TEACHERS TRAIL GUIDES

Trail Guide Windows On Earth: 1.1 Position

Visit the **Exploring Space Gallery** on the 5th Floor

Windows On Earth

Can you spot the United States? Your state? Your town? The Earth is a really big place. What places are "next to" the United States?

Could you go there to visit?

How long would it take you to drive there?

Teacher Notes:
"Next to" and "near" are very relative. In large areas like the Earth, our nearest neighbors are still far away. It might take you 4 hours or more (250 miles) to drive from Hartford to the nearest place in Canada. To visit our southern neighbor, Mexico, you would travel for more than 33 hours and drive more than 2000 miles. For best results make sure the "Borders" are turned on.

Trail Guide Moon Projection Globe: 1.1 Position

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Moon Projection Globe

How far away is the moon?

How long would it take to get to the moon in a plane?

Teacher Notes:
The moon is almost 239,000 miles away from the earth. Using a 747 jet would take people over 17 DAYS to reach the moon.

Trail Guide Overlook Balcony: 1.1 Position

Visit the **River of Life Gallery** on the 6th Floor

Overlook Balcony

Look down at the river. What do you see "near" the river?

Why do you think those things are there?

Do you see any shadows?

Where is the sun that is making the shadow?

What is the object that is blocking the sun to make the shadow?

Find as many shadows as you can. Are they all on the same side of the objects? Why?

Teacher Notes:
Shadows are cast when an object blocks the light from a bright source (in this case the sun). If it is not a sunny day, you will see few shadows. If you spot shadows, they should all be on the opposite side of the object from the sun.

Trail Guide Stream Table: 1.1 Position

Visit the **River of Life Gallery** on the 6th Floor

Stream Table

Look at the sand in the stream table.

How does the water affect the sand?

Which way is the water moving?

What words would you use to describe the position of the water and the sand in the Stream Table?

Put a bridge, plant, or other object in the stream table, what words can you use to describe the position of the object you just placed?

Teachers Notes
Students should also realize that the water is pushing the sand down the table. If the students are ready, you can introduce them to the term erosion, if you feel it is appropriate. You can also use the Stream Table as an opportunity to introduce the concept of gravity to your students.

Trail Guide Large Vortex Tank: 1.1 Position

Visit the Kid Space Gallery on the Plaza Level
Please note that availability to KidSpace is limited and based on capacity and other audience considerations.

Large Vortex Tank

Look at the water in the large tank. What is pushing the water to make it move?

Look at the balls moving in the tank. What is pushing on the balls to make them move?

How do the balls get back to the top of the tank? What is used to push them up that high?

Teacher Notes:
The water is pushed by the four faucets at the bottom of the tank. The faucets can be turned to change the direction the water is pushed. When the faucets are pointing perpendicular to the tank, there is no vortex. When the faucets are parallel to the tank, you get a large vortex.

Trail Guide Air Tubes: 1.1 Position

Visit the Kid Space Gallery on the Plaza Level
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Air Tubes

Place one of the balls in the tube on the right, and press the start button.

Look at the ball as it moves through the tube. What is pushing the ball to make it move?

Teacher Notes:
When the start button is pressed a blast of air will push the balls up the tube and over the children's heads. Teacher should make sure that the students don't take the balls from the vortex tank over to the Air Tube, as they will get stuck.

STUDENTS TRAIL GUIDES

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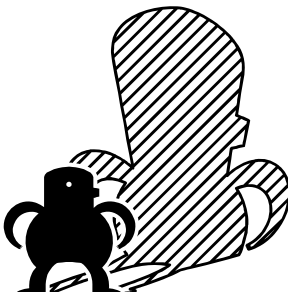

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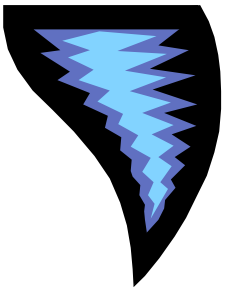

Trail Guide Air Tubes: 1.1 Position

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Air Tubes

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