The Indoor Shadow-Clock

KIDS HANDS-ON + PREDICT | RUN AT 11:30 | 30 MIN

The point

The lamp never moves — but turn the platform and the pencil's shadow sweeps, stretches, and shrinks like a whole day passing. **Rotation makes the moving shadow**, on demand, indoors, in any weather.

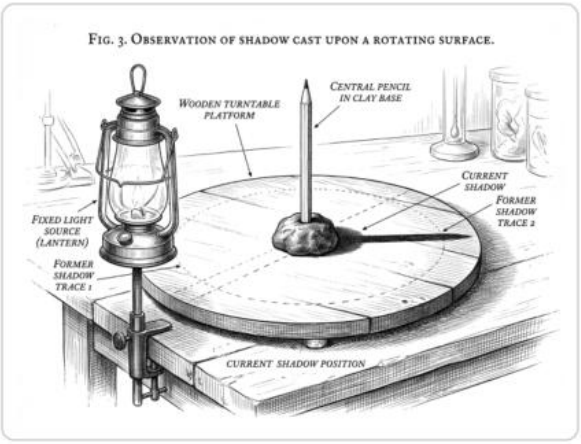
Materials

- Lazy Susan (or a stool to rotate)
- A pencil upright in a lump of clay
- The owned lamp, fixed to one side
- Chalk or tape for marks · the worksheet record boxes

Steps

1. Set the pencil at the platform's centre; fix the lamp low to one side. Lights otherwise dim.
2. Look first: where does the shadow point? Mark it.
3. **PREDICT:** if we turn the platform a little, where will the shadow swing?
4. Turn a small step. Mark the new shadow. Compare to the prediction.
5. Keep turning step by step: the shadow sweeps around, stretching long when the pencil faces the lamp edge-on (its sunrise and sunset) and shrinking short at its "noon."
6. Draw the record in the worksheet's three boxes. Then the closing question: the lamp never moved — so who moved the shadow?

> *Say: "All day long, real shadows sweep and stretch exactly like this — and the sun no more moves than our lamp did. The turning ground is the whole story, and you just held the world in your hands and turned it."*



TEACHER PREP

Assemble and test in prep: lamp LOW and close so shadows run long and readable; dim the room.

What to watch for

- Small turns beat big ones — the sweep should feel continuous
- The long-short-long stretch is the sunrise/noon/sunset shape; name it

EXPECTED RESULT

The shadow sweeps and changes length with every turn while the lamp sits still. The worksheet record fills, and the day's cause has been operated by hand.