
PLEASE SUBMIT YOUR WORK THROUGH GOOGLE CLASSROOM

1. Explain the difference between a chemical reaction and a nuclear reaction.

2. What is radioactive decay?

3*. Fact #1: A typical **banana** contains about **10^{20} atoms of unstable radioactive potassium isotope K-40** with a half-life of **1.25 billion years**.

Fact #2: Scientists predict that the Sun will expand into a Red Giant and engulf the Earth in about 7.6 billion years.

Question: **Approximately how many radioactive K-40 atoms from a single banana will still be there ready to get swallowed by the Sun 😊?**