**The Universe -Secrets of the Sun**

As you watch the each of the videos, answer the following questions:

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| **The Universe - Secrets of the Sun** | |
| Questions | Notes |
| What information have scientists been able to learn about the Sun, and what does this tell us about other stars in the universe? | 1. 1:10 What 2 elements make up most of the Sun’s mass? 2. 1:25 What type of star is the Sun? 3. 3:30 If the Sun were made of wood and burned, how long would it take to burn out? 4. 4:25 What is the process by which the Sun produces energy in the forms of heat and light? 5. 7:45 What are the particles called that bring heat and light from the center of the Sun to Earth? 6. 9:25 How long does it take light that leaves the Sun to reach Earth? 7. 13:00 What drives all outbursts of explosions on the Sun? 8. 14:00 What evidence do scientists see on the Sun that proves the existence of many magnetic field lines? 9. 18:25 What results when high energy flares shoot enough material back towards the Sun’s surface? 10. 20:15 What are CMEs? 11. 23:15 What happened to Mars’ Atmosphere? 12. 27:30 What is the trigger for most solar magnetic storms? 13. 29:15 What evidence do we see in the sky when the solar magnetic storms break through our magnetic shield? 14. 31:18 How long did it take for the fastest coronal mass ejection ever recorded (in 1859) to get to Earth? 15. 32:30 What technology did it affect? 16. 34:00 How long is the Sun’s sunspot cycle? 17. 35:00 In what year did the last solar maximum occur? 18. 36:50 What force causes the superheating of the corona? 19. 40:30 How often does a solar eclipse occur on the Earth? 20. 41:15 If you stayed in one place on Earth, how often would a total solar eclipse occur? 21. 42:00 When will the Sun die? 22. 42:30 What will the Sun expand to? 23. 42:50 What will happen to Earth’s orbit? 24. 43:10 About what size will the Sun be once it has cast off its outer shells? |
| Summary (What is the **BIG** idea presented in the video): | |