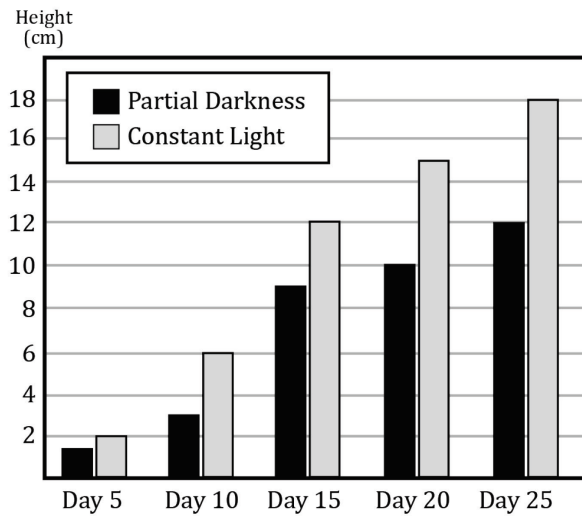


## Passage VI

The following graph summarizes the results of an experiment conducted to investigate the role that light plays in the growth and development of bean seedlings. Seedlings were grown in two conditions: constant light and partial darkness (regular alternating intervals of light and darkness). Seedling heights were measured at five-day intervals following planting and the median height of the seedlings in each group was determined.

Median Height of Bean Seedlings  
(*Phaseolus vulgaris*)



## Passage III

Atoms are considered the basic building blocks of matter. The atom consists of a positively charged center, or nucleus, surrounded by negatively charged electrons. The major kinds of particles in the nucleus are protons, which are positively charged, and neutrons, which have no charge. The number of protons in one atom of an element, called the atomic number, identifies the element. The mass number of the atom represents the total number of protons and neutrons. Not all of the atoms of an element are identical. The different atoms of an element are called isotopes. The three carbon-isotopes are shown in Table 2.

Name	Protons	Neutrons	Electrons	Mass Number
Carbon-12	6	6	6	12
Carbon-13	6	7	6	13
Carbon-14	6	8	6	14

## Passage V

Soil is made up of rock and mineral particles, water, gases (air), dead plant and animal matter, and tiny living organisms. Water soaks into the ground from rain (and other forms of precipitation). Gases come from the air, plants, and animals. Soil also contains living organisms (such as bacteria, fungi, insects, etc.) that break down organic plant and animal matter in the soil, making it rich and healthy for plants to grow in. An experiment was conducted on soil samples collected from two different geological locations. The following graphs summarize the soil sample compositions by content, shown in volume percent.

**Soil Composition by Sample Location**  
(Soil Sample Sizes = 100 mL)

