

SAMPLE LESSON PLAN

Instrument creation

Learning Focus: Invent your own instrument

Activity length: 45 minutes

Suitable for PP-YR6

If appropriate, teachers can choose 4-6 students to demonstrate their instruments.

INTRODUCTION:

Each family of instruments makes sounds by creating vibrating soundwaves that travel to our eardrums. You are going to create an instrument from the String, Woodwind, Brass or Percussion family. There are some materials and tools needed.

LESSON CONTENT:

How does each instrument family make its sound?

String family instruments produce sound by the vibration of stretched strings. The body of the instrument is hollow and the strings that are stretched over can be vibrated by plucking or by drawing a bow across them.

Woodwind family instruments were traditionally made of wood, but some are now constructed of metal. The cylinders have an opening at the bottom end and a mouthpiece at the top, which you blow air through. You can change pitch by opening or closing the holes (or keys) with your fingers.

Brass family instruments are made of brass and are long pipes that have been shaped to make them easy to hold and play. To create a sound, musicians vibrate their lips by buzzing them against a metal cup-shaped mouthpiece.

Percussion family instruments include any that require you to hit, shake or scrape to make a sound.

Divide students into four groups and assign an instrument to make.

For advanced students, challenge them to use these ideas to invent their own versions of instruments within each orchestral section.

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STRINGS – BOX GUITAR

Materials/Tools needed:

- Cardboard box e.g. shoebox, tissue box, cereal box
- 3 different-sized rubber bands
- Scissors
- 2 chopsticks
- A pencil
- Glue

Instructions:

1. Glue any open ends of the box shut.
2. Trace a circle or square hole in the middle of one side of the box.
3. Cut out the traced shape to make a sound hole.
4. Stretch the rubber bands over the box so that they sit over the sound hole.
5. Insert the chopsticks under the strings near the edges to create a bridge either side.
6. Pluck away!

To save time, trace or pre-cut the boxes. Search “DIY box guitar” to see video examples.

WIND – DIY KAZOO

Materials/Tools needed:

- Roll of baking paper
- Old toilet roll
- Scissors
- Small rubber band
- Ruler

Instructions:

1. Measure and cut a 10cm x 10cm square of baking paper.
2. Place the baking paper over the top of the toilet roll and use one of your hands to make sure the edges of the baking paper go down the sides of the toilet roll.
3. While holding the paper in place over the toilet roll, use your other hand to place the rubber band over the toilet roll to hold the paper.
4. Gently pull down the edges of the baking paper so that over the top of the toilet roll, the baking paper is as tight as you can make it.
5. Sing into the open end to check that your kazoo works, or if the paper needs to be tightened further.

To save time, pre-cut the squares of baking paper. [DIY Kazoo demonstration](#)

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BRASS – HORNPIPE AND FUNNEL

Materials/Tools needed:

- Flexible tubing, 140cm length
- Pipe cleaners or sticky tape
- Funnel

Instructions:

1. Push the funnel into the pipe. If it isn't a snug fit, tape the funnel onto the pipe.
2. Holding the funnel end pointing upwards, loop the pipe around twice. Leave enough pipe to have the mouthpiece pointing upwards.
3. Secure the coiled pipe with pipe cleaners or tape.
4. Buzz your lips against the mouthpiece (like blowing a raspberry).

Flexible tubing/piping could include garden hose, clear vinyl tube or corrugated conduit. Search “DIY French Horn” to see video examples.

PERCUSSION – WATER BOTTLE MARACAS

Materials/Tools needed:

- Empty plastic water bottles
- Uncooked rice, buttons, sand, pebbles or beads
- Funnel
- Sticky tape
- Coloured tape, markers or paint (optional)

Instructions:

1. Place the funnel to assist pouring in your shaking ingredient.
2. Fill a third of the way up the bottle.
3. Remove the funnel and fasten the lid tightly.
4. Secure the lid with sticky tape.
5. Decorate your bottle with bright colours (optional).

These can also be made with jars, cans, tins or toilet rolls. Just make sure the ends are secure so that the shaking ingredient doesn't fall out. If you would like to reuse beads, buttons, etc. you do not need to tape the lid on.

EXTENSION: Discuss improvisation in music using *Sing Sing Sing* by Louis Prima as an example with particular focus on the clarinet solo. In a circle students can take turns playing solos over a simple ostinato pattern played by the teacher either on the piano or a drum. The students' solos can be 1-2 bars long and be done with rhythm and body percussion alone or using melodic instruments.