Institute of Natural Resources Departament of General Geology and Land use planning

Figure of the Earth

Lecturer: Berchuk V.Y.
Gutareva N.Y.

Plan

- 1. Facts about the Earth;
- 2. Sphere;
- 3. Ellipsoid;
- 4. Geoid.

Facts about the Earth 1

The Earth, with average distance of 92,955,820 miles (149,597,890 km) from the sun, is the third planet and one of the most unique planets in the solar system. It was formed around 4.5-4.6 billion years ago and is the only planet known to sustain life. This is because factors like its atmospheric composition and physical properties such as the presence of water over 70.8% of the planet allow life to thrive.



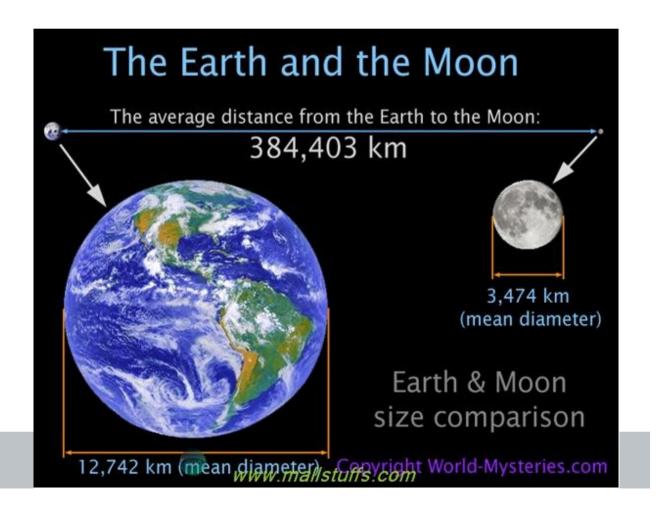
Facts about the Earth 2

As the largest of the terrestrial planets, the Earth has an estimated mass of 5.9736×1024 kg.

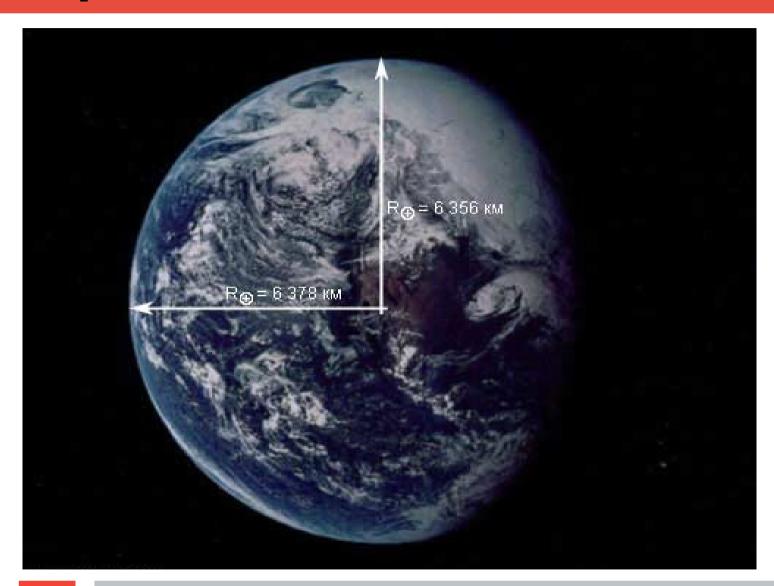


Facts about the Earth 3

Earth's circumference and diameter differ because its shape is classified as an oblate spheroid or ellipsoid, instead of a true sphere. This means that instead of being of equal circumference in all areas, the poles are squished, resulting in a bulge at the equator, and thus a larger circumference and diameter there.



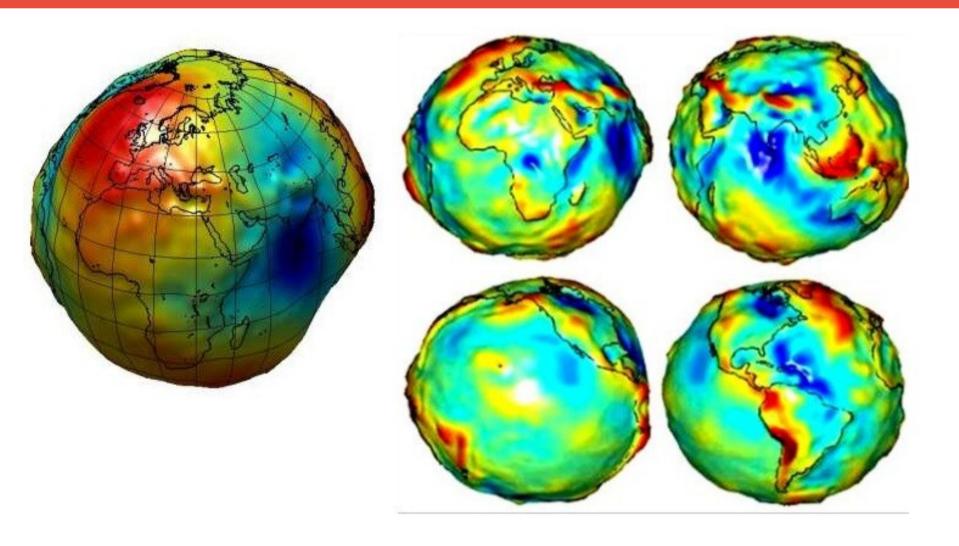
Sphere



Ellipsoid



*Geoid



*The expression figure of the Earth has various meanings in geodesy according to the way it is used and the precision with which the Earth's size and shape is to be defined. While the sphere is a close approximation of the true figure of the Earth and satisfactory for many purposes, geodesists have developed a number of models to represent a closer approximation to the shape of the Earth.

Thank you for attention!