

Name _____

NOVA: Earth from Space Worksheet

As you watch the program "Earth From Space" use the transcript provided to help you answer these questions. Words that appear in bold face type in the transcript are vocabulary words. Please take the time to look up their meanings if you don't already know them.

1. Earth is often referred to as the "blue marble" by earth scientists. What are the three dominant colors of Earth as seen from space and what causes them? If you were to choose a fourth color that is visible - what would it be and what would cause it?
2. The 120 satellites orbiting mentioned in this program, the ones that are watching our Earth, are positioned at altitudes ranging from _____ to _____ miles above the Earth's surface.
3. List the major regions of the electromagnetic spectrum in order of increasing energy.
4. What are two reasons given to explain why the poles are colder on average than the rest of the planet?
5. List the spheres of the Earth and state the domain of each sphere. The first one is done as an example:
 - a. biosphere - life.
6. What is density? How is the density of air affected by its temperature?
7. What is a feedback loop? How is a positive feedback loop different from a negative feedback loop?

8. What is a geostationary orbit?

9. A major theme of this program is the interconnectedness of Earth. Choose one example of how this is demonstrated and summarize it here:

10. What is Antarctica so much colder on average than the Arctic?

11. The dense water in Antarctica forms the basis of global _____. Why is this critical to life of the whole planet?

12. Volcanoes are typically presented as natural disasters. How are they beneficial to life on Earth?

13. "MODIS is the crown jewel of the Aqua satellite." Explain this statement.

14. What is diatomite and what element, essential to life, does it provide?

15. The great plains of North America are rich in minerals from where?

16. Where does the oxygen we breathe come from?

17. What nutrient does lightning produce?

18. The way wild fires are reported in the news they are characterized as tragic disasters but they also have benefits. Explain.

19. What is a solar mass ejection and what would it do to our planet if Earth did not have a magnetic field?

20. List a few ways that humans have made major changes on the Earth.

21. Pick something discussed in this program and NOT mentioned in these questions that was interesting to you and summarize it here.