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INTRODUCTORY.

MAN is vitally dependent upon air, water, and earth. The air supplies oxygen for breathing and for fire; it supplies carbon dioxide to plants; it brings vapor for rain; and its presence and movements profoundly affect climate.

The ocean is the source of vapor; it furnishes many kinds of food fish; it is the highway of an ever increasing commerce; and it influences the climate of every land.

The lands furnish a home for man; they are mantled with a soil in which the food plants grow; and from the rocks are obtained mineral fuels, building stones, and metals. Both plant and animal life are greatly influenced by the forms of the land and the distribution of land and water.

The sun is also of vital importance, for its heat and light make life on the globe possible. The heat sets the air in motion, forming winds which bring rain, modify climates, and start waves and currents in the ocean.

The movements of the earth — rotation and revolution — are also important. Rotation brings day and night, which influence the habits of men, animals, and plants. Revolution causes seasons, which have a still greater effect on life.

Plants, animals, and mankind have adapted themselves in a wonderful manner to the soil, climate, and other features of their surroundings. Most animals and plants live either in

the water or on the land; but some have adopted the air as their home, while others have taken to life underground, though always near the surface.

Air and water are ever changing; the lands are also changing, though more slowly; and plants, and animals are varying in their relation to air, ocean, and land. These changes have a profound effect on man, and it is therefore important to study about them.

Such a study is known as **Physical Geography**, which may be defined as the study of the physical features of the earth and their influence on man.

NEW PHYSICAL GEOGRAPHY.

CHAPTER I.

THE EARTH AS A PLANET.

1. **Shape of the Earth.** — When we look at the full moon we see clearly that it is a sphere in the heavens (Fig. 2).

If we could stand on the moon and look at the earth, we would see that it, too, is a sphere. But the earth is a much larger sphere than the moon (Fig. 3).

Over two thousand years ago it was known that the earth was a sphere; but this was later forgotten, and for a long time the earth was believed to be flat. Before the time of Columbus, navigators imagined all sorts of terrors at the edge of a flat earth; and Columbus had difficulty in finding sailors who were willing to face these imaginary terrors. Columbus's voyage helped to bring into prominence the old proofs that the earth is a sphere.



FIG. 2.—The moon.

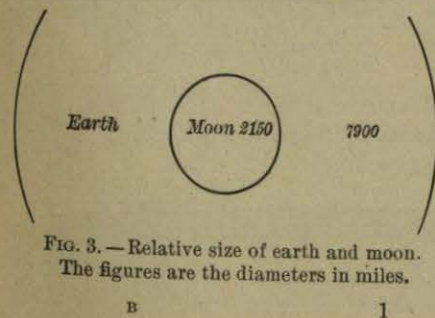


FIG. 3.—Relative size of earth and moon. The figures are the diameters in miles.