**Science 9: Understanding the Earth System Activity** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Earth- I can **c**ommunicate an understanding of interactions between Earth’s spheres and the interconnectedness of everything within the Earth System.

**Total: /28 Marks Emg Dev Prf Ext**

 **<15.5 15.5 -20.5 21-24.5 25-28**

*Watch the following Prezi in Chrome. Use the arrow keys on computer to move through the slides.*

<https://prezi.com/h3zdz920040c/chapter-7-lesson-1-interactions-among-earths-spheres/>

*Respond to the following questions as you read through the Prezi Presentation –****Interaction’s Among Earth’s Spheres By Autumn Chadwick***

1. What is the objective of this activity? **/1**
2. What does “Earth as a System Mean”? **/1**
3. Describe each of Earth's spheres. List a few examples of features in each sphere. **/5**

Geosphere

Hydrosphere

* Cryosphere (part of hydrosphere)

Biosphere

Atmosphere

1. After looking at the slide with the house and mountains in the background, list several examples of features found in each of the four main spheres above. **/4**
2. Do you think clouds should be classified as part of the atmosphere, part of the hydrosphere or both? Explain why. **/1**
3. Define the term sphere interactions and give your own example of a sphere interaction. **/2**
4. After looking at the picture with the tornado. Describe at least 2 sphere interactions.  **/2**
5. Look at the slide with the farmer on the tractor. Read and think about Sphere interactions on Earth. **/4**
6. Human’s (part of biosphere) impact the Earth System. What are 2 ways that humans change or impact the atmosphere, hydrosphere and/or geosphere?
7. What are some Earth Sphere Interactions that result from your daily activities?
8. Using both images, look for evidence of materials and energy moving between the spheres.

 *Volcanic Eruption near Tonga, Jan. 15, 2022*



1. **List the major features in these
two graphics and tell which sphere each one represents. /4**

 **Feature Sphere**

Utube Video Link: <https://www.youtube.com/watch?v=KAYu3iYIU1c> 

https://cosmosmagazine.com/earth/impact-2022-tonga-eruption/

1. **Describe sphere interactions that occurred in all four spheres of the Earth System following this volcanic eruption. /4**

**W.C. Bennett Dam Impact:**

Video Link: <http://acip.sd79.bc.ca/video/quicktime/socials/fort_ware/fort_ware.mp4>

1. How did the flooding caused by the Bennett Dam hydro electric facility impact the indigenous communities living in the vicinity of the Dam?
2. How has the creation of this dam affected the biosphere and geosphere?

**Earth – I can understand how indigenous people lived in harmony with the environment and are being impacted by global resource use**  **Emg Dev Prf Ext**

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| James McVey, NOAA | https://www.classzone.com/books/earth_science/terc/images/spacer.gif | John McColgan, BLM |
| A. Tropical Island, Palau Islands | https://www.classzone.com/books/earth_science/terc/images/spacer.gif | B.Forest fire, Montana, U.S.A. |
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| NASA | https://www.classzone.com/books/earth_science/terc/images/spacer.gif | NASA |
| C. Oil wells burning, Kuwait and the Persian Gulf | https://www.classzone.com/books/earth_science/terc/images/spacer.gif | D. Suez Canal-Man-made waterway betweenMediterranean Sea and Gulf of Suez , in Egypt |
| https://www.classzone.com/books/earth_science/terc/images/spacer.gif |
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| EPOD/USRA | https://www.classzone.com/books/earth_science/terc/images/spacer.gif | Earth Observatory, NASA GSFC |
| E. Wind farm, Norfolk County, England | https://www.classzone.com/books/earth_science/terc/images/spacer.gif | F. Mount Etna, a volcano on an Island in Italy  |