**Foucault Pendulum Lab**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mod:\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_**

**GOTO:** <https://interestingengineering.com/the-device-that-lets-you-see-the-earth-turn-the-foucault-pendulum>

1. **Who Was Leon Focault ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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1. **What did the Focault Pendulum Prove ?\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **What year did this occur ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Now Watch The Video: “How He Proved Earth Rotates**

**Using A Giant Swinging Ball” : 5minutes 43 seconds**

**You may need to pause or watch again to answer questions below:**

1. **Why did astronomers thousands of years ago think that the earth spins**

**Or aka “Rotates” ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **What is the “Coriolis Effect” ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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1. **How long does it take the earth to finish 1 rotation ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **A Rotating Earth was the best explanation for what ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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1. **Where did Focault test out the pendulum first ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **Where did he exhibit the pendulum for fellow scientist and the public ?**

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1. **What was the “BED of Sand For” ?:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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1. **Where can you find “Pendula “ today ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **What is the “Bob” of the pendula ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Now read the short section on “How does a Focault pendulum work?**

1. **Why is the “Pivot Point” so special ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **Focault Pendula rotations vary depending on earth’s what ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **At the north and the south pole, the pendula completes a full rotation.**

**How many degrees ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in how many hours ?\_\_\_\_\_\_\_\_\_\_**

1. **How much rotation of the pendula at the equator ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Why or why not ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Now Read the Section “How does a Focault Pendulum Keep Swinging ?”**

1. **What does the electromagnetic drive counteract ?\_\_\_\_\_\_\_\_\_\_\_**

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**Now watch the last video:**

1. **Where is this video taking place ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **How long is the video ?\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **What did they use instead of a sand ring to show rotation ?\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Done.**