# Foucault Pendulum Post-Activity Survey Answers

1. **Imagine we are engineers interested in showing that the Earth rotates and measuring how fast it rotates. What is a good way to proceed?**

**Use a Foucault pendulum.**

1. **What do you need to build an experimental Foucault pendulum?**

**A pendulum and a moving platform.**

1. **What makes the pendulum oscillate?**

**Gravitational force.**

1. **What effect do you think the Earth’s rotation has on a NASA rocket?**

**It causes the rocket to deviate from its initial trajectory.**

***Teacher explanation*: The Coriolis force causes moving objects on the surface of the (rotating) Earth to be deflected. Also, just after launch, the NASA shuttle rocket must execute a pitch motion in order to adjust the shuttle trajectory.**

1. **Assuming you know that the Earth rotates, what effect do you think it has on an object on its surface moving at high speed?**

**For objects not lying on the Earth’s surface or not moving at high speed, no apparent effect exists because gravity overcomes the Coriolis Effect. But for any object moving at a speed to get rid of gravity, the Earth’s rotation might affect its trajectory and speed. This is one of the challenges engineers face when guiding rockets to desired trajectories.**