

Motion

Chapter 7



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How do you describe the motion of an object?

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Describing Motion

Lesson 1



When is an object in motion?

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I. When is an object in motion

A. Motion is when an object changes position relative to another object

ex. riding in a car

your position in the car changes compared to a street sign

ex. sitting in a chair

your position relative to the chair

ex. hands on a clock

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B. Reference Point

* A reference point is a place or object used for comparison to determine if something is in motion

* An object is in motion if it changes position relative to the reference point

* Objects that are fixed relative to Earth are good reference points

ex. buildings, trees, signs

*Moving reference points

ex. cars on the expressway

runners on a race track

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C. Relative Motion

Your position relative to your chair = not moving

Your position on Earth relative to the sun

Earth moves 30km/sec

You are moving relative to the sun

But since you are moving with the Earth,

it doesn't seem like you are moving

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D. Measuring distance

To describe motion completely, you use units of measure

- * SI Units- International System of Units

- * Unit for distance = meter

- * Scientists use other units to measure distance

centimeter $100\text{cm} = 1\text{m}$

millimeter $1000\text{ mm} = 1\text{m}$

Kilometer $1000\text{m} = 1\text{km}$

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