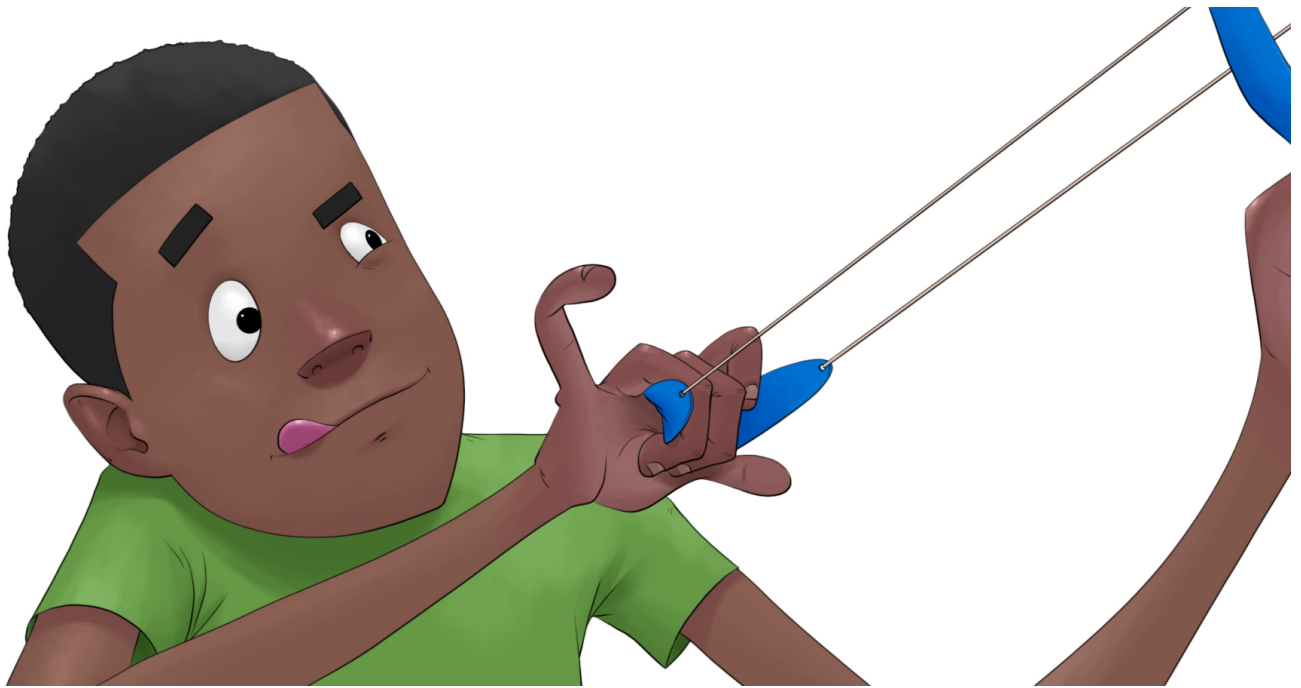


Unit 1 Introduction



Motion

Scientific thinking usually involves explaining the world around us. For centuries man has tried to explain the world in concrete ways. Measurement plays an important role in understanding and communicating our ideas about the world around us. For example, we describe something by how fast or slow it is, how large or small it is, how hot or cold it is, how hard or soft it is, how bright or dark it is, etc. All of these involve some form of measurement. Having common systems of measurement allows people all over the world to communicate findings to each other. We begin our study of physical science in this unit by looking at measurement and motion.

Video 1.1. Motion

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Learning Outcomes

1. Compare and convert units of measure using the metric system and the standard system.
2. Identify the characteristics of a scientific experiment.
3. Describe the motion of an object in terms of position, displacement, distance, velocity, and time.
4. Create and interpret graphs that represent motion (position-time graphs and velocity-time graphs).
5. Calculate the acceleration of an object by analyzing its velocity.

