Year 4 Unit 4: *Sound*

Unit planning guidance

Unit context

This is the fourth Science unit for pupils in Year 4 and the first time they have encountered physics since studying 'Forces and Magnets' and 'Light and shadows' in Year 3. Science in lower Key Stage 2 is designed to enable pupils to broaden their scientific view of the world around them. They do this through exploring, talking, testing, and developing ideas about everyday phenomena and the relationships between living things and familiar environments. They also begin to develop their ideas about functions, relationships, and interactions.

In this unit pupils learn about sound. They will begin by understanding that sound is produced when something vibrates. They first identify this by feeling their own vocal cords vibrating when they speak, by banging a drum with rice, and by placing a tuning fork into water. They will then investigate how different instruments make sound and identify the part of the instrument which vibrates. Once the pupils understand sound and how it is made, they learn that sound travels in waves and can travel through solids, liquids, and gases.

By Lesson 3, pupils will know the basics of sound and then begin investigating how we hear and how we can change both the pitch and volume of sound. They also learn how sound is impacted by distance and design their own investigations to explore this. Pupils learn to name and identify the parts of the ear as well as describe, in a simple form, how we hear a sound once it has travelled to our ears. They investigate the best material to make ear defenders before also investigating pitch, volume, and distance. The unit contains many practical investigations through which the pupils can apply their knowledge and these investigations play a vital role in pupils being able to see evidence of what they have been learning.

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Links to previous and future learning

Year 1	Year 4	KS3
Unit 3: Amazing animals • There are many different types of animal. • Animals can be described in a number of ways. • Animals are living things that eat, grow, breathe, reproduce, and move. • All humans have a skeleton. • The bones in your skeleton help you to stay standing up, let you move around and protect the important organs inside you. • Skin protects the skeleton and organs. • We have five senses: sight, hearing, touch, taste, and smell. • We use different body parts for each sense. • Our senses help to look after us.	**Unit 2: States of matter** • All materials are either a solid, liquid, or gas. • Solids have a firm shape that can be measured in length, width, and height. • Liquids flow easily and change shape to fit their container. • Gases have no fixed shape and fill the space they are contained in.	**Sound waves** • Frequencies of sound waves, measured in hertz (Hz); echoes, reflection and absorption of sound. • Sound needs a medium to travel, the speed of sound in air, in water, in solids. • Sound produced by vibrations of objects, in loudspeakers, detected by their effects on microphone diaphragm and the ear drum; sound waves are longitudinal. • The auditory range of humans and animals.

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Unit Overview		
	Key knowledge	**Key vocabulary**
Lesson 1: ***What is sound and how is it made?***	• All sound is made by vibrations. • We can make a sound by vibrating our vocal cords. • Different instruments make sounds in different ways. **Working scientifically:** • Make careful observations. • Record findings using simple scientific language, drawings, and labelled diagrams. • Use results to draw simple conclusions and make predictions.	• musical instruments • tuning fork • sound • strings • **vibrations** • vocal cords
Lesson 2: ***How does sound travel?***	• Sound travels in waves. • Sound can travel through solids, such as wood and metal. • Sound can travel through liquids, such as water. • Sound can travel through gases, such as air. **Working scientifically:** • Make careful observations. • Record findings using simple scientific language, drawings, and labelled diagrams. • Report on findings from enquiries, including oral and written explanations.	• gas • liquid • solid • **sound waves** • vibrate
Lesson 3: ***How do we hear?***	• Our ears allow us to hear things. • Ears are made up of many different parts: outer ear, ear canal, middle ear, eardrum, inner ear, cochlea, nerve. • Sound waves travel through the different parts of our ear and then send signals to the brain. • It is important to protect our hearing from very loud noises. **Working scientifically:** • Plan simple scientific enquiries. • Use a range of equipment. • Make careful observations. • Record findings using simple scientific language, drawings, and labelled diagrams. • Report on findings from enquiries, including oral and written explanations.	• cochlea • ear canal • **eardrum** • inner ear • middle ear • nerve • outer ear

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Lesson 4: ***What changes the volume of a sound?***	• Volume means how loud or quiet a sound is. • Strong vibrations produce loud sounds. • Weak vibrations produce quiet sounds. • Distance affects the volume of sound; the further away from the source you are, the quieter the sound you hear. **Working scientifically:** • Plan simple scientific enquiries. • Use a range of equipment. • Make careful observations. • Record findings using simple scientific language, drawings, and labelled diagrams. • Use results to draw simple conclusions and make predictions.	• decibel (dB) • distance • vibration • **volume**
Lesson 5: ***What changes the pitch of a sound?***	• Pitch describes how high or low a sound is. • Faster vibrations produce a higher pitch. • Slower vibrations produce a lower pitch. **Working scientifically:** • Use a range of equipment. • Make careful observations. • Record findings using simple scientific language, drawings, and labelled diagrams. • Use results to draw simple conclusions and make predictions.	• **pitch** • vibrations • volume
Lesson 6: ***Make your own musical instrument***	• Musical instruments can be made from lots of things, including fruit and vegetables, boxes, tubes, elastic bands, bottles. • Some instruments can make a range of high and low sounds. • Some instruments can be played loudly or softly. • All instruments make sounds by vibrating, either by plucking, bowing, striking, strumming, or blowing. **Working scientifically:** • Use a range of equipment. • Make careful observations. • Record findings using simple scientific language, drawings, and labelled diagrams.	• **instrument** • pitch • vibrate • volume

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Lesson question	Key knowledge	Learning resources	Key vocabulary
Lesson 1: ***What is sound and how is it made?***	• All sound is made by vibrations. • We can make a sound by vibrating our vocal cords. • Different instruments make sounds in different ways.	Pupil workbook Teaching slides Subject knowledge guide For two activities: • Drum • Rice • Tuning fork Glass of water • Range of musical instruments	• musical instruments • tuning fork • sound • strings • **vibrations** • vocal cords
Outcomes / Assessment	**Key Disciplinary / Substantive concepts**	**Key term**	**Key takeaway**
Pupil workbook Learning review and exit questions Knowledge quiz 4.1 (on next lesson's slide)	• DC4: Make careful observations. • DC5: Record findings using simple scientific language, drawings, and labelled diagrams. • DC7: Use results to draw simple conclusions and make predictions. Sounds are made when something vibrates. Vibrations from sounds travel through a medium to the ear. The pitch of a sound is affected by how quickly an object vibrates. The volume of a sound is determined by the strength of the vibrations that produced it. Sounds get fainter as the distance from the sound source increases.	Vibrations	All sounds are made by ***vibrations.***

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Teaching notes:

- **Existing knowledge:** Begin the lesson by showing the pupils the Existing knowledge slide and ask them what they already know about sound.
- **Introduction:** Share the Learning journey through the unit, and the lesson question, key knowledge, and vocabulary.
- **Talk task:** Pupils place their fingers on their neck and to then make a sound. The purpose of this task is for pupils to feel their vocal cords vibrating and begin to make the link between vibrations and sounds.
- **Read:** What is sound? The section introduces pupils to what sound is and how it is made through vibrations.
- **Retrieval:** Pupils answer the questions in their pupil workbooks.
- **Partner task:** Pupils need to have access to or see what happens when you bang a drum with rice on top, and what happens when you tap a tuning fork and place it into water. These two activities demonstrate that vibrations make sounds. Pupils need to work together to discuss and then write what happens using the word 'vibrate' or 'vibrations'. For example, they may write: When you bang the drum, you can see the rice moving and hear the drum. The rice moves because the drum is vibrating, and you hear a sound because the drum is vibrating.
- **Read: '**How do musical instruments make sounds?'. Ensure pupils understand the key vocabulary in the section.
- **Retrieval:** Pupils complete the matching task. The answers are given on the teaching slides.
- **Investigation:** Pupils investigate musical instruments and the different ways they make sounds. Each group should have access to a carousel of around six different instruments. If possible, the instruments should make sounds in different ways. The instrument column has been left blank so that you can choose the instruments based on what you have access to at
  school. For the investigation, each time, the pupils need to write what the instrument is, how the sound is made (what they do to the instrument to make the sound), and what is vibrating (which part of the instrument they can see vibrating as the sound is made).
- **Class discussion:** The groups should share and discuss their findings as a whole class. Did they all find the same thing? Are there any differences? If so, why might that be?
- **Independent task:** Pupils should describe their findings in the space provided. You could provide pupils with specific vocabulary to use in their explanations.

Learning review and exit questions: Talk partners tell each other a response to the main lesson question: 'What is sound and how is it made?'. Add further review questions if you wish to. Urge pupils to use their new knowledge and vocabulary to answer the question. Pairs can look to improve one another's understanding (peer assess). Take some examples of answers to discuss as a class. Use as an assessment opportunity. Should you wish to, you might ask pupils to write a short independent response to the main lesson question. Ask pupils to answer the multiple-choice 'exit questions' by holding 1, 2, or 3 fingers up to choose an answer. The exit questions can be found on the final teaching slides for this lesson.

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Lesson question	Key knowledge	Learning resources	Key vocabulary
Lesson 2: ***How does sound travel?***	• Sound travels in waves. • Sound can travel through solids, such as wood and metal. • Sound can travel through liquids, such as water. • Sound can travel through gases, such as air.	Pupil workbook Teaching slides Subject knowledge guide For activity: • Paper cups • String Planned route around school	• gas • liquid • solid • **sound waves** • vibrate
Outcomes / Assessment	**Key Disciplinary / Substantive concepts**	**Key term**	**Key takeaway**
Pupil workbook Learning review and exit questions Knowledge quiz 4.2 (on next lesson's slide)	• DC4: Make careful observations. • DC5: Record findings using simple scientific language, drawings, and labelled diagrams. • DC7: Report on findings from enquiries, including oral and written explanations. Sounds are made when something vibrates. Vibrations from sounds travel through a medium to the ear. The pitch of a sound is affected by how quickly an object vibrates. The volume of a sound is determined by the strength of the vibrations that produced it. Sounds get fainter as the distance from the sound source increases.	Sound waves	Sound travels through solids, liquids and gases as ***sound waves.***

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Teaching notes:

- **Knowledge quiz:** Begin the lesson with the Knowledge quiz. The Knowledge quiz is a low way of assessing the knowledge retained from the previous lesson. Pupils answer the questions in their pupil workbooks and record their scores on the Knowledge quiz scores page. Answers are included on these slides.
- **Introduction:** Share the Learning journey through the unit and the lesson question, key knowledge, and vocabulary.
- **Talk task:** Pupils discuss how they think the sound travels from the drum to the child's ear. You could have an actual drum in the classroom and ask the pupils how the sound travels from that drum to their own ears. Take ideas from the whole class after the pupils have discussed with their talk partners.
- **Read: '**What are sound waves and how can they travel?'. Make links back to Unit 2 'States of matter', where pupils learned about solids, liquids, and gases.
- **Investigation:** Pupils build string telephones to show that sounds can be transmitted by solids (when the string is taut). Ask pupils how the sound wave travels from their voice to their partner's ear. An ideal response would be: voice box / vocal cords vibrate, the air vibrates, the cup vibrates, the string vibrates, the other cup vibrates, the air vibrates, and the sound reaches the partner's ear.
- **Retrieval:** Pupils answer the questions in their pupil workbooks.
- **Investigation:** Pupils investigate travelling sounds by walking around the school and stopping in five different locations. At each location they should describe what they can hear, but also consider what the sound has travelled through to reach their ears. It is recommended that, prior to the investigation, you plan out the route that pupils will take. As an example, if the classroom is the first location, pupils are likely to be able to hear the noise of the classroom but perhaps also the noise of the classroom next door. The noise of the classroom they are in is travelling through a gas, but the noise of the classroom next door would be travelling through a gas and a solid. It will be difficult to find any sounds that have travelled through a liquid, but use this as a discussion point after the investigation.
- **Class discussion:** The groups should share and discuss their findings as a whole class. Did they all find the same thing? Are there any differences? Is so, why might that be?
- **Independent task:** Pupils should complete the conclusion to the investigation in the space provided. You could provide pupils with specific vocabulary to use in their conclusions.

Learning review and exit questions: Talk partners tell each other a response to the main lesson question: 'How does sound travel?'. Add further review questions if you wish to. Urge pupils to use their new knowledge and vocabulary to answer the question. Pairs can look to improve one another's understanding (peer assess). Take some examples of answers to discuss as a class. Use as an assessment opportunity. Should you wish to, you might ask pupils to write a short independent response to the main lesson question. Ask pupils to answer the multiple-choice 'exit questions' by holding 1, 2, or 3 fingers up to choose an answer. The exit questions can be found on the final teaching slides for this lesson.

Lesson question	Key knowledge	Learning resources	Key vocabulary

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Lesson 3: ***How do we hear?***	• Our ears allow us to hear things. • Ears are made up of many different parts: outer ear, ear canal, middle ear, eardrum, inner ear, cochlea, nerve. • Sound waves travel through the different parts of our ear and then send signals to the brain. • It is important to protect our hearing from very loud noises.	Pupil workbook Teaching slides Subject knowledge guide Model of ear (optional) For investigation, for example: • Buzzers • Five different materials to muffle the sound • Boxes	• cochlea • ear canal • **eardrum** • inner ear • middle ear • nerve • outer ear
Outcomes / Assessment	**Key Disciplinary / Substantive concepts**	**Key term**	**Key takeaway**
Pupil workbook Learning review and exit questions Knowledge quiz 4.3 (on next lesson's slide)	• DC2: Plan simple scientific enquiries. • DC3: Use a range of equipment. • DC4: Make careful observations. • DC5: Record findings using simple scientific language, drawings, and labelled diagrams. • DC7: Report on findings from enquiries, including oral and written explanations. Sounds are made when something vibrates. Vibrations from sounds travel through a medium to the ear. The pitch of a sound is affected by how quickly an object vibrates.	Eardrum	Inside the ear sound waves cause the ***eardrum*** to vibrate, this then causes the inner ear to vibrate and send signals to the brain so we hear.

	The volume of a sound is determined by the strength of the vibrations that produced it. Sounds get fainter as the distance from the sound source increases.		

Teaching notes:

- **Knowledge quiz:** Begin the lesson with the Knowledge quiz. The Knowledge quiz is a way of assessing the knowledge retained from the previous lesson. Pupils answer the questions in their pupil workbooks and record their scores on the Knowledge quiz scores page. Answers are included on the slides.
- **Introduction:** Share the Learning journey through the unit and the lesson question, key knowledge, and vocabulary.
- **Talk task:** Pupils discuss how we hear something. Take ideas from the whole class after the pupils have discussed this with their talk partner.
- **Read:** 'What happens when sounds reach our ears?'. This section of text explains how we hear, and also introduces pupils to a range of key vocabulary. A model of the ear would support pupils in accessing and understanding the text.
- **Partner task:** Pupils should work together to label the parts of the ear. The section of text is designed to support them with this. To scaffold this task, you could provide pupils with the labels as printed labels that pupils can move around. Answers are given on the slides.
- **Retrieval:** Pupils are asked to complete the flow diagram in the pupil workbook showing how sound reaches our ears. Answers are given on the slides.
- **Investigation:** Pupils are asked to investigate how we can protect our ears. This investigation has been left open so that you can set the investigation up based on what you have available in school. Pupils are provided with space to note down how this investigation may be carried out. It is up to you as to whether you follow their lead or pre-plan the investigation in its entirety. Either way, pupils should still generate ideas, and as a class they should discuss the pros and cons of each idea. One way of carrying out the investigation would be to provide groups with buzzers, or similar, and ask them to wrap the buzzer in different materials to test how much they muffle the sound. The buzzer could also be placed inside a box and the box wrapped in each material. Pupils are provided with space to write up their investigation. They should write down the aim, equipment they are using, and their method before they begin. Then they complete the results table as they test each material. They use the scale to show how loud the sound is each time; use 10 as the sound before it is muffled at all. Pupils need five different materials for this investigation.
- **Class discussion:** The groups should share and discuss their findings as a whole class. Did they all find the same thing? Are there any differences? Is so, why might that be?
- **Independent task:** Pupils should complete the conclusion to the investigation in the space provided. You could provide pupils with specific vocabulary to use in their conclusions.

Learning review and exit questions: Talk partners tell each other a response to the main lesson question: 'How do we hear?'. Add further review questions if you wish to. Urge pupils to use their new knowledge and vocabulary to answer the question. Pairs can look to improve one another's understanding (peer assess). Take some examples of answers to discuss as a class. Use as an assessment opportunity. Should you wish to, you might ask pupils to write a short independent response to the main lesson question.

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Ask pupils to answer the multiple-choice ‘exit questions’ by holding 1, 2, or 3 fingers up to choose an answer. The exit questions can be found on the final teaching slides for this lesson.

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Lesson question	Key knowledge	Learning resources	Key vocabulary
Lesson 4: ***What changes the volume of a sound?***	• Volume means how loud or quiet a sound is. • Strong vibrations produce loud sounds • Weak vibrations produce quiet sounds. • Distance affects the volume of sound. The further away from the source you are, the quieter the sound you hear.	Pupil workbook Teaching slides Subject knowledge guide Musical instruments (optional)	• decibel (dB) • distance • vibration • **volume**
Outcomes / Assessment	**Key Disciplinary / Substantive concepts**	**Key term**	**Key takeaway**
Pupil workbook Learning review and exit questions Knowledge quiz 4.4 (on next lesson's slide)	• DC2: Plan simple scientific enquiries. • DC3: Use a range of equipment. • DC4: Make careful observations. • DC5: Record findings using simple scientific language, drawings, and labelled diagrams. • DC7: Use results to draw simple conclusions and make predictions. Sounds are made when something vibrates. Vibrations from sounds travel through a medium to the ear. The pitch of a sound is affected by how quickly an object vibrates. The volume of a sound is determined by the strength of the vibrations that produced it. Sounds get fainter as the distance from the sound source increases.	Volume	The larger the vibration, the louder the ***volume*** of sound produced.
Teaching notes:			

- **Knowledge quiz:** Begin the lesson with the Knowledge quiz. The Knowledge quiz is a way of assessing the knowledge retained from the previous lesson. Pupils answer the questions in their pupil workbooks and record their scores on the Knowledge quiz scores page. Answers are included on the slides.
- **Introduction:** Share the Learning journey through the unit and the lesson question, key knowledge, and vocabulary.
- **Talk task:** Pupils discuss what the word 'volume' means. When have they heard the word used? Take ideas from the whole class after the pupils have discussed with their talk partner.
- **Read:** What is volume? This section of text introduces pupils to the science of volume—how vibrations can be different strengths and the link between the strength of a vibration and the volume of the sound produced. Ensure pupils do not incorrectly use 'soft' as the opposite of 'loud': explain that soft is the opposite of hard.
  Retrieval: Pupils should respond to the questions which are based on the text.
- **Investigation:** Pupils are asked to investigate how distance affects the volume of a sound. They can use a musical instrument or their voice, or a clap of their hands, for the sound.
- **Class discussion:** The groups should share and discuss their findings as a whole class. Did they all find the same thing? Are there any differences? Is so, why might that be?
- **Independent task:** Pupils should complete the conclusion to the investigation in the space provided. You could provide pupils with specific vocabulary to use in their conclusions.

Learning review and exit questions: Talk partners tell each other a response to the main lesson question: 'What changes the volume of a sound?'. Add further review questions if you wish to. Urge pupils to use their new knowledge and vocabulary to answer the question. Pairs can look to improve one another's understanding (peer assess). Take some examples of answers to discuss as a class. Use as an assessment opportunity. Should you wish to, you might ask pupils to write a short independent response to the main lesson question. Ask pupils to answer the multiple-choice 'exit questions' by holding 1, 2, or 3 fingers up to choose an answer. The exit questions can be found on the final teaching slides for this lesson.

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Lesson question	Key knowledge	Learning resources	Key vocabulary
Lesson 5: ***What changes the pitch of a sound?***	• Pitch describes how high or low a sound is. • Faster vibrations produce a higher pitch. • Slower vibrations produce a lower pitch.	Pupil workbook Teaching slides Subject knowledge guide Classical music (optional) Same-sized glass bottles filled with different amounts of water Musical instruments to investigate: three per group Drinking straws (optional)	• **pitch** • vibrations • volume
Outcomes / Assessment	**Key Disciplinary / Substantive concepts**	**Key term**	**Key takeaway**
Pupil workbook Learning review and exit questions Knowledge quiz 4.5 (on next lesson's slide)	• DC3: Use a range of equipment. • DC4: Make careful observations. • DC5: Record findings using simple scientific language, drawings, and labelled diagrams. • DC7: Use results to draw simple conclusions and make predictions. Sounds are made when something vibrates. Vibrations from sounds travel through a medium to the ear. The pitch of a sound is affected by how quickly an object vibrates.	Pitch	The faster the vibration, the higher the ***pitch*** of the sound produced.

	The volume of a sound is determined by the strength of the vibrations that produced it. Sounds get fainter as the distance from the sound source increases.		

Teaching notes:

- **Knowledge quiz:** Begin the lesson with the Knowledge quiz. The Knowledge quiz is a way of assessing the knowledge retained from the previous lesson. Pupils answer the questions in their pupil workbooks and record their scores on the Knowledge quiz scores page. Answers are included on the teaching slides.
- **Introduction:** Share the Learning journey through the unit and the lesson question, key knowledge, and vocabulary.
- **Talk task:** Pupils discuss high and low sounds. Which sounds would they describe as high, and which sounds would they describe as low? Take ideas from the whole class after the pupils have discussed with their talk partner.
- **Read:** What is pitch? This section of text explains the science of pitch. Before reading, pupils could listen to some classical music which is played by instruments of different pitches—*Peter and the Wolf*, composed by Prokofiev, is a great example of this and is accessible for pupils. Ensure they understand that we can have loud sounds with both a high and a low pitch, and we can have quiet sounds with both a high and a low pitch.
- **Investigations 1 and 2:** Pupils are asked to investigate how high-pitched and low-pitched sounds are made. They need to be provided with three different instruments. The first set should be glass bottles filled with different amounts of water (as per the image on the slide). For this set, you could tap each bottle yourself and complete the results section as a class—this would model the investigation to the pupils and ensure they are completing the results section correctly. For the remainder of the investigation, pupils need to be provided with instruments which can produce different pitches e.g., a glockenspiel or xylophone, four different sized drums, a stringed instrument where the strings are different thicknesses. Another option is for pupils to make their own straw oboes which they then cut and make shorter in stages (creating four different versions of the same instrument). After investigating each instrument, pupils are asked to record the pattern they notice—what pupils should notice is that the smaller, shorter, thinner instruments make higher pitched sounds. These instruments, or parts of instruments, must vibrate faster.
- **Class discussion:** The groups should share and discuss their findings as a whole class. Did they all find the same thing? Are there any differences? Is so, why might that be?
- **Independent task:** Pupils should complete the conclusion to the investigation in the space provided. Pupils are provided with vocabulary to use in their explanations / conclusions.

Learning review and exit questions: Talk partners tell each other a response to the main lesson question: 'What changes the pitch of a sound?'. Add further review questions if you wish to. Urge pupils to use their new knowledge and vocabulary to answer the question. Pairs can look to improve one another's understanding (peer assess). Take some examples of answers to discuss as a class. Use as an assessment opportunity. Should you wish to, you might ask pupils to write a short independent response to the main lesson question. Ask pupils to answer the multiple-choice 'exit questions' by holding 1, 2, or 3 fingers up to choose an answer. The exit questions can be found on the final teaching slides for this lesson.

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Lesson question	Key knowledge	Learning resources	Key vocabulary
Lesson 6: ***Make your own musical instrument***	• Musical instruments can be made from lots of things, including fruit and vegetables, boxes, tubes, elastic bands, bottles. • Some instruments can make a range of high and low sounds. • Some instruments can be played loudly or softly. • All instruments make sounds by vibrating, either by plucking, bowing, striking, strumming or blowing.	Pupil workbook Teaching slides Knowledge Organiser Resources for instruments, e.g. plastic bottles, shoe boxes, cardboard tubes, elastic bands of different lengths / thicknesses	• **instrument** • pitch • vibrate • volume
Outcomes / Assessment	**Key Disciplinary / Substantive concepts**	**Key term**	**Key takeaway**
Pupil workbook Learning review and exit questions Knowledge quiz 4.6	• DC3: Use a range of equipment. • DC4: Make careful observations. • DC5: Record findings using simple scientific language, drawings, and labelled diagrams. Sounds are made when something vibrates. Vibrations from sounds travel through a medium to the ear. The pitch of a sound is affected by how quickly an object vibrates. The volume of a sound is determined by the strength of the vibrations that produced it. Sounds get fainter as the distance from the sound source increases.	Instrument	All ***instrument***s make sounds by vibrating, either by plucking, bowing, striking, strumming or blowing.

Teaching notes:

- **Knowledge quiz:** Begin the lesson with the Knowledge quiz. The Knowledge quiz is a low stakes way of assessing the knowledge retained from the previous lesson. Pupils answer the questions in their pupil workbooks and record their scores on the Knowledge quiz Scores page. Answers are included on the teaching slides.
- **Introduction:** Share the Learning journey through the unit and the lesson question, key knowledge, and vocabulary.

- **Talk task:** Show pupils the photo of people playing vegetable instruments on the teaching slide. Ask pupils how they think these instruments work.
- **Practical task:** Pupils build their own instrument from a range of materials. They need to make an instrument which is capable of both loud and quiet sounds and high and low sounds (this may involve making a collection of related instruments, e.g. a mini drum kit). Pupils should draw their instruments in their pupil workbooks and describe how these make sound, how they change the volume, and how they change the pitch. You could then challenge pupils to form a band and produce a tune that their peers could recognise.
- **Knowledge quiz:** Pupils complete the Knowledge quiz about designing a child's night light in their pupil workbooks and record their scores on the Knowledge quiz Scores page. Answers are included on the teaching slides.