**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?
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| Summary (What is the **BIG** idea presented in the video): |