Backpack-tivity:
An @Home Learning Activity

Walking Earth's Solar System

Introduction:
As you complete this activity, you will make a scale model of Earth's solar system.

Materials:
You'll need 11 helium balloons tied to weights (or 11 other planet markers, such as large rocks, tall sticks, Frisbees, …). Using a crayon or colored marker, label the planet markers Sun, Mercury, Venus, Earth, Moon, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto. You'll also need an area (a backyard, park or playground, for example) big enough for you to take 100 steps, and a pen or pencil.

Directions:
Place the Sun marker in the middle of your yard or playground. Take 1 step (in any direction) and place the Mercury marker. Take 1 more step and place the Venus marker. Take 1 more step and place the Earth marker. Place the Moon marker right next to Earth. (At this scale, Earth and moon are separated by the width of your little finger.) Take 1 more step and place the Mars marker. Take 9 more steps and place the Jupiter marker. Take 12 more steps and place the Saturn marker. Take 25 more steps and place the Uranus marker. Take 28 more steps and place the Neptune marker. Take 25 more steps and place the Pluto marker. You have created a scale model of Earth's solar system in which each step you took represents about thirty million miles in the solar system.

Talk About It:
About how far is Earth from the sun? Which planet is farthest from Earth? Is Jupiter closer to Mars or Saturn? Make up more questions about distances in Earth's solar system and challenge each other to answer them.

Learn More:
More accurate distances between the sun and the planets are: Mercury = 36 million miles; Venus = 67 million miles; Earth and Moon = 93 million miles; Mars = 142 million miles; Jupiter = 483 million miles; Saturn = 885 million miles; Uranus =1.8 billion miles, Neptune 2.8 billion miles; Pluto = 3.7 billion miles.

This activity was completed by _____ and _____.