

Rock Science Concept Planner

Create a map of the playground and describe where there are a lot of rocks. The teacher can write down the children's descriptions on the map. This develops spatial thinking and begins an understanding of maps as an actual representations of places. Expressive language is also developed as the children describe rock locations.

Use the iPad and information books to look at different types of rocks. The children will create a chart to explore different rocks and characteristics of each. This practice the skill of identifying the topic of an informational text that has been read aloud. Children also describe, categorize and compare and contrast information in informational text by charting information.

Create their own rock box for the children's collections. Have children describe and sort the rocks which practices sorting and classifying by one or more attributes (e.g., size, shape). Children can describe and compare objects using measureable attributes (e.g., length, size, capacity and weight). They can also order objects by measureable attribute (e.g., biggest to smallest, etc.) as well as measure length and volume (capacity) using non-standard or standard measurement tools.

Take the children on a rock hunt. Have them collect rocks and use a paper and clipboard to use tally marks to count how many rocks they find. This aids in number sense and counting skills. Children can practice identifying, without counting, small quantities up to 3 items; demonstrating one-to-one correspondence when counting objects up to 10; and understand that the last number spoken tells the number of objects counted.

Cognitive Development

Social/Emotional Development

Explore rocks with magnifying glasses and microscopes. The children can document their observations through drawing and discussion. This is a way to use simple tools to extend their investigation.

Science Topic Young Geologist

Research the methods geologist use to study rocks like scratching, observing color and shine/dullness, weighing and then create a journal of terms in which they document with pictures and/or words.

Language/ Communication

Motor Development

Look at various everyday uses of rocks and identify these uses at school and home. This goes to the development of initiative and curiosity by seeking new and varied experiences. Children should also ask questions to seek explanations.

Create a KWL chart entitled: "What is a geologist?" Write down what the children say and compare it to what they say at the end of the investigation. This allows the children the opportunity to practice taking turns in conversation, staying on topic and sustaining conversation.

*Many of the experiences involve all developmental domains.

List geology terms the children have come across in their study of geology and have them copy the terms in their journals. This uses the writing process and allows children to practice finger grasp, as well as understand the structure of print and letter formation. This also develops the understanding of the letter group/word relationship.