorder</p> <p>Ms Broadbent will be teaching <b>German</b> and children will continue looking at weather maps and understanding what the weather is like in different German towns. They will also revisit the days of the week. In year 4, pupils will learn how to talk about their after-school routines. They will create a short diary entry saying what they do after school.</p> <p>In <b>Computing</b>, we will be touch typing. Children will practice and improve typing for home, bottom and top rows, and practice the keys typed with the right hand. They can practise on Purple Mash at home (unit 3.4).</p>
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<b>Week 4</b>	<p><b>Does the BFG use electricity in his home?</b></p> <p><b>How could you light up the BFG's cave?</b></p> <p><b>In English</b>, we will read to the end of The BFG. Tasks include: summarising events; making connections to other stories; using adverbials. The children will then plan their own story and write the opening to a fantasy adventure story. (This will be their 'Believe We Can Achieve' extended writing piece)</p> <p>In <b>maths</b>, year 3 are learning about tenths and finding fractions of number. Year 4 Moles are finding fractions greater than 1 and completing an End of unit check. They are then starting to add and subtract fractions. The year 4 Rabbits continue their work on tenths, and will be dividing whole numbers by 10</p> <p>In our <b>Science</b> topic, we will start to learn about electricity. We will: Identify common appliances that run on electricity; identify the different types of electricity; and learn how to stay safe when using electricity. We will construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. We will also be identifying whether or not a lamp will light in a simple series circuit.</p> <p><b>Challenge: Which electrical devices could be powered by either mains electricity or a battery?</b></p> <p><b>Can you explain how you could make a bulb lighter?</b></p> <p>In <b>Computing</b>, we will be touch typing. Children will practice and improve typing for home, bottom and top rows, and practice the keys typed with the right hand. They can practise on Purple Mash at home (unit 3.4).</p> <p><b>RE</b> learning this week will be to recall the main facts from the Easter story.</p> <p>In <b>PSHE</b>, the children will learn some facts about alcohol and its effect on health, especially the liver, and why some people drink alcohol.</p> <p>In Year 3 <b>P.E</b>, the children will learn 5 different balances in gymnastics: arabesque, chest, knee, sit and shoulder. <b>Year 4 Swimming</b> continues, children will be grouped according to their ability. The Sports Coaching continues with tennis and outdoor &amp; adventure.</p> <p>Year 3 <b>Music</b> is revising the new fingers learnt this term and learning, 'Hot Cross Buns' and 'Summer Sunshine'. Year 4 are learning to play the recorder</p> <p>In <b>German</b>, pupils will learn how to describe their school uniform. They will create a short description of what they wear to school every day. In year 4 pupils will be revisiting the numbers from 1 to 60 in preparation for learning how to tell the time.</p>
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<b>Week 5</b>	<p><b>How can we keep the BFG safe from sparks?</b></p> <p><b>What does the BFG need to know about switches?</b></p> <p><b>In English</b>, the children will be writing the climax and ending of their fantasy adventure story:</p> <ul style="list-style-type: none"> <li>• include dialogue, inverted commas</li> <li>• use appropriate synonyms for 'said'</li> <li>• use adverbial phrases</li> <li>• include subordinating conjunctions</li> <li>• edit writing for cohesion</li> </ul> <p>They will share this writing with you at home (BWCA)</p> <p><b>In Maths</b>, Year 3 will be finding fractions of a set of objects, and completing their end of unit check. The year 4 Moles will be adding and subtracting fractions and calculating fractions of a quantity. The Year 4 Rabbits will be finding hundredths, dividing whole numbers by 10 and 100 and completing their End of unit test.</p> <p><b>In our Science topic</b>, the children will construct a simple series electrical circuit, and recognise some common conductors and insulators. They will recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit by creating circuits which contain a switch.</p> <p><b>Challenge:</b> How can electrical insulators be used to keep us safe?</p> <p>Are all metals conductors of electricity?</p> <p>Which metals could be used to connect across a gap in a circuit?</p> <p><b>In R.E</b>, the children will retell the Easter story in pictures and words, using a comic strip.</p> <p><b>In PSHE</b>, the children will be discussing peer pressure and identifying the associated feelings of anxiety and fear</p> <p>In Year 3 <b>P.E</b>, children will work with a partner to create and repeat a gymnastics sequence with at least one jump, travel, roll and balance. They will include a change in speed and direction. <b>Year 4 Swimming</b> continues, children will be grouped according to their ability. Sports Coaching continues with tennis and outdoor &amp; adventure</p> <p>In <b>Computing</b>, we will continue to develop skills in touch typing. Children will practice and improve typing for home, bottom and top rows, and practice the keys typed with the left and right hand. They can practise on Purple Mash at home (unit 3.4).</p> <p>In <b>Music</b>, year 3 are revising the new fingers learnt this term and rehearsing the songs learnt this half term including, 'Hot Cross Buns' and 'Summer Sunshine'. <b>Year 4 children will learn to play the recorder</b></p> <p><b>In German</b>, years 3 and 3/4 we will extend the clothes topic by saying what pupils wear at the weekend. Pupils will develop their speaking skills. In year 4 pupils will learn how to say the time on the hour from midnight to midday.</p>
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<b>Week 6 Reflection Week</b>	<p><b>How can we use sparks and waves to scare the giants and save the children?</b></p> <p>The children will complete reading assessments this week in <b>English</b>. They will also be writing an explanation of how their model works, that they will be making in science.</p> <p><b>In Maths</b>, the children will be completing their end of term assessments and revisiting any areas where they need to consolidate their learning.</p> <p><b>Science:</b></p> <p>Children will be designing a contraption that would scare a giant and then make a working model of it (containing an electrical circuit that creates a sound using buzzers).</p> <p><b>Challenge:</b> Can you explain why cautions are needed for working safely with electricity?</p> <p>The children will be tapping into their inner strength and assertiveness in <b>PSHE</b>. They will learn to listen to their inner knowledge of right and wrong</p> <p><b>In Year 3 P.E</b>, Children will improve their sequences and perform to half the class. They will evaluate each other - are they working in a controlled way, have they included a roll, jump, balance and travel? <b>Year 4 Swimming</b> continues, children will be grouped according to their ability. Sports Coaching continues with tennis and outdoor &amp; adventure</p> <p><b>Music: Year 4</b> – The children will learn to play the recorder</p> <p><b>Year 3</b> The Year 3s are revising the new fingers learnt this term and performing a short concert to the year 4s.</p> <p>In <b>Computing</b>, we will continue to develop skills in touch typing. Children will practice and improve typing for home, bottom and top rows, and practice the keys typed with the left and right hand. They can practise on Purple Mash at home (unit 3.4).</p> <p>In <b>German</b>, the children will look at how Easter is celebrated in German-speaking countries.</p>
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