INVESTIGATION 1: Properties of Rocks and Minerals

In Investigation One, you examined two rock samples. During this investigation, you:

1. used a hand lens to observe a white marble rock.
2. used a hand lens to observe a black obsidian rock.
3. compared the color, size, texture and luster of each rock.
4. observed a Rocks and Minerals collection

Through these experiments, you found that:

1. rocks are made from minerals.
2. rocks can appear different from one another.
3. rocks are an important part of the Earth’s surface.

INVESTIGATION 2: Comparing Rocks to Other Solids

In Investigation Two, you continued to explore rocks and compared them to other solid objects. During this investigation, you:

1. compared the weight of the white marble rock to a wood block, an acrylic cylinder, and metal cube.
2. compared the weight of the black obsidian rock to a wood block, acrylic cylinder and metal cube.
3. compared the weight, size, color, texture and luster of the solid objects to each rock.

Through these experiments, you found that:

1. rocks can share similar properties to solid objects.
2. rocks can be heavier or lighter than solid objects.
3. comparing properties of different objects can help you identify and find the purpose of the object.
INVESTIGATION 3: Rocks, Soil and Sand
In Investigation Three, you explored samples of gravel, potting soil, topsoil and sand. During this Investigation, you:

1. used a hand lens to observe the samples.
2. constructed a filter tool.
3. sifted each sample through the filter.

Through these experiments, you found that:

1. gravel has large particles and is not easily sifted.
2. soil has some small and some large particles and can be partly sifted.
3. sand has small particles and passed through the filter model.
4. particle size relates to the use of each type of substance.

INVESTIGATION 4: Rainwater, Rocks and Soil
In Investigation Four, you explored how rainwater passes through the ground. During this Investigation, you:

1. explored the properties between wet and dry gravel.
2. explored the properties between wet and dry soil.
3. explored the properties between wet and dry sand.

Through these experiments, you found that:

1. water infiltrates and percolates through gravel, soil and sand.
2. gravel, soil and sand can absorb different volumes of water.
3. sand absorbed more water than soil.
4. soil absorbed more water than gravel.
INVESTIGATION 5: Percolation and Runoff

In Investigation Five, you explored what happens when it rains. During this Investigation, you:

1. compared the weight of wet and dry rocks.
2. compared the weight of wet and dry soil.
3. examined how much water passed through the samples.

Through these experiments, you found that:

1. the weight of wet and dry rocks did not change.
2. adding water to soil made soil heavier.
3. adding more water than the soil could absorb led to runoff.