Horizon and Curvature Claims

Horizon and curvature arguments are popular because they feel intuitive: the world looks flat from ordinary human height. The problem is scale. Earth is large enough that curvature is subtle locally but measurable over distance.

Core Claim

“I can see too far, therefore Earth is flat.”

What Has to Be Known

- Observer height above the water or ground
- Target height
- Distance to the target
- Atmospheric refraction conditions
- Camera zoom, lens distortion and whether the bottom of the target is visible

The Bottom-First Test

On a globe, distant objects should become hidden from the bottom up as they pass beyond the horizon. This is why the lower parts of ships, buildings or mountains can be hidden while the upper parts remain visible.

Why Refraction Matters

Atmospheric refraction can bend light and reveal more or less than simple geometry predicts. That does not remove curvature; it means careful observations must account for air temperature, pressure gradients and viewing conditions.

Useful Rule

A single photo is rarely enough. A strong horizon observation includes measurements, repeatability and a prediction made before the shot.

Observation Recipe: Distant Shoreline or Building

Pick a target with a known height, such as a lighthouse, skyline building, island peak, or bridge tower. Record your observer height above the water, the distance to the target, the date and time, and weather conditions. Take photos from more than one height if possible.

Prediction: on a globe, lowering the camera should hide more of the target from the bottom upward. Raising the camera should recover hidden portions. Refraction may shift the exact amount, but it should not make height irrelevant.

Common Mistakes

- **Zoom confusion:** zoom can enlarge what is already visible; it cannot restore parts hidden below the geometric horizon.
- **Missing target height:** “I can see it” is incomplete unless you know how tall it is and which parts are visible.
- **Ignoring refraction:** unusual air layers can bend light. Repeat observations beat one dramatic image.

Claim Lab Question

If the Earth is flat, what should happen to the bottom of a distant object as the observer lowers the camera? If the Earth is spherical, what should happen? The value of the test is that those answers are different.

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