

Warm Up 1: Seasons  
11-13-18

Have research paper out

LT I can explain what causes the seasons

Q1. How do you get full credit on Notes/Vocab?

Q2. What do you do if you are missing a test or quiz?

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Q1. How do you get full credit on Notes/Vocab?

Ⓐ1. Notes: notes 1 pt  
2 questions, 2pts  
Summary, 2 pts  
Vocab: definition 1pt  
example 1 pt

Q2. What do you do if you are missing a test or quiz?

Ⓐ2. Schedule at day and time to come make it up.

## Expectations

### Beginning of Class

- Be on time
- Have assignment out on desk
- Have paper out to start Warm Up  
Label Warm Up correctly
- Work on the Warm Up, once complete, then talk freely

### Assignments

- Not graded on accuracy but completion and honest effort.

## Expectations

### New Activities

- Please restrain from complaining when I ask you to do something new. If it isn't making sense, please calmly tell me, NO whining!

### Classroom

- Don't write on the desks
- Please pick up trash and papers

### Make-Up Work

- It is your responsibility to go online and get missing work
- If you miss a quiz or test, it is your responsibility to come in on your own time and make the work up

5 Minutes to Review 5 words in Space  
Research

Then share out with each other.

## Video on Seasons

Pay attention, you will have vocab words that are talked about in the video.

<https://www.youtube.com/watch?v=01QWC-rZcfE>

3:30 - 8:45

We are going to do something just a little different with our vocabulary words today.

I am going to ask you to categorize the words into groups

There is no certain number of groups, but there must be at least two words in each group.

You must also justify why the words are in the same group.

Example:

Winter and Summer Solstice

They are grouped because they deal with the longest and shortest amount of daylight hours.

## Vocab 1-12

1. Apogee: the point in the orbit of the moon or a satellite at which it is furthest from the earth
2. Autumnal Equinox: the time at which the sun crosses the plane of the equator, making day and night of equal length.
3. Ecliptic: As Earth orbits the sun, the sun appears to drift across the background stars. The ecliptic marks out the path of this motion on the sky.
4. Lunar Eclipse: the moon appears darkened as it passes into the earth's shadow.
5. Perigee: point in the orbit of the earth at which it is nearest to the Sun.
6. Solar Eclipse: the sun is obscured by the moon.



7. Summer Solstice: solstice that marks the onset of summer, at the time of the longest day.

8. Synchronous Rotation: The rotation of an orbiting body on its axis in the same amount of time as it takes to complete a full orbit/Revolution.

9. Vernal Equinox: time when the sun crosses the plane of the earth's equator, making night and day of approximately equal length all over the earth

10. Winter Solstice: solstice that marks the onset of winter, at the time of the shortest day.

11. Rotation: where the Earth spins on its own axis.

12. Revolution: is where the Earth travels, or orbits around the Sun

## Revolutions Vs. Rotation

Partner up

Get a white board and sketch what you believe to be the difference between:

1. a revolution
2. a rotation

2 minutes

The Majority of us knew that the seasons are caused by the tilt of the Earth's axis at 23.4 degrees, but why would this be the case?

2 minutes to brainstorm, diagrams would be great.

<http://www.youtube.com/watch?v=n3rkUjrdo3A&feature=related>

What is the Earth-Sun Plane? How does this determine the 23.5 degrees?

Projector demonstration.

Seasons caused by the tilt and revolution or rotation of Earth. \_\_\_\_\_

1. The tilt of the Earth's axis causes the hemisphere pointing toward the Sun to:
  - a. be hit by the Sun's rays more directly
  - b. be in the Sun's rays for more hours
  
2. The Earth's revolution causes the hemisphere to alternate pointing toward and away from the sun as the year proceeds.

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Q2. What do you do if you are missing a test or quiz?

Q3. What causes the different seasons?

Q4. How does the summer and winter solstice help explain the changing of the seasons?

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Q3. What causes the different seasons?

A3. The earth is tilted at 23.4 degrees. This makes the Sun's rays to hit the Earth at different intensities and duration depending on what hemisphere is pointed towards the Sun.

Q2. How does the summer and winter solstice help explain the changing of the seasons?

A4. When the Northern hemisphere is tilted toward the Sun, it (Northern Hemi) gets more direct radiation and is in the rays for longer hours.