

Investigation: Coriolis Effect

Materials Per Group:

- Turn Table
- Tennis Ball

Investigation Questions:

- How does the earth's rotation affect the movement of fluids within earth's systems?
- How can we explain the behavior?

Procedure (what we will do after predicting what will happen):

- With the turntable at a stand still, gently drop the tennis ball into the black tube (repeat if necessary)
- Record your observations
- Lightly spin the turntable, gently drop the tennis ball into the black tube (repeat if necessary)
- Record your observations

Predict - Write down your answers in your individual science notebook:

- When the table is still, what will happen to the tennis ball when it rolls out of the black tube? Explain your reasoning.
- When the table is spinning counterclockwise, what will happen to the tennis ball when it rolls out of the black tube? Explain your reasoning.

Briefly compare and discuss your prediction within your small group.

Investigate: Execute the procedure and observe and record the results.

Individual Reflection- In your science notebook, write down the answers to the following questions/prompts:

- How would you describe what you observed? What was the behavior?
- How does this simulation compare to the rotation of the earth?
- How would you explain what you observed? What caused the behavior?

Small Group Discussion:

- How would you explain what you observed to someone who has not conducted this investigation?