A space map with honest scale labels

Which comparisons can one small Solar System drawing show accurately?

My scale

Write how much paper distance represents 1 AU.

My conversions

Calculate or copy Earth 2 cm, Mars 3 cm and Jupiter 10.4 cm.

My labelled line

Start all distances from the same Sun reference.

What the model omits

Name a size, direction or timing detail it does not show.

Keep it, change it or leave it here. Sharing is optional.

Read a Moon phase model

What can a labelled paper model explain about the Moon's changing appearance?

Where the light comes from

Draw or describe sunlight travelling from left to right.

Two illuminated halves

Keep each Moon’s Sun-facing half lit.

The view from Earth

Compare what the observer can see at A and B.

A correction or limit

Explain why ‘Earth’s shadow makes every phase’ does not fit this model.

Keep it, change it or leave it here. Sharing is optional.

Find a pattern in an invented star signal

What might a repeated dip suggest, and what would still need checking?

My data or graph

Keep the eleven times and readings together.

What repeats

Identify low readings and calculate the gaps.

A prediction

State the ‘if’ condition and mark the unobserved next time.

A next check

What extra evidence would help investigate a real signal?

Keep it, change it or leave it here. Sharing is optional.