Zula Modules

Correlation with NYC 2nd Grade Science Scope and Sequence

Unit 1

Earth Materials: What materials make up the Earth?

Observe and describe the basic properties and components of soil: • Living components • Nonliving components	**Rocks and Soil:** *Dig Deep p. 3, 4 5, 8, 10, 11, 12, 14, (17-19), (21)*
Investigate different types of soil according to: • Color • Texture • Materials • Capacity to Retain Water	**Rocks and Soil:** *Dig Deep p. 5, 10, 11, 12, (17-18)*
Explore how erosion and deposition are the result of interactions between air, wind, water, and land.	**Rocks and Soil:** *Make It Rock p. 8*
Observe and describe the physical properties of rocks (size, shape, color, presence of fossils).	**Rocks and Soil:** *Make It Rock p. 3, 4, 5, 7, 8, 10, 12, 13, 15, (19-* *20)*
Compare and sort rocks by size, color, luster, texture, patterns, hardness/softness.	**Rocks and Soil:** *Make It Rock p. 5, 13*
Make clear that nonliving things can be human-created or naturally occurring.	**Rocks and Soil:** *Make It Rock p. 13*

Unit 2

<u>Forces and Motion</u>: What causes objects to move?

Observe and describe the position of an object relative to another object (over, under, on top of, next to).	**Force:** *Move It! p. 5, 9, 10, 12* *Play Newton's Ping Pong p. 6, 7, 13, 14*
Identify a force as a push or a pull	**Force:** *Move It! p. 3, 4, 5, 7, 9, 10, 12, 13, 14, (17), (20-22)* *Glide on Thin Ice p. 3, 7, 9, 10, 12, 13, (18)* *Play Newton's Ping Pong p. 3, 5, 6, 7, 9, 11, 12, 13, 14, 15, 17, (20), (24)*
Demonstrate how the position or direction of an object can be changed by pushing or pulling (forces and motion): • Change the direction of objects by pushing and pulling using blocks, ramps, cars, and balls. – Inclined plane	**Force:** *Move It! p. 5, 7, 9, 10, 13* *Glide on Thin Ice p. 9, 13, (18)* *Play Newton's Ping Pong p. 7, 11, 12, 13, 14, 15, (24)*
Identify gravity as a force that pulls objects down: • The balance scale • Balance and the center of gravity	**Force:** *Move It! p. 3, 5, 7, 9* *Play Newton's Ping Pong p. 3, 16*
Observe and describe how the force of gravity can affect objects through air, liquids, and solids.	**Force:** *Move It! p. 5, 7, 9* *Play Newton's Ping Pong p. 16*

Unit 3

<u>Plant Diversity</u>: How are plants alike and different?

Identify and compare the physical structures of a variety of plant parts (seeds, leaves, stems, flowers, roots).	**Rocks and Soil:** *Make It Rock p. 11, 12, (21), (23)* *Dig Deep p. 5, 10, 11*
Observe and describe how plants grow and change in predictable ways: • Plants closely resemble their parents and other individuals of their species • Some traits of living things have been inherited (e.g., color of flower)	**Rocks and Soil:** *Make It Rock p. 11, 12, (23)* *Dig Deep p. 10, 11*
Observe plant life cycles and life spans.	**Rocks and Soil:** *Make It Rock p. 11, 12, (23)* *Dig Deep p. 10, 11*
Observe that plants reproduce from: • Seeds, bulbs, and cuttings	**Rocks and Soil:** *Make It Rock p. 11, 12, (23)* *Dig Deep p. 10, 11*
Describe the basic needs of plants: • Light , air, water, soil (nutrients)	**Rocks and Soil:** *Make It Rock p. 11, 12, (23)* *Dig Deep p. 5, 8, 10, 11*
Describe the basic life functions of plants: • Grow • Take in nutrients • Reproduce	**Rocks and Soil:** *Make It Rock p. 11, 12* *Dig Deep p. 5, 10, 11*
Observe that plants respond to changes in their environment (e.g., the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plants to grow, seeds to germinate, and leaves to form and grow).	*Will be addressed in an upcoming module.*