***The Eyes of Nye: Nuclear Energy***Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 1. What are the three main sections of a nuclear power plant?

 2. What starts the nuclear chain reaction?

 3. What does fission mean?

 4. What two products are formed from the fission of uranium?

 5. How much nuclear waste is produced in 60 years of a power plant operating?

 6. How much waste would a coal plant produce?

 7. Where are most of the nuclear waste and spent fuel rods currently?

 8. What is the estimate for how long it takes nuclear waste to completely decay?

 9. What materials are used to shield or block nuclear radiation?

 10. Why is Yucca Mountain such an attractive location for nuclear waste storage?

 11. What is the half-life of Plutonium, part of nuclear waste?

 12. Why was the 10,000 year standard ruled invalid?

 13. Give two positive and negative arguments involving the usage of nuclear energy.

*Two positive: Two negative:*

 14. How much total nuclear waste exists worldwide?

 15. What are two other ideas for dealing with nuclear waste?

 16. Why can’t the nuclear waste be shot into space?

 17. Describe transmutation.