



Achievements and Competencies

Learning Outcomes

Grades 10-12
Energy and momentum

Achievements and Competencies are based on the Common Framework of Science Learning Outcomes (K-12) set by the Canadian Council of Ministers of Education (1997).

Specific Expectations

Grade 12

PHYSICS

Energy and momentum

115-1 Distinguish between scientific questions and technological problems (e.g., distinguish between scientific questions such as "What is the law of conservation of energy?" and technological problems such as "How can we apply these concepts in the development of safety devices in cars?").

The two demonstrations in the *Tumbling Dominoes* activity gives students the chance to determine how the law of conservation of energy can be applied to cause average sized dominoes to climb up a staircase, or cause a small domino to set in motion a chain of tumbling dominoes which can cause a domino over 100 times its height to fall.

326-1 Analyse quantitatively the relationships among mass, height, speed and heat energy using the law of conservation of energy.

The two demonstrations in the *Tumbling Dominoes* activity use different sizes of dominoes to illustrates how mass and height are related to the law of conservation of energy.