

# DESIGN AND TECHNOLOGY

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Wednesday 21<sup>st</sup> October 2020

# Starter: Sound Quiz

## Question 1.

Sound is caused by \_\_\_\_\_.

- a) ear drum
- b) volume
- c) vibrations

# Starter: Sound Quiz

## Question 2.

The pitch of a sound tells us \_\_\_\_\_.

- a) how low or high a sound is
- b) how loud or quiet a sound is
- c) how big or small a sound is

# Starter: Sound Quiz

## Question 3.

Which sound has the higher pitch?

a) Bird's chirping

b) Dog's bark



Bird's chirping



Dog's Bark

# Starter: Sound Quiz

## Question 4.

For an object to create sound it must \_\_\_\_\_.

- a) produce heat
- b) vibrate
- c) be touching your ear

# Starter: Sound Quiz

## Question 5.

Sound is a form of energy.

a) true

b) false

# Starter: Sound Quiz

## Question 6.

Identify the action that produces sound in this object.

- a) plucking strings
- b) blowing air
- c) hitting the strings



Guitar

# WALT: Plan and design a method of blocking sound

S2S: I can

- Generate ideas considering the purposes for which I am designing
- Select an idea to form my own plan and design
- Create a labelled drawing to show specific features



# TASC Wheel



## Gather/Organise

What do I know about this?  
Where have I met this before?  
What information do I have?  
How much do I understand?  
What questions can I ask?

How do we  
hear  
sounds?

Gather/Organise

What do I  
know about  
this?

# Here is a method we could use to block sound.

- Ear defenders.



- Would this be a good idea for Sam?

## Identify

What is the task?

What are my goals?

What are the obstacles?

What do I need to know?

What do I need to do this?



Plan and make a set of ear defenders to block out sound to help Sam.

Let's  
brainstorm...

How many ideas  
can I think  
of?

Generate

**Generate**

How many ideas can I find?  
Who can help me?  
Where can I find out more?  
What do other people think?  
Is there another way?

# Let's generate ideas: What could we use to make ear defenders to help Sam?

- What shape will they be?
- What material should we use?
- How big should they be?
- Should we fill them with anything?
- What?
- How will we attach the material?
- What will they look like?

## **Decide**

Which ideas are important?  
Which is the best idea?  
What will happen if...?  
What is my plan?  
What else do I need to do?

Let's  
decide...

Which is  
the best  
idea?

**Decide**

# Let's decide which idea is best.

From our class brainstorm, you will need to plan your own ear defenders. You will need to decide...

- Size and shape of ear defenders.
- Material for the outside of the ear defenders.
- What will the ear muff be filled with?
- How will I secure the material to the ear defender?
- What will my ear defenders look like?



# Planning template

- Size and shape of ear defenders.
- Material for the outside of the ear defenders.
- What will the ear muff be filled with?
- How will I secure the material to the ear defender?
- What will my ear defenders look like?

# Create a labelled drawing.

- Using your plans, draw your own ear defenders for Sam. Label each feature.