

## The Universe: Extreme Energy

1. Energy can be neither \_\_\_\_\_ or \_\_\_\_\_, it can only be \_\_\_\_\_ from 1 type to another.
2. Where does the energy of the car crash come from?
3. What is potential energy?
4. What is Kinetic energy
5. When the bullet hits the target, what does the energy get converted into?
6. Einstein said \_\_\_\_\_ is made of \_\_\_\_\_
7. How does a cupcake or pizza have the same energy as TNT
8. Where does all the energy on Earth come from?
9. Stars start with \_\_\_\_\_ energy, then they create \_\_\_\_\_ energy and then \_\_\_\_\_ radiation.
10. What blocks dangerous rays from getting to us?
11. How do we harness electromagnetic radiation (light)?
12. Electromagnetic energy is transformed into \_\_\_\_\_ energy in the tesla car.
13. What advantage does the electric car have?

14. Photosynthesis converts \_\_\_\_\_ energy into \_\_\_\_\_ energy.
15. Fossil fuels come from \_\_\_\_\_.
16. November 2006, what happened?
17. Solar flares come from \_\_\_\_\_ energy.
18. Solar flares are 1500 degrees because they convert \_\_\_\_\_ energy into \_\_\_\_\_ energy.
19. What happens when a star dies?
20. 99% of a super nova is converted into \_\_\_\_\_.
21. What did they observe at Super Kay in Japan?
22. Can we convert neutrinos into energy? Why or why not?
23. January 2008, that did NASA see?
24. What can we do with the kinetic energy of a spinning black hole?
25. \_\_\_\_\_ cosmic rays are the most energetic. They have the energy of a tennis ball hit at \_\_\_\_\_ mph.
26. Cosmic rays have a small mass and a high speed, so they have \_\_\_\_\_ kinetic energy.
27. Are we in danger of these rays? What is?

28. \_\_\_\_\_ energy comes from in the Earth.
29. How does this \_\_\_\_\_ energy come to the surface?
30. We can convert \_\_\_\_\_ energy in to \_\_\_\_\_ energy.
31. Where else can we find this kind of energy?
32. Jupiter and Saturn have lots of \_\_\_\_\_ energy on their surface.
33. Do we have this kind of energy on Earth?      Where does it come from?
34. Energy can't be \_\_\_\_\_ or \_\_\_\_\_.