

Wind Cave

Teaching Tip

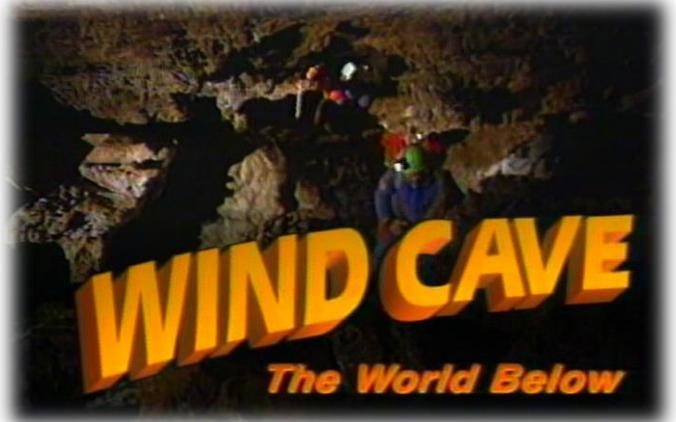
The Senses: Smell, Touch, Hearing and More!

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During this activity your students will participate in a hands-on activity in which they will explore their senses, including touch, smell, hearing, sight and taste. Your students will also learn about Wind Cave in the Black Hills and its formation.

Process:

- This activity could introduce a unit on the senses or provide an entertaining and educational capstone activity.
- Introduce the senses activity by viewing the following video clips about Wind Cave.
 - Wind Cave: Formation ([DLL/ SDPB](#))
 - Wind Cave: History ([DLL/ SDPB](#))
 - Exploring Wind Cave ([DLL/ SDPB](#))
 - Water in Wind Cave ([DLL/ SDPB](#))
 - [Additional Information](#)
- When viewing the clips above, the students should notice that external light sources were needed to see in the caves.
- Ask the students if they have been in a location in which there was no light. Maybe they have been in a basement with no windows or a cellar or their car broke down on a country road at night with cloud cover. How did it make them feel? Did they notice an increased awareness of other senses like hearing or smell?
- Take the students outside and have them cover their eyes with a dark cloth. Encourage the students to use their sense of hearing to listen for natural and man-made sounds. Is it easier for them



Still from Film

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to hear sounds with their eyes covered? What do they hear? Are they noticing sounds that they normally do not hear?

- Find a location in the school with no light. A basement or interior room with no windows would work well. Shut off the lights and have the students sit quietly. Encourage them to use their sense of hearing to listen for sounds from within the school. Is there an increased awareness of sounds?
- The Activity
 - The goal of the activity is to help the students understand that their senses work together and that they are influenced by prior experiences.
 - Materials (will vary depending if you use this as a demonstration or a lab activity)
 - Containers that are not transparent (Hint: the holiday containers shown were purchased after the holiday season so they were less expensive)
 - Unknowns
 - Macaroni
 - Flower
 - Rice
 - Marshmallows
 - Cheerios
 - Flowers
 - Play-Doh
 - Etc.
 - Procedure



- The procedure below is described as a demonstration. The class could be divided into groups of 2-4 students if you

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would like to complete this as a lab activity or center. Additional materials would be needed.



- Have one student come to the front of the room and sit in a chair.
- Select one of the bowls and shake it. (testing sense of hearing)
- The student should use their prior experiences to make an educated guess of what the item is. Encourage the rest of the students to guess also.
 - The following process (using additional senses) can be used if their guess is incorrect.
 - Have the student shake it. (sense of touch)
 - Have the student close their eyes and have them smell the unknown. (sense smell)
 - Display the original packages that the unknowns came in. This will narrow/focus the choice. (sense of sight – for younger students)

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- Open the containers and have the student feel the contents. (sense of touch)
- Optional – Have the student taste the contents if it is appropriate. Reinforce the fact that eating during a science experiment is normally not accepted. (sense of taste)



It will be very surprising to the students when they can hear the density difference between Cheerios and macaroni...

or the size difference between rice and Cheerios.



Continue to test additional unknowns. This is an educational and entertaining activity that your students will enjoy.