



REAL WORLD GLOBES

Venus, Earth and Mars System Scale

You will be given measuring tapes for Venus, Earth and Mars.

Purpose: Develop an understanding of sizes and distances in our Solar System.

The astronomical unit (AU) is a unit of length, roughly the distance from Earth to the Sun. Therefore Earth is 1AU.

What is that distance from Earth to the Sun in kilometers? _____

What is that distance in miles? _____

Using the measuring tape of the 18" Earth how many tapes would you need to reach the Sun? kilometers scale _____ miles scale _____

Find the actual diameter of Earth. kilometers _____ miles _____

What is the scale for an 18" Earth globe?

Find the AU for Venus. _____

What is that distance from Venus to the Sun in kilometers? _____

What is that distance in miles? _____

Using the measuring tape of the 18" Venus how many tapes would you need to reach the Sun? kilometers scale _____ miles scale _____

Find the actual diameter of Venus. kilometers _____ miles _____

What is the scale for an 18" Venus globe?

Find the AU for Mars. _____

What is that distance from Mars to the Sun in kilometers? _____

What is that distance in miles? _____

Using the measuring tape of the 18" Mars how many tapes would you need to reach the Sun? kilometers scale _____ miles scale _____

Find the actual diameter of Mars. kilometers _____ miles _____

What is the scale for an 18" Mars globe?

<http--www.realworldglobes.com>

California State Standards for Mathematical Reasoning & Algebra

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

Geometry (7th Grade through 12th)

Draw, construct and describe geometrical figures and describe the relationships between them.

Visualize relationships between two-dimensional and three-dimensional objects.

Apply geometric concepts in modeling situations.

National Science Standards

Content Standards 5-8

Earth is the third planet from the sun in a system that includes other planets.

The sun is the central and largest body in the solar system.

Know that many objects in the universe are huge and are separated from one another by vast distances.

Activity created by CHARLES DICHIERA

