

Earth Sciences

1.0 Properties and Characteristics of Earth Materials and Objects

At around 48 months of age

1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.

Examples

- Observes different rocks collected on a nature walk (using the senses of sight and touch). Sorts out all the smooth rocks.
- Plays with rocks and discovers that she can use a rock to draw on a sidewalk.
- Fills a bucket with soil and comments, "We need water to make it more squishy."
- While playing in the sandbox, pours sand into a bottle and communicates to his friend in his home language, "I can fill up the bottle with sand all the way up."
- While outside, observes a windmill spinning. Responds, "I can feel the wind. The air is pushing it."
- A child who is visually impaired holds different rocks and communicates, "This one feels really smooth but this one is not very smooth."
- Uses magnifying glass to observe sand and communicates, "I can see many tiny pieces."
- Explains that sand and water are needed to make a sandcastle.

At around 60 months of age

1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.

Examples

- Pours water on sand and compares the dry sand with the wet sand (e.g., "The wet sand sticks together"). Demonstrates how to make a cake with wet sand by filling up the bucket and then turning it over.
- Pours water in the sandbox to form craters, lakes, and dams.
- Investigates the surfaces of different rocks and sorts the rocks based on how shiny they are. Communicates, "Here are very shiny rocks, and here are not so shiny rocks."
- In explorations of air, observes a kite flying and communicates, "The wind blows really hard, and the kite goes really high into the clouds."
- Collects soil from the garden and uses a magnifying glass to observe the container of soil closely. Describes and records, with adult assistance, observations: "The soil has tiny rocks inside. The soil has some yellow leaves and some leaves that turned almost black. The soil is a little wet and feels very soft."



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