

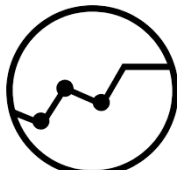
Tools



Physics NYA



Activities
Learning Objectives



Formative
Assessment



Assessments

Blocks

Activity

Artef.

Assess.

M/W

Recurring
Blocks

Content

Week 1

Introductory activity:
Mechanics Scavenger Hunt

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-Students recognize and represent diagrammatically the four basic concepts used for the course: kinematics, forces, energy, and momentum.
-Students are able to identify examples of these in the real world.

Diagrams

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Students produce simple motion, force, energy, or momentum diagrams for each item in the scavenger hunt.

Scavenger Hunt Diagnostic


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Used as diagnostic for student level/prior knowledge.

Motion Diagrams Gallery Walk

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-Students take a described or observed motion and create the corresponding motion diagram, representing displacement, velocity, and acceleration as vectors.



Motion Diagrams


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Students produce motion diagrams, uploading them to Visual Classrooms.

Motion Graphs Distributed Problem Solving

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-Students are able to represent motion as a series of graphs, starting both from described motion or from a motion diagram.



Motion Graphs

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Students produce motion graphs from another group's diagram, uploading them to Visual Classrooms.

Motion Graphs

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Assessed as assignment.

Week 2

Case Study Part 1: 1D Motion

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-Students are able to use kinematic equations to solve 1D motion problems numerically.



Vertical "Projectile" Analysis


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Results of case study are uploaded to Visual Classrooms.

Case Study Part 2: Projectile Motion

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-Students are able to apply the principles of projectile motion to predict trajectories.



2D Projectile Analysis

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Results of case study are uploaded to Visual Classrooms.

2D Projectile Analysis

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Assessed as assignment.

Week 3

Intro

1D Motion

2D Motion