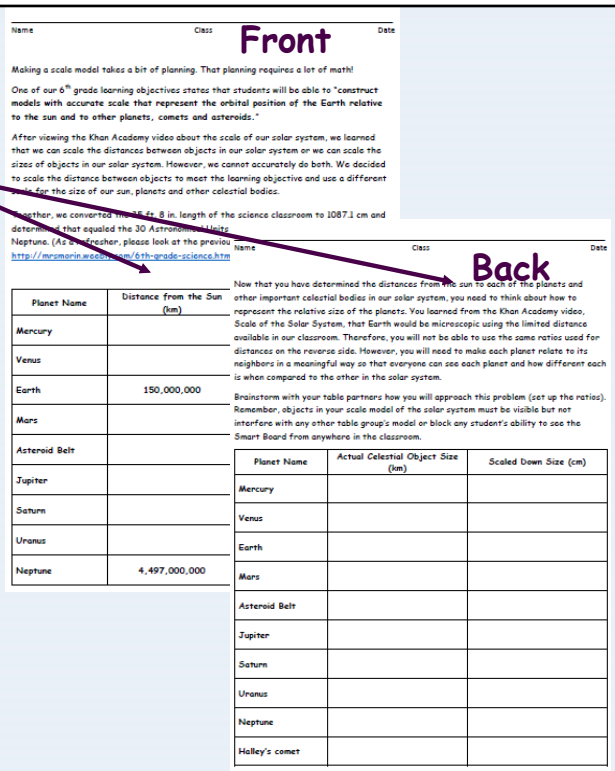
Plan for the day:

1) Turn in completed Scaling the Solar System handout (when I direct you).

2) Start using the NEW text book regularly. Write directly in your text as required.

a) Complete Engage Your Brain (pg 75) at top of page.

b) Read pages 75 - 85 answering ALL questions. ANNOTATE as you read. (READ THE QUESTIONS FIRST!).



Front

Name Class Date

Making a scale model takes a bit of planning. That planning requires a lot of math!

One of our 6th grade learning objectives states that students will be able to "construct models with accurate scale that represent the orbital position of the Earth relative to the sun and to other planets, comets and asteroids."

After viewing the Khan Academy video about the scale of our solar system, we learned that we can scale the distances between objects in our solar system or we can scale the sizes of objects in our solar system. However, we cannot accurately do both. We decided to scale the distance between objects to meet the learning objective and use a different scale for the size of our sun, planets and other celestial bodies.

Together, we converted the 35 ft. 8 in. length of the science classroom to 1087.1 cm and determined that equaled the 30 Astronomical Units to Neptune. (As an Teacher, please look at the previous

http://mrsmorin.weebly.com/6th-grade-science.htm

Planet Name	Distance from the Sun (km)
Mercury	
Venus	
Earth	150,000,000
Mars	
Asteroid Belt	
Jupiter	
Saturn	
Uranus	
Neptune	4,497,000,000

Back

Name Class Date

Now that you have determined the distances from the sun to each of the planets and other important celestial bodies in our solar system, you need to think about how to represent the relative size of the planets. You learned from the Khan Academy video, Scale of the Solar System, that Earth would be microscopic using the limited distance available in our classroom. Therefore, you will not be able to use the same ratios used for distances on the reverse side. However, you will need to make each planet relate to its neighbors in a meaningful way so that everyone can see each planet and how different each is when compared to the other in the solar system.

Brainstorm with your table partners how you will approach this problem (set up the ratios). Remember, objects in your scale model of the solar system must be visible but not interfere with any other table group's model or block any student's ability to see the Smart Board from anywhere in the classroom.

Planet Name	Actual Celestial Object Size (km)	Scaled Down Size (cm)
Mercury		
Venus		
Earth		
Mars		
Asteroid Belt		
Jupiter		
Saturn		
Uranus		
Neptune		
Halley's comet		

Sep 25-6:22 AM

BEFORE we continue, last class, you completed your class' solar system model.

Hopefully, your model will inspire you to want to know more about the part of the galaxy in which you live!

Please place your COMPLETED Scaling the Solar System handout in the BLUE MORIN bin now.

Make sure your

NAME, and FIRST AND LAST

CLASS (12A; 36A; 78A; 12B; 36B; or 78B)

is clearly written at the top of your handout.

Oct 3-7:01 AM

Disciplinary Core Ideas:

These are the concepts we will work on for the next several class meetings:

ESS1.A: The Universe and Its Stars

- *Earth and its solar system are part of the Milky Way galaxy, which is one of many galaxies in the universe.*

ESS1.B: Earth and the Solar System

- *The solar system consists of the sun and a collection of objects, including planets, their moons, and asteroids that are held in orbit around the sun by its gravitational pull on them.*
- *The solar system appears to have formed from a disk of dust and gas, drawn together by gravity.*

Sep 25-6:22 AM

Now, get your Space Science workbook. You will be expected to have this workbook with you every class from now on. pg. 74-85

Remember, you may write DIRECTLY into this text; it is yours!

Complete ALL questions and/or activities as directed.

You may use the blank "graph paper" pages to take notes.

Oct 3-7:01 AM

You may work with a partner AT YOUR TABLE to complete the written components.

However, you MUST DO THE READING ON YOUR OWN!

We will go over this reading NEXT class meeting.

I will check for COMPLETENESS and assign points as follows:

Complete: 10 points

Incomplete: 7.5 points

Not started: 0 points

UPDATED:

EACH class will have the first period of our next class meeting to finish this task

Oct 3-7:01 AM

Stay focused.

Work hard.

Be respectful.

Sep 14-7:04 AM

How to access your Space Science workbook from home will be shared NEXT class meeting.

Stay tuned!

Sep 14-7:04 AM

Attachments

- Scale of Earth and Sun.mp4
- Scale of Solar System.mp4