

NATURE HIKES

GEOGRAPHY

- Demonstrate and use terms related to location, direction and distance (up, down, over, under, front, back, here, there).
- Demonstrate how maps can be useful to finding places (streets, homes, places to visit).
- Navigate within familiar environments, such as home, neighborhood or school, under supervision.
- Recognize and name the immediate surroundings of home (homes, buildings, bridges, hills, woods, lakes) following supervised explorations.

EARTH AND SPACE SCIENCE

- Observe, explore and compare changes that animals and plants contribute to in their surroundings (roads and houses, holes left by worms)
- Explore and compare changes in the environment over time (soil erosion, fossils, outdoor temperature).
- Explore how their actions may cause changes in the environment that are sometimes reversible (hand in flowing water changes the current) and sometimes irreversible (rock dropped that breaks).
- Demonstrate understanding of fast and slow relative to time, motion and phenomena (ice melting, soil eroding, water running quickly down a steep hill compared to running slowly down a gentle hill).
- Observe and use language or drawings to describe changes in the weather (sunny to cloudy day).

LIFE SCIENCES

- Identify common needs (e.g., food, air, water) of familiar living things.
- Observe and begin to recognize ways environments support life by meeting the unique needs of each organism (plant/soil, fish/water).
- Match familiar adult family members, plants and animals with their young (horse/colt, cow/calf).
- Recognize physical differences among the same class of people, plants or animals (dogs come in many sizes and colors).

PHYSICAL SCIENCES

- Explore and compare materials that provide many different sensory experiences (sand, water, wood).
- Demonstrate understanding of motion-related words (up, down, fast, slow, rolling, jumping, backward, forward).
- Explore familiar sources of the range of colors and the quality of light in the environment (prism, rainbow, sun, shadow).

SCIENTIFIC INQUIRY

- Show interest in investigating unfamiliar objects, organisms and phenomena during shared stories, conversations and play (Where does hail come from?).
- Ask questions about objects, organisms and events in their environment during shared stories, conversations, play (ask about how worms eat).
- Investigate natural laws acting upon objects, events and organisms (repeatedly dropping objects to observe the laws of gravity, observing the life cycle of insects).
- Use one or more of the senses to observe and learn about objects, organisms and phenomena for a purpose (to record, classify, compare, talk about).
- Explore objects, organisms and events using simple equipment (magnets and magnifiers, standard and non-standard measuring tools).
- Begin to make comparisons between objects or organisms based on their characteristics (animals with four legs, smooth and rough rocks).

SCIENTIFIC WAYS OF KNOWING

- Offer ideas and explanations (through drawings, emergent writing, conversations, movement) of objects, organisms and phenomena, which may be correct or incorrect.

ACQUISITION OF VOCABULARY

- Demonstrate or orally communicate position and directional words (e.g., inside, outside, in front of, behind).

MEASUREMENT

- Begin to use terms to compare the attributes of objects (e.g., bigger, smaller, lighter, heavier, taller, shorter, more and less).
- Measure length and volume (capacity) using non-standard units of measure (e.g., how many paper clips long is a pencil, how many small containers it takes to fill one big container using sand, rice or beans).

GEOMETRY AND SPATIAL SENSE

- Demonstrate and begin to use the language of the relative position of objects in the environment and play situations (e.g., up, down, over, under, top, bottom, inside, outside, in front, behind, between, next to, right side up and upside down).

DATA ANALYSIS AND PROBABILITY

- Gather, sort and compare objects by similarities and differences in the context of daily activities and play (e.g., leaves, nuts, socks).