

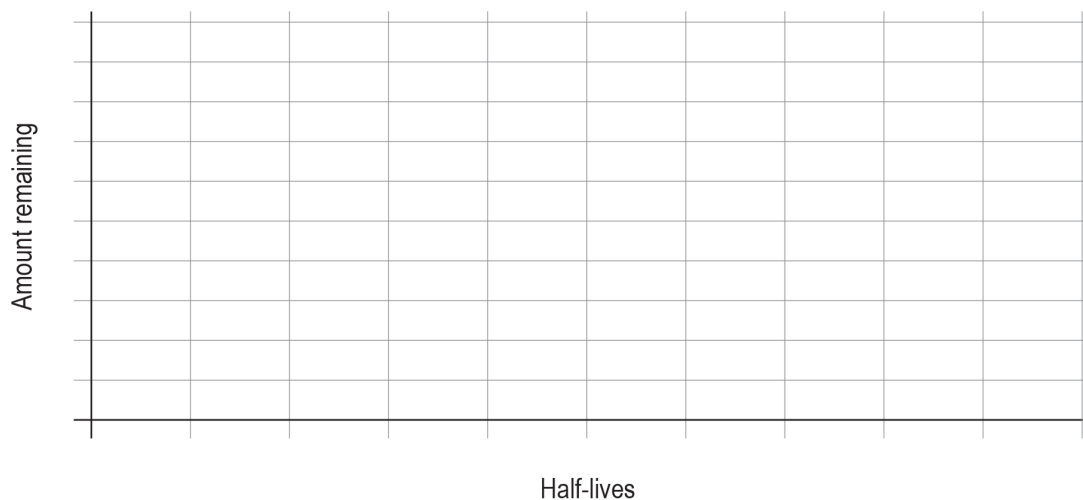
19A – HALF-LIVES

Analysis

Table 1: Half-life decay amounts

	0 half-lives	1 st half-life	2 nd half-life	3 rd half-life	4 th half-life	5 th half-life	6 th half-life	7 th half-life	8 th half-life*
Amount remaining									
% decayed in this trial									
*Attach another piece of paper with additional half-lives if necessary									

Graph 1: Radioactive isotopes remaining over a series of half-lives



Questions

1. Define the term half-life.
2. What does it mean when we say an atom has “decayed”?

3. Review the percent decayed at the end of each individual half-life. On average, what percentage of the radioactive atoms have decayed by the end of each half-life?

4. How is this change reflected in the graph?

5. List two things that stayed the same during this activity and list two things that are different during this activity.

6. Does the number of atoms you start with affect the outcome? Explain.

7. How do scientists use radioactive decay to date fossils and artifacts?