

Earth Science Strand 1

Test Review

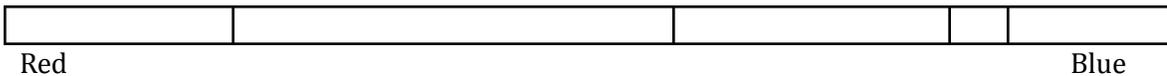
Name _____ Period _____

1. DRAW AND LABEL the Electromagnetic Spectrum in order from LONGEST wavelength to SHORTEST.

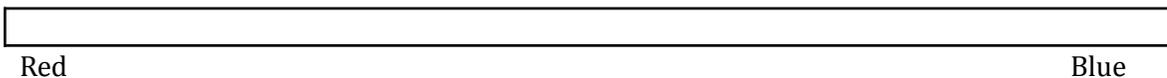
2. Does RED visible light or BLUE visible have a longer wavelength? Why?

3. In your own words, explain RedShift AND BlueShift.

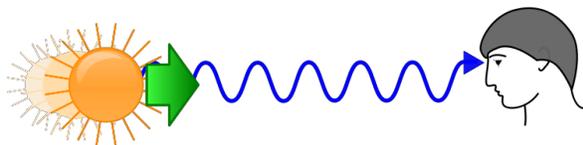
4. Here is a simplified spectrum of hydrogen on Earth.



Draw where the lines might be on this hydrogen spectrum if it has been Red Shifted.

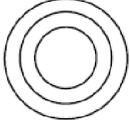


5: Label each of these pictures as red shift or blue shift.



15. Complete the following:

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Bohr Diagram	
	
Lewis Structure	N

<div style="border: 1px solid black; padding: 5px; width: 100px; height: 100px; display: flex; flex-direction: column; align-items: center; justify-content: center;"><div style="border-bottom: 1px solid black; width: 80%; text-align: center; margin-bottom: 5px;">Al</div><div style="border-bottom: 1px solid black; width: 80%; margin-bottom: 5px;"></div><div style="border-bottom: 1px solid black; width: 80%;"></div></div>	P = ____ N = ____ E = ____
Bohr Diagram	
	
Lewis Structure	Al

<div style="border: 1px solid black; padding: 5px; width: 100px; height: 100px; display: flex; flex-direction: column; align-items: center; justify-content: center;"><div style="border-bottom: 1px solid black; width: 80%; text-align: center; margin-bottom: 5px;">F</div><div style="border-bottom: 1px solid black; width: 80%; margin-bottom: 5px;"></div><div style="border-bottom: 1px solid black; width: 80%;"></div></div>	P = ____ N = ____ E = ____
Bohr Diagram	
	
Lewis Structure	F

16. How are the elements formed in the big bang different than the elements formed through nuclear fusion in stars?

17. What is nuclear fusion?

18. What is released during the process of nuclear fusion? What is produced?

19. Why do scientists claim that we are made of stardust?

20. What is a nebula?

21. What force is responsible for the "clumping" in the nebula that forms a protostar?

22. Where do the heaviest elements on earth come from?

23. What is a supernova?

24. What type of elements would you expect to find in a young, small star? List 3 examples of elements:

25. What type of elements would you expect to find in an older, massive star? List 3 examples of elements:

26. Which has more mass (or is heavier)? Na (Sodium) or C (Carbon)?

27. What are the two forces responsible for keeping planets in orbit around their star?

1 H	2 He	3 Li	4 Be	5 B	6 C	7 N	8 O	9 F	10 Ne
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Use the table two answer the next two questions:

28. What will the fusion of two Li (Lithium) atoms produce?

29. What will the fusion of one C (Carbon) and one H (Hydrogen) produce?

30. **T or F:** A star farthest from the Earth will be traveling with the greatest speed, therefore having the greatest red shift. **Explain your answer.**

31. What is solar wind and how did it affect the materials our planets are formed from?

32. Put all of the theories we've learned together into one drawing. Draw and label the steps of **the Big Bang**, leading to the formation of a Solar System from **the Nebular Theory**, and include **the life cycle of our sun**.