

## Section 7.1

# Atomic Theory, Isotopes, and Radioactive Decay

## Before You Read



### 1. Words to Know

Directions: Match the correct definition to the term on the left.  
Scan pages 286 – 299 to find the definitions.

Words to Know	Definition
___ alpha particle	A. different atoms of a particular element that have the same number of protons but different numbers of neutrons
___ beta particle	B. the only visible part of the electromagnetic spectrum
___ gamma radiation	C. high-energy rays and particles emitted by radioactive sources
___ isotopes	D. the process in which unstable nuclei lose energy by emitting radiation
___ light	E. rays of high-energy, short-wavelength radiation ( $\gamma$ )
___ mass number	F. positively charged atomic particles ( $\alpha$ ) that are much more massive than either beta particles or gamma radiation
___ radiation	G. an electron, ( $\beta$ ); lightweight and fast-moving, they have a greater penetrating power than alpha particles
___ radioactive decay	H. a whole number that represents the sum of an isotope's protons and neutrons

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## 2. Predicting the Main Ideas of Section 7.1

Directions: Scan pages 286 – 299 looking at the pictures and titles within this section. Predict six things you think you will learn in this section.

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