

Earth - Sun - Moon System Info Cards

Procedure:

1. Look at your card. Do not show it to your partner.
 - You each have different information needed to solve the problem.
2. Work together on Part (a).
 - Talk about what steps you will take.
 - Think about what information you already have and what you still need.
3. Ask for information.
 - When you need something, ask your partner a clear question. Justify why you need that information.
 - Example: “Do you have the Earth’s diameter? We need this info so we can figure out how big to draw Earth compared to the Moon.”
4. Share and record. Repeat and continue working.
 - If your partner has the information, they share it.
 - Keep moving through the problem, step by step. Be sure both partners understand the reasoning before going on.

I need to know...
Can you tell me...

What specific information
do we need?

I need that information
because...
If I know that then...

Why do we need to know
that info?
How will we use this info?

Ok, here is the information...
I don't have that information.

What other specific
information do you need?

Info Cards - Version 1

This set of cards includes distances and diameters that are relatively precise, requiring additional estimation, rounding, and approximation for students to consider (compared to Version 2).

Partner A Info Card (v1)

- Diameter of the Earth: 7,926 miles
- Approximate diameter of the Moon: 2,159 miles
- Diameter of the Sun: 865,370 miles

Partner B Info Card (v1)

- Distance between Earth and Sun: 93,753,000 miles
- Distance between Earth and Moon: 238,900 miles

Partner A Info Card (v1)

- Diameter of the Earth: 7,926 miles
- Approximate diameter of the Moon: 2,159 miles
- Diameter of the Sun: 865,370 miles

Partner B Info Card (v1)

- Distance between Earth and Sun: 93,753,000 miles
- Distance between Earth and Moon: 238,900 miles

Info Cards - Version 2

This set of cards includes approximate distances and diameters that are rounded to a greater degree and are less precise but easier for students to consider.

Partner A Info Card (v2)

- Approximate diameter of the Earth: 8,000 miles
- Approximate diameter of the Moon: 2,000 miles
- Approximate diameter of the Sun: 870,000 miles

Partner B Info Card (v2)

- Approximate distance between Earth and Sun: 93 million miles
- Approximate distance between Earth and Moon: 240,000 miles

Partner A Info Card (v2)

- Approximate diameter of the Earth: 8,000 miles
- Approximate diameter of the Moon: 2,000 miles
- Approximate diameter of the Sun: 870,000 miles

Partner B Info Card (v2)

- Approximate distance between Earth and Sun: 93 million miles
- Approximate distance between Earth and Moon: 240,000 miles