

Year 4 Topic Learning for week beginning: Tuesday 6th January 2021

Information

This week there are 3 science lessons planned for you to enjoy. I understand that these may be tricky to do at home, so just try your best. I will attach any worksheets you need at the end of this document and alongside, on the website, there will be PowerPoints available.

There is a science knowledge organiser attached and this covers everything we will be covering in our science lessons over the next couple of weeks.

Walk on Wednesday ...feel free to do another day instead. 😊

Resources needed for science this week if you have these available - please do not go out and get these, stay safe. It doesn't matter if you are not able to complete everything. If you have any rice and a drum around, you could try the first little experiment - but there is no need for you to do this.

Plastic or paper straws and scissors.

Resources needed next week and the week after - again please do not go out and get these, stay safe. next couple of weeks:

- string & 2 paper cups to make a string telephone
- ringing alarm clock or alarm on a phone for an experiment to see how far away you can hear the alarm
- a music player - e.g. a phone or something else which can make a noise, different materials to wrap this up (tea towel, bubble wrap, tin foil, t-shirt etc) - an investigation to see if you can soundproof the music.
- Collect some recycling to create a junk modelled musical instrument (we will be doing this in 2 weeks) but a heads up give you a good start at collecting things.

I would love to see a photo of your learning...perhaps you would like to send me a picture of your poster, or a video of your walk. I hope you enjoy learning all about sound.

Lesson 1 - Wednesday - Science

Good Vibrations To identify how sounds are made, associating some of them with something vibrating, by identifying and explaining sound sources around the local.

Enjoy watching this video clip about sound:
Music / Science KS2: What is sound? - BBC

Teach

Watch the attached PowerPoint. Do not worry about completing the sheet it says about the mind map of what you already know - you don't need to do this.

What is sound - this clip is shown in the PowerPoint.

Sounds made from different types of musical instruments - KS2 Science - BBC

Bitesize

Instead of going on a sound hunt around school, go on a sound hunt either around your local area (perhaps on your daily exercise) or you could do this in different areas of your home. Listen very carefully for even the quietest sounds. What can you hear? What is making the sound? How is the sound being made?

Complete the attached worksheet. You can complete this in a different way such as making a poster about what you hear, using a map or making a little video as you walk around your locality.

For more information on this lesson and adult, background notes, this can be accessed at:

Access this lesson using pin code: **CJ6259**
at Twinkl Go

Lesson 2 -Thursday Science

To Explain How Sounds Travel

You can watch this video clip about how drums make sounds: [Music / Science KS2: How drums make sound - BBC Teach](#)

[How drums make sound - BBC Teach](#)

Watch the PowerPoint which tells you about sound being vibrations that travel to our ears. The louder the sound, the bigger the vibrations.

There is a little experiment you can do with this if you place rice on a drum skin. Observe what happens. I am not expecting you to be able to try this at home - do not worry.

There is a link to watch in the PowerPoint and this is it: [Understanding sound - KS2 Science - BBC Bitesize](#)

How do we hear sounds? Look at the structure of the ear. For your task create a colourful poster explaining how sound travels to our ears and how we hear this.

Make sure you remember to include a diagram of the ear.

For more information on this lesson and adult, background notes, this can be accessed at:

Access this lesson using pin code: **CJ9032** at [Twinkl Go](#)

Lesson 3 - Friday - Science

To explore ways to change the pitch of a sound.

You can watch this video clip about how woodwind instruments make sounds.

[Music / Science KS2: How woodwind instruments make sound - BBC Teach](#)

Watch the PowerPoint which tells you about changing the pitch of a sound. Here are the links to the video clip in the PowerPoint

[What makes noise sound higher or lower? - KS2 Science - BBC Bitesize](#)

[Making sounds with different pitches - KS2 Science - BBC Bitesize](#)

Have fun making a reed straw - this is explained in the PowerPoint and on the worksheet as PanPipes. We will show you how to make these as a video clip - it is great fun, but do not worry if you haven't got the resources, you will still learn by watching the video we attach.

Complete the worksheet with a drawing of your PanPipes and tell me how you made these. Or you can make a little poster explaining or take some photos. Rather than making a whole set of panpipes, you could make a low and a high one and explain the difference.

I hope you enjoy this. 😊

For more information on this lesson and adult, background notes, this can be accessed at:

Access this lesson using pin code: **CJ0715** at [Twinkl Go](#)

Wednesday's Science worksheet - Sound Survey

Describe the sounds you could hear in the place you visited in your school, and explain what was vibrating to make each sound. ~ ~ ~

What sounds could you hear?	What was vibrating to make the sound?

Suggestions:

- People's vocal chords.
- The floor.
- The air.
- The table.

What was the noisiest place that you visited around your school? _____



Straw Pan Pipes

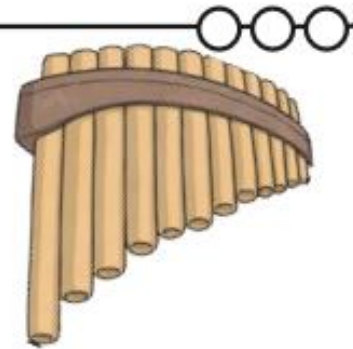
Use several straws to make a set of pan pipes! Each straw should play a different pitch when you blow into it.

Flatten the end 2cm of each straw, and cut a triangle in the end.

Prepare several straws like this, then think about how to change the pitch of the sound each straw makes. Stick or tie the straws together to make your set of pan pipes.

Blow hard through the triangle end of the straw to make a sound. You may have to try a few times to make the sound!

Draw a picture or stick a photo of your finished pan pipes in the box below.



Use these words to help you write your explanation:

sound

vibration

pitch

high

low

short

long

air

different

length

Explain how you created your pan pipes so that they can play sounds of different pitches.
