

Name \_\_\_\_\_

## Dear Earth Detective

**Instructions:** Read each letter and respond with a short-answer explanation that includes correct scientific reasoning. Use full sentences, and include keywords like **rotation**, **revolution**, **axis**, **tilt**, **orbit**, and **Sun** when possible.



### Letters from Around the World

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#### 1. Dear Earth Detective,

My name is Lily, and I live in Canada. Why is it freezing in January here but my cousin in Australia is going to the beach?

– **Confused by Cold and Sun**

Your Reply: \_\_\_\_\_

\_\_\_\_\_

#### 2. Dear Earth Detective,

I don't get it. One moment it's bright outside, and a few hours later, it's pitch black. Why does that happen?

– **Loves the Light, Hates the Night**

Your Reply: \_\_\_\_\_

\_\_\_\_\_

#### 3. Dear Earth Detective,

My teacher said something about Earth being tilted. What does that even mean, and what does it do?

– **Tilting Toward the Truth**

Your Reply: \_\_\_\_\_

\_\_\_\_\_

#### 4. Dear Earth Detective,

If Earth spins all the time, why don't we feel it?

– **Dizzy in Denmark**

Your Reply: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_