String Telephones

Sections

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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

Explore how sound waves travel by building a string telephone. Challenge your communication skills and test just how well you can communicate using your string telephone.

Plan

1. Investigate sound and how it travels. You may like to model sound waves using a slinky to visualize how sound travels from one space to another. Play some loud music and either place your hand on the speaker, or feel the floor or table around you, what do you notice? You can also try placing your hand on your throat and making a long ‘ahh’ sound, what do you feel? This website is a good starting point for understanding how string phones work.
2. Read the safety requirements and discuss with you leaders/adults supervisors what supervision and safety requirements might be needed.
3. Collect the materials required for the activity. Communicate with your patrol and leaders if you need to bring items from home. You will need two paper cups, a pair of scissors or a sharp pencil, a length of string (ideally around 1 metre), two paper clips, and some stickey tape. You will also need enough space that you can stretch the string tight when talking on the string phone and another person to talk to.

Do

1. Create a small hole in the bottom of each of the two paper cups. You may need to use scissors, a sharp pencil, or a nail.
2. Thread a piece of string through the hole and tie the end on the inside to a paperclip so it doesn’t slip out of the cup. If you don't have a paper clip, you can tie some knots and/or tape the string to the inside of the cup. Cut your string, and do the same to the other end. You can make your string as long or as short as you want but be mindful of the space you have available to you and that if multiple string phones are in use, they may get tangled.
3. Test out your string phone and call a friend! Get in position so the string is tight. Speak into the cup while your friend on the other end holds the phone to their ear to listen. Try to have a conversation!
4. See how far you can make your string phones reach. You may like to experiment with different lengths of string.
5. Experiment with your string telephones. What happens if the string is loose? What happens if you place your hand on the string while using the phone?
6. Test your string phones with some communication games. Try sending a secret message on the string phone through your whole unit, passing the message along to each other one at a time. Did the secret message make it through the whole unit?

Review

1. How does the string phone work? How did the sound travel along the string to your cup?
2. What have you learnt about sound during this activity?
3. Do real telephones work the same way? What is the same? What is different?
4. If you were to do this activity again, what would you do the same? What would you do differently? What did you enjoy most about this activity?

Safety

- Sharps warning: You may need to use scissors or other sharp objects during this challenge card, posing a risk for cuts. Ensure younger sections are appropriately supervised.

Variations

- Once you’ve mastered one-to-one communication, can you jump on a conference call? See if you can build a string phone line that allows more than 2 people to communicate together.
- What else can you use to build your string phone? Test different types of strings and cups. How do different materials affect the string phone?
- A larger program can be built using other ‘How Do We Hear’ or sound wave challenge cards.
- Explore telephones and how they work. Who invented the telephone? How have telephones changed over history? How do we use telephones today? Why is the telephone an important form of communication?