

Seasons Mini-CRCD

Collect/Relate

Learners research the factual building blocks of the project AND communicate what has been learned.

- _____ A. [Seasons Vodcast](#)
- _____ B. [“Summer and Winter” Gizmo](#) - PP
- _____ C. [What Causes the Seasons? Lab](#) - PP
- _____ D. [A Trip Around the Sun lab](#) - PP
- _____ E. [Seasons Review](#)
- _____ F. [“Seasons” Quizlets](#)
- _____ G. [Seasons Standard Check](#) Percent Score _____

Create

Learners tangibly demonstrate their understanding.

- _____ Cr-1. [What Would Happen?](#)

Donate

Learners find a forum to share their work with others.

- _____ D-1. [Seasons Group Response](#)
- _____ D-2. [Portfolio Entry](#)

A. [Seasons Vodcast](#)

Science Holiday	Date	What happens?
Summer Solstice		
Winter Solstice		
Vernal Equinox		
Autumnal Equinox		

Explain (in your own words) why it is colder here than it is at the equator:

Why do we have a change of seasons?

B. “Summer and Winter” [Gizmo](#)

Get together with a partner and collaboratively work through this gizmo on the paper packet. The angle of sunlight is a key to our seasons.

C. What Causes the Seasons? Lab

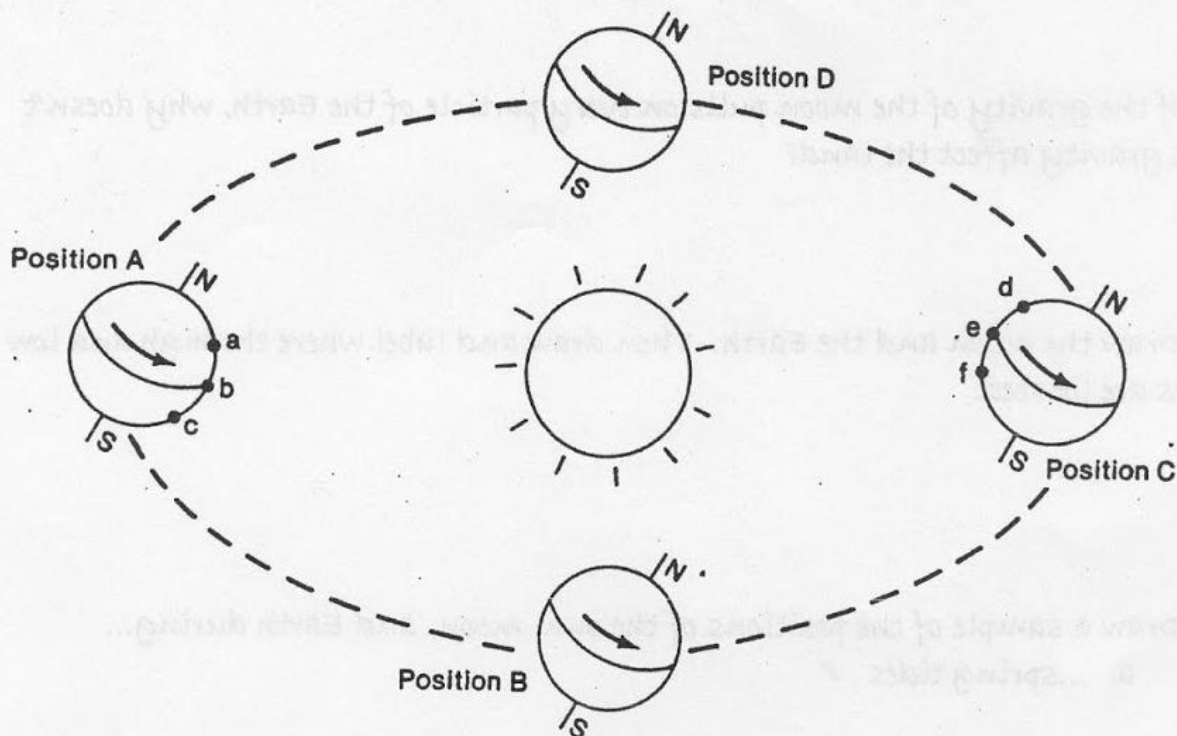
Find a partner. Find an instruction sheet. Read the instructions. Record the data (on your paper packet). Answer the questions. Learn science. Understand seasons. Easy as A, B, C!

D. A Trip Around the Sun lab

The resources will be distributed to you on the day that the class does this lab.
The write-up for it will be on the paper packet.

E. Seasons Review

Refer to the illustration as you answer the following questions.



Position A

1. On about what date would the Earth be at this position? ____
2. What season is it in the Northern Hemisphere? ____
3. What season is it in the Southern Hemisphere? ____
4. Would city a, b, or c have the longest day? ____ Shortest day? ____

Position B

1. On about what date would the Earth be at this position? ____
2. What season is it in the Northern Hemisphere? ____
3. What season is it in the Southern Hemisphere? ____

Position C

1. On about what date would the Earth be at this position? ____
2. What season is it in the Northern Hemisphere? ____
3. What season is it in the Southern Hemisphere? ____
4. Would city d, e, or f have the longest day? ____ Shortest day? ____

Position D

1. On about what date would the Earth be at this position? ____
2. What season is it in the Northern Hemisphere? ____
3. What season is it in the Southern Hemisphere? ____

That's it. You're done with this activity, except for the part where you check your answers to make sure they're right. Check out the key and then bring it back.

F. "Seasons" [Quizlets](#)

Statistics:

of flashcards known: _____ # of flashcards unknown: _____

G. Seasons [Standard Check](#)

What was your score on this standard check? _____

Which questions did you answer incorrectly? _____

Will you be retaking this standard check? _____

How did/can you master the concepts in this standard check?

Create

Learners tangibly demonstrate their understanding.

Cr-1. Would would happen? (answer these ?s in the space provided)

-Would we experience a change of seasons if Earth's axis was not tilted? (It's normally tilted 23.5° away from perpendicular to the orbital path around the sun.) Include at least two factors that cause winter temperatures to be colder than summer temps, and why this seasonal change in temperature would or would not be felt if Earth's axis was not tilted.

-What would happen to our seasons and temperatures if Earth was twice as far from the Sun? What if the Earth was twice as close?

-What would happen to temperatures and seasons if Earth rotated faster or slower? Would our daily highs and lows change?

-Would we experience seasons on Earth if we had a 23.5° tilted axis but did not revolve around the sun? What would happen?

2. Would you like any of these changes?

Donate

Learners find a forum to share their work with others.

D-1. Seasons Group Response

Share your answers to the “create” situations with your group. Be ready to listen, defend, question, support with evidence, and be *a boss*. Collaborate on a Google Doc and see if, as a group, you can agree on one unified response to each of these hypothetical situations.

We will share our responses with the other groups later. See if you can find any holes or flaws in their answers.

D-2. Portfolio Entry

For your portfolio entry, you could post your group’s answers to those seasons questions. Describe how you came to your conclusions. Write about anything you’d like to during this mini-CRCD.