Make an Idiophone

Sections

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Scouts VICTORIA

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Challenge Areas

COMMUNITY
CREATIVE
OUTDOOR
PERSONAL GROWTH

Scout Method Elements

COMMUNITY INVOLVEMENT
LEARNING BY DOING
NATURE AND THE OUTDOORS
PROMISE AND LAW
PERSONAL PROGRESSION
PATROL SYSTEM
SYMBOLIC FRAMEWORK
YOUTH LEADING, ADULTS SUPPORTING

SPICES Growth Areas

CHARACTER
EMOTIONAL
INTELLECTUAL
PHYSICAL
SOCIAL
SPIRITUAL

The Adventure

Music isn't just limited to instruments that play notes. Percussion can form the backbone of music. Using recycled materials, you can make your own rattle stick to add some rhythm to your music.

Plan

1. Investigate percussion, what it is and why it is important to music. There are a range of resources available to you, but this website might provide you with a good starting point.
2. Investigate vibration and how different materials vibrate differently. What factors affect vibrations and their sounds?
3. Investigate idiophones and how they work. Idiophones are a type of musical instrument and, as such, there are a lot of different types of idiophones.
4. Decide what type of idiophone you would like to make. You can find a range of instructions for different idiophones or you can make the bottle top rattle in the 'do' section.
5. Read the safety section of this challenge card and make sure that everyone is aware of the safety risks and requirements.
6. Collect all the necessary materials for your experiment. You will require the following materials: a long wooden stick such as an old broom handle, a drill with an attached drill bit that is smaller than the width of the nails being used, many metal bottle caps, nails, and a hammer.

Do

1. Get a long wooden stick – an old broom handle works well. You can use whatever length stick you like but you should make sure that the stick is several centimetres wide. You may find it useful to have a square stick rather than a round stick.
2. Drill (or get an adult to drill) some holes just smaller than the width of the nails you will be using into the stick. Make sure they are at least two centimetres apart but you can get as creative as you like with how you lay out the holes and how many holes you make. You should also make sure that there is enough space without holes for you to hold your bottle cap stick at one end.
3. Make a hole in the centre of double the amount of metal bottle caps as you have made holes in the stick. The holes in the bottle caps need to be slightly wider than the shaft of the nails that you are using but smaller than the head of the nail so that the nail will hold them in place on the instrument. You can do this by hammering a nail through the bottle cap and wriggling it around to make the hole larger or you can use a drill with a drill bit that is slightly larger than the nail.
4. Put a nail through the holes of two bottle caps and nail it into the holes that were previously drilled. You want the caps to be held in place on the stick but importantly, they must be able to rattle around.
5. If desired, make a rattler stick to go with your bottle cap stick. You can do this by cutting – or having an adult help you cut – notches into one end of a shorter piece of dowel. You should have one zig zag end and one smooth end to hold.
6. If you have a longer bottle cap stick, you can play it by tapping it against the floor or, with a rattler stick, drawing the rattler stick along the area of your bottle cap stick that does not have any bottle caps on it. How do these different methods change the sound produced? If you have made a shorter bottle cap stick, you can play it by shaking the stick like playing maracas.
7. See what you can play.

Review

1. Did your idiophone perform as you expected? Why or why not?
2. What did you enjoy the most from making an idiophone? What did you learn?
3. If you were to do this activity again, what would you do the same? What would you do differently? How could you improve your idiophone? What other materials do you think you could use?

Safety

- Sharps warning: This Challenge Card uses thin metal which may be sharp and cause cuts.
- This Challenge Card uses hammers and nails which can cause injuries. Youth members should be supervised by an adult or have an adult assist them, depending on the section.
- A drill may be used in the Challenge Card. This should be done by an adult or older youth member under adult supervision.
- Splinter risk: Depending on the stick used to build your bottle cap stick, the risk of splinters may be present and therefore care should be taken.

Variations

- Make a series of different idiophones varying in cap layout, stick size, and cap size to see what difference it makes. Could you use jar lids? What other materials could you use?
- This Challenge Card pairs nicely with other challenge cards from the Magic of Music such as Make a Guitar, Make Glasses, and Make Glass Bottles Sing. In your Patrol, you could make a range of instruments and play them together. Think about what other instruments that you may be able to make.

- Depending on the focus, this Challenge Card can work well with either a STEM & Innovation or Arts & Literature Focus.