





Learning Scientific Skills Outside the Classroom

Scientific Skills

Identifying and Classifying Specific skill – comparing objects		Concluding Specific skill – communicate what they have found out using simple scientific language	
Country of Origin	Suggested Age Range		Suggested Theme
 Sweden	2 – 3		Sounds
Location outside the classroom		Benefits of using this location	
Woods		There are a variety of different natural materials for the children to collect	
Learning Objectives – Scientific Skills		Learning Objectives – Knowledge	
To compare the sounds made by natural materials in a container To say what they have found out using simple scientific language		To investigate the sound made by different instruments To know that sounds can change in volume, some are loud, some are quiet To make their own instrument using natural materials	
Key Vocabulary			
Scientific skills vocabulary – compare, same, different, communicate, find out Knowledge vocabulary – sound, volume, loud, quiet, natural, material			
Resources / Equipment			
<ul style="list-style-type: none"> • Musical instruments • Containers for collecting materials and containers for making instruments using the materials collected • Sound recorder 			
Teaching Activities			
<p>Explain – They are going to find out about making sounds from musical instruments and then make their own instrument to compare the sounds they can make using materials they can find in the wood.</p> <p>Activity 1 – Children play with the different instruments and investigate how they make a sound. Do they have to blow, hit or pluck the instrument to make a sound? Can they make different sounds using the same instrument?</p> <p>Discuss – How did they use the instruments to make a sound? Could they make different sounds? How?</p> <p>Activity 2 – In small groups, children walk around the wood to collect a range of materials they think they could use to make different sounds. The collected materials are grouped together in trays for all the children to use. Each child chooses one of the materials and tests whether it can be used to make a sound on its own. They then put the material into a container (a jar or a plastic tub) and uses the material in the container as an instrument. Children think about whether the instrument they have made makes a sound and how the sound is made. They can record their sounds using a sound recorder – this allows them to hear their sounds again and helps them to compare the sounds made by different materials.</p> <p>Discuss – Which materials made a sound in the container? Do the materials in the containers all make the same sound or do they make different sounds? Use the recordings to listen to loud and quiet sounds. Which material made the loudest sound in the container? Which material made the quietest sound in the container? Can they use the same material in their container to make a loud sound and a quiet sound?</p>			
			



Explain – The materials make a sound when they move around in the container. When the material hits the side of the container it makes a sound. If it hits the side gently it makes a quiet sound. The harder it hits the side, the louder the sound. We use the word volume to describe how loud a sound is. We have a volume button on the radio and television - if we turn the volume up, the sound gets louder. If we turn the volume down, the sound gets quieter.



Activity – Can they make a loud noise with their voice? Can they make a quiet sound with their voice?

Examples of children's work and teacher comments from country of origin



It was good to have two teachers on this activity. One teacher accompanied the children and investigated the sounds being made and the other teacher stayed in the areas where the materials were gathered. Both teachers asked the children questions and discussed the children's findings. The adults also helped to record the children's different sounds so the children could come back and listen to the sounds.