

Willerby Carr Lane Primary School – Design and Technology

Topic: Musical Instruments

Year: 2

Strand: Structures

What should I already know?

- Understand that different types of sounds can be made using different techniques e.g. shaking, scraping, hitting, and plucking
- Learnt ways of showing their design ideas on paper
- Joined and cut paper, card, wood, plastic in different ways, using basic tools e.g. scissors and snips safely and effectively
- Skills in basic joining techniques for 3D modelling using glue and tape.
- Learnt different finishing techniques.

What will I know / be able to do by the end of the unit?

How are percussion instruments made and how do they differ around the world?	<ul style="list-style-type: none"> • Recognise that sounds can be created in many ways. • Understand the basic concept of how each instrument works, the sound it produces. • Produce clear labelled diagrams of instruments.
How can we successfully evaluate instruments to support the designing of our own?	<ul style="list-style-type: none"> • When evaluating instruments, identify: • How the instrument is held • How the instrument is played (hitting, plucking, tapping, scraping) • What type of sound will be made?
Why is it important for structures to be stable and what are the different ways to strengthen them	<ul style="list-style-type: none"> • It is important structures are stable to stop them falling over and to make them fit for purpose. • How wide the base of an instrument or its shape if handheld, can make it more stable. • Certain materials are more stable than others. • Art straws, masking tape, strips of wood, paper clips and PVA glue can be used to strengthen structures.
What should we consider when designing our instrument	<ul style="list-style-type: none"> • Available materials: wood strips, cardboard, baking parchment, masking tape, paper, card, recycled coffee cups, cotton, string, pva.

(djembe drum)?

- How does the sound change by changing the skin material?
- How should a djembe be decorated?

Vocabulary

Designing	
aesthetics	The consideration of how the final product will look.
component	The different parts of the djembe.
decoration	Materials used to make the djembe attractive
djembe drum	A rope-tuned skin-covered goblet drum played with bare hands, originally from West Africa.
natural resources	Materials that have not been made by humans/artificially, e.g. tree bark, twigs.
purpose	What the djembe will be used for
quality	The finished drum should be safe to use and be decorated in a traditional African style.
stability	The strength to stand or endure.
Making	
attaching	Connecting the components together.
cutting	The action of cutting something.
layering	The inside layer will be the structure and the outside layer will be the decoration.
measuring	Using a ruler to ensure components fit before fixing.
order	The order in which the djembe will be designed, made, and decorated.
Knowledge and understanding	
durability	How strong, tough, hard-wearing, and resistant a material is.
frame	The structure that will hold together the finished product.
free-standing	An item that can stand on its own without support or attachments.
note	A symbol denoting a musical sound.
pitch	How high or low a note is.

Key Design Decisions & Skills

- Designing: investigate, survey, plan, research. Decide on shape of base and how the skin will be attached.
- Making: measuring, selecting appropriate materials, shaping, cutting, gluing.
- Knowledge and understanding: sound, note, pitch, the names of instruments available e.g. djembe drum, shekeres and their component parts e.g. skin, bridge – strengthen, reinforce.

Tools and Resources

- A collection of simple musical instruments or pictures including some from other times and cultures.
- Paper, cardboard, coloured card, clear adhesive tape, masking tape, PVA glue, string, rubber bands, string, recycled coffee cups, scissors.
- Stripwood (assorted sections and sizes), dowel rod.
- Range of basic tools for cutting and shaping, card and wood.
- Paints and brushes.

Pictures



