

Astronomy: Solar System Spatial Awareness Instructions

It's hard to grasp the size and placement of all the elements in our solar system. Using simple items and integrating some exercise and/or a car ride, this activity can be fun and educational!

Supplies

- paper (one scrap piece and one 12x12 sheet)
- a hole punch
- nickel
- dime

Before Your Walk

Use a hole punch to make a small circle, or trace the punch from a loose leaf binder and cut out (1/4 inch diameter). Find a nickel and a dime. If possible, cut an 11" diameter circle out of paper.

At Home

Set out the nickel and have your kids imagine the Earth is the size of this nickel.

Ask: How big is the the moon if the Earth is the size of the nickel?

How far away do you think the moon would be from the Earth?

Can you draw it on the paper and hold it where you think it would be in relation to "Earth"?

Show Them: The moon would be the size of this hole punch (set hole punch 30" away)!

Ask: How big do you think Mars would be if Earth were this nickel?

How big would Jupiter be?

Show Them: Mars would be the size of this dime! Jupiter would be the size of this 11" paper!

Ask: Do you want to see how far away Mars and Jupiter would be from the "Earth" on our table?

Now, It's Time To Walk...

Mars would be 133 yards away from your house, where the nickel is sitting on your table!

133 yards is 399 feet, or .07 miles. In Lincoln, this is (generally) 3-4 house lots!

NOW do you want to walk to where Jupiter would be? You may not be up for this. If Earth was the size of a Nickel, Jupiter would be about 11" in diameter, and would be 1.27 miles from your house!