Name:

Coriolis Effect Activity

Purpose: Students will work in pairs to complete this activity to und4erstand how Earth’s rotation causes the Coriolis Effect.

Materials:

* Manila Folder (Cut into a circle 20 cm in diameter)
* 25cm x 25cm cardboard square
* Push Pin
* Ruler
* Pencil

Procedure:

1. Push the pin through the center of the paper circle.
2. Pin the circle in the center of the cardboard so it can rotate freely.
3. Place the ruler so it crosses the center of the circle.
4. Have one person from your group practice smoothly turning the circle counter-clockwise while holding the ruler in place. (This rotation represents the spinning of the Earth from the point of view of the North Pole looking down or the South Pole looking up).
5. To model the effect of Coriolis in the northern hemisphere while your partner is spinning counter-clockwise the paper, draw a straight line at a constant rate along the ruler from the center of the circle to the edge of the paper.
6. Repeat step 5, this time drawing a straight line from the edge (outside) of the circle ti the center while the circle is being turned counter-clockwise.

You should notice a definite curve to the line.

1. Repeat steps 5-6 by rotating clockwise now to model the effect of the Coriolis in the southern hemisphere.

Questions

1. What happened to the line as you rotated the cardboard?
2. What happens to the line as you move farther away from the edge?
3. What happened to the line when you spun the paper counterclockwise?
4. What happened to the line then you spun the paper clockwise?