

YEAR 4 SOUND PLANNING

Class:

Term:

Subject: Science

Unit: Sound

<p>Differentiation and support (Detailed differentiation in weekly plans.)</p> <p>SEN: write up investigations on writing frames. Support from more able partners in mixed ability work. Additional adult support.</p> <p>GT: provide headings for experiment sections. Encourage predictions conclusions that draw on scientific knowledge. Provide extension activities to apply their own knowledge and to research information independently</p>	<p>English: writing up experiments in sequence using technical language, listening for information in video clips, using Morse code, vocabulary and adjectives</p> <p>Maths: categorising instruments, drawing results tables and bar charts</p> <p>ICT: videos on IWB, Morse code generator</p> <p>PSHCE & PE: learning how to look after our hearing</p>
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W	Learning objective	Teaching activities	Resources	Assessment: Success Criteria
1a	<p>To know a range of adjectives for describing sounds</p> <p>To classify sounds based on adjectives for them (30 mins)</p>	<p>Intro:</p> <p>Ask children to explain how they think sound is created</p> <p>Watch video at https://www.bbc.co.uk/bitesize/clips/z9h6n39 (if the link does not work, Google 'BBC Bitesize KS2 Understanding sound' and use the result 'Understanding sound - KS2 Science - BBC Bitesize') which explains how vibrations produce sound</p> <p>Ask children to think, pair, share as many adjectives as they can for describing sounds, and take suggestions as a class</p> <p>Explain that we will be classifying sounds based on whether they are low or high and natural or man-made</p> <p>Watch video on low and high sounds at https://www.bbc.co.uk/bitesize/clips/zwwykqt (if the link does not work, Google 'BBC Bitesize Making sounds with different pitches')</p> <p>Revise what the words low, high, natural and man-made mean</p> <p>Ask children to think, pair, share as many examples as they can for examples of low, high, natural and man-made sounds, and take suggestions as a class</p> <p>Go through PowerPoint with images and sounds for the following: a lion roaring, an emergency siren, a mouse squeaking, a propeller plane, an alarm, thunder, birds singing and a jackhammer drilling</p> <p>Main:</p> <p>Children need to classify sounds in a Carroll diagram with categories of low / high and natural / man-made</p> <p>Extension: Add some of their own examples to the Carroll diagram</p> <p>Plenary:</p> <p>Go through correct answers and ask children to share any of their own examples that they added</p> <p>What sounds do we find annoying? What do they have in common with each other?</p>	<p>PowerPoint (check sound files play OK)</p> <p>Items to cut out and stick</p> <p>Scissors</p> <p>Glue</p>	<p>MUST: understand the difference between high / low and natural / man-made sounds</p> <p>SHOULD: classify sounds correctly in a Carroll diagram</p> <p>COULD: add their own examples of sounds to the Carroll diagram</p>

1b	<p>To sort musical instruments based on how they are played</p> <p>(30 mins)</p>	<p>Intro: Ask children to think, pair, share the names of as many musical instruments as they can, as well as how each of these instruments is played Explain that there are three main types of instruments: strings, wind and percussion and that these are played by plucking, blowing and banging respectively Show children this with instruments (if have them) e.g. rice grains scattered on a drum or by seeing how the string on a guitar vibrates (or can just demonstrate by 'twanging' a ruler or an elastic band) Watch video about musical instruments at https://www.bbc.co.uk/bitesize/clips/zqtxpv4 (if the link does not work, Google 'BBC Bitesize video KS2 Sounds made from different types of musical instruments') Emphasise how all instruments make sounds by creating vibrations</p> <p>Main: Children to sort musical instruments based on whether they are played by plucking, blowing or banging (instruments are less well-known ones so that children are more likely to learn the names of some more instruments) Extension: Children to add some examples of their own</p> <p>Plenary: House competition – in their house groups, children to think of as many examples of string, wind and percussion instruments as they can in a set time Award points to the team who has the most instruments (and classified them correctly)</p>	<p>Check video opens and plays OK</p> <p>Items to cut and stick</p> <p>Scissors</p> <p>Glue</p>	<p>MUST: understand that musical instruments make sound through vibrations</p> <p>SHOULD: classify musical instruments based on how they produce sound</p> <p>COULD: add some examples of their own musical instruments</p>
2	<p>To know the unit of measurement for sound</p> <p>To be able to estimate the decibel level of noises</p> <p>(40 mins)</p>	<p>Intro: Ask the children to think, pair, share some of the different units of measurement and what they measure Ask if anyone knows the unit of measurement for sound Explain that we measure sound in decibels and watch short video at: http://www.youtube.com/watch?v=dmo01I3XM-8 which explains decibels and how sounds over a certain level of decibels can damage our ears</p> <p>Main: Children to sort sounds from quietest to loudest and match them to their decibel level Extension: Add some sounds of their own</p> <p>Plenary: Revise how we measure sound in decibels (dB) Ask children to estimate the noise level for the following:</p> <ul style="list-style-type: none"> • someone knocking on a door • a busy playground • someone scratching a table • ask them to suggest some of their own noises to estimate decibel levels for 	<p>Noises to cut and stick</p> <p>Scissors</p> <p>Glue</p>	<p>MUST: understand that sound is measured in decibels</p> <p>SHOULD: sort noises from quietest to loudest and match them to their decibel levels</p> <p>COULD: add some examples of their own</p>

3a	<p>To understand how we hear sounds</p> <p>(30 mins)</p>	<p>Intro: Explain that although we are not aware of it as we hear things, this is a complex and incredible process Watch videos on how sound moves through the air and through solids at https://www.bbc.co.uk/programmes/p011m777 (if the link does not work, Google 'BBC Two video science in action How does sound travel through air?') https://www.bbc.co.uk/bitesize/clips/ztwkjxs (if the link does not work, Google 'BBC Bitesize video KS2 How does sound travel through air?') https://www.bbc.co.uk/teach/class-clips-video/science-ks1-how-does-sound-travel/z4yrcqt (if the link does not work, Google 'BBC Teach class clips Science KS1: How does sound travel?') https://www.bbc.co.uk/bitesize/topics/zgffr82/articles/zstr2nb (if the link does not work, Google 'BBC Bitesize video KS2 How are sounds made?') https://www.bbc.co.uk/bitesize/topics/zgffr82/articles/zx9hcj6 (if the link does not work, Google 'BBC Bitesize video KS2 How are sounds detected?') https://www.bbc.co.uk/bitesize/topics/zgdmsbk/articles/zkdkmfr (if the link does not work, Google 'BBC video 2nd level How do humans hear?') http://www.bbc.co.uk/learningzone/clips/the-human-ear/12222.html</p> <p>Main: Children to label the outer ear, auditory canal, ear-drum, cochlea and auditory nerve on a diagram of the ear Children to re-arrange 6 jumbled up statements about how we hear sound through our ears</p> <p>Plenary: Give children a chance to practice for the competition, before collecting in worksheets Have competition – in pairs, children need to explain the process by which we hear Award points to pairs that remember correctly (or come close enough)</p>	<p>Check videos open and play OK</p> <p>Worksheets</p>	<p>MUST: label the parts of the ear correctly</p> <p>SHOULD: correctly sequence the steps in how we hear sounds</p> <p>COULD: recall the steps in how we hear without needing to look at their worksheets</p>
3b	<p>To understand how our voices produce sounds</p> <p>(10 mins)</p>	<p>Intro: Ask children how they think our voices might work / be produced Ask them to feel their voice boxes while they talk. What do they notice? Watch video that explains how our voices are produced at http://www.youtube.com/watch?v=hKLbJh6C5ns</p> <p>Main: Watch the video again, with children using it to complete a fill in the blanks worksheet</p> <p>Plenary: Collect in worksheets Ask children questions based on the independent work e.g. which part of the body is air exhaled through to produce sound?</p>	<p>Check video opens and plays OK</p> <p>Worksheets</p>	<p>MUST: understand that our voice box vibrates to produce sound</p> <p>SHOULD: correctly fill in the missing words on how we produce our voices</p> <p>COULD: recall the information without looking at their worksheets</p>

To access the complete version of this [Year 4 Sound planning](http://www.saveteacherssundays.com/science/year-4/372/), and all of the resources to go with it, visit

<http://www.saveteacherssundays.com/science/year-4/372/>

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