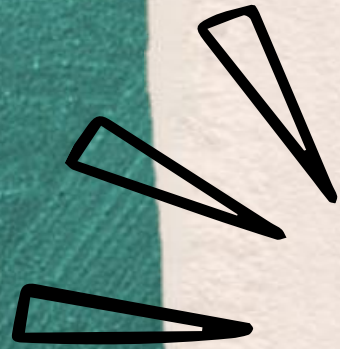




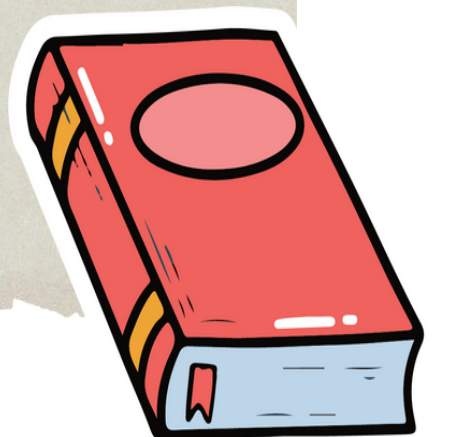
Lesson 22

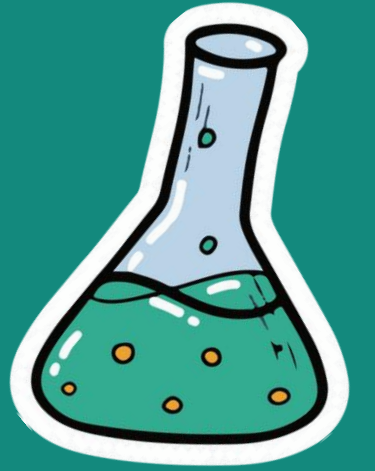
Motion





What is motion? it seems that everything is moving. From the time you wake up until you go to sleep, all our activities involve movement. We have to move in order to complete our task. Motion will always part of our daily life



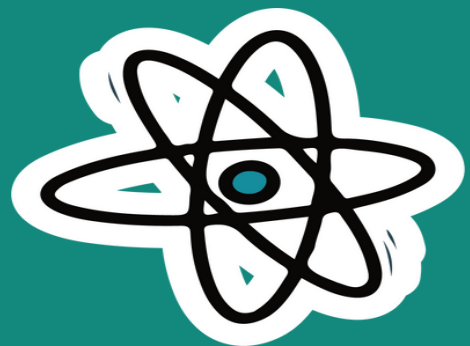



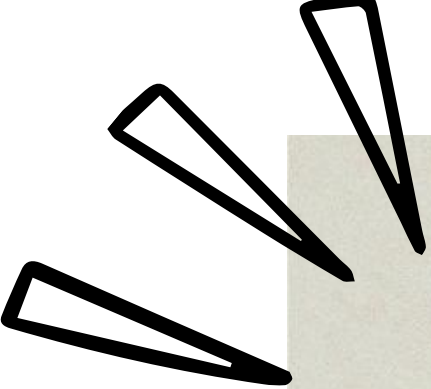
How can you tell if someone is in motion? Motion can be defined as a change of an object's position caused by force. When there is movement, there is motion. There can be no motion without a force or a set of forces. Forces, therefore, initiate and influence motion.



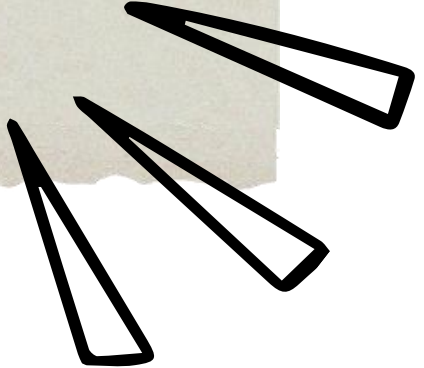


Motion is relative. Consider the passengers in a moving car. Passenger inside the car do not consider themselves moving because they are just sitting in the car. However, the people standing outside consider them moving because the car is changing its position from one point to another point. By definition, motion is a change in position with respect to a reference point.





A **reference Point** is a fixed place on a object used to determine the position of an object. If the reference point is the ground outside the car, the passenger are moving. If the reference point is the floor of the car, the passenger are not moving.





Compare the pictures. Did the pencils move?

If the reference point is the pile of books, the pencil change its position. However, if the reference point is the penholder, the pencil did not change position for they are still inside the penholder.

For examples about the bus passenger and the pencils show relative motion is. It all depends on reference point.

Thank
you

