Annotated student work sample 4

Transcript

Thank you for putting this detail into the Venn diagram here. And you chose a really interesting way to present the information that you knew. I would like to know, essentially, what you know about the relationship between the sun, earth and moon, if you could show me anything there.

They're both normally 12 hours, so I put them in the middle.

What's normally 12 hours, darling?

Day and night. They're both usually 12 hours.

Oh, OK.

But in summer, the day becomes longer because the sun is up for longer. And at night, it's longer in winter because the moon stays up for longer.

OK. So how does that work?

I think the gravitational pull of earth moves the moon, and earth rotating around the sun changes where the moon would be.

OK, so you just said something really important. You told me that the earth rotates around the sun. So, are you saying it goes around the sun?

Yep.

And where does the moon go?

Around the earth.

Oh, OK. Do you know anything about the time it takes for that to happen?

One year for the sun to go… for the earth to go around the sun. And I don't know how long it takes the moon to go around earth.

OK. Um...Can you tell me anything about the sun? Does it move, or…?

It stays still, and its gravitational pull pulls all the other planets in the solar system around it.

OK. Tell me about the shapes of all those planets and the sun.

They're all spheres.

Are they? And anything about the size of them?

Um, the sizes differ. The biggest one is Mars, I think.

The planets?

Yeah, the biggest planet is Mars.

Mm-hm.

The sun isn't actually the biggest star - it just appears that way because it's the closest. It's not actually the biggest star.

Uh-huh.

Um...

I think that's it.

OK. And what about the relative sizes of the moon and earth and…?

Earth is one of the smaller planets compared to the larger ones.

OK.

But, um, they keep getting..it's the biggest…it's the closest one to the sun.....that's bigger. It's the biggest one. Like, there's no bigger in front of it towards the sun.

OK. Yep. Gotcha. Alright. Um, so you told me that it takes a year. Is there anything else that happens that affects time on earth?

I don't think so.

No?

That's OK. That's fine. Um, and is night the same for everyone on earth?

No, 'cause, um…

Oh, you told me already, that there's longer days and shorter days.

And regional change.

OK. So why is that?

Because it's in a different spot. The sun… The sun doesn't move.

Yeah.

So only once… Like, only half of earth can really be facing it at a time.

Oh, OK.

Only part of earth can. It's like you don't see the dark side of the moon, but it's still there.

Uh-huh.

Like, the sun never sees the full earth…earth full on.

At any given time?

At any time.

Mm-hm.

So how does… Like, I understand that the sun…the earth is going around the sun. But how… And that's in a year. But how does the day/night work, then?

Um…At night, because the earth is spinning by itself.

Oh. There's the thing, yeah.

And at night, the part of earth that we're on is facing away from the sun, towards the moon, which would be, like, here.

OK.

Well, no, it's really here, but…Um...

OK, that was the thing that you hadn't told me, that I wasn't sure.

OK.

Yeah, that's excellent. Thank you. You shared all the other information with me that I was after, so well done.

Thanks.

Good job. Thank you.