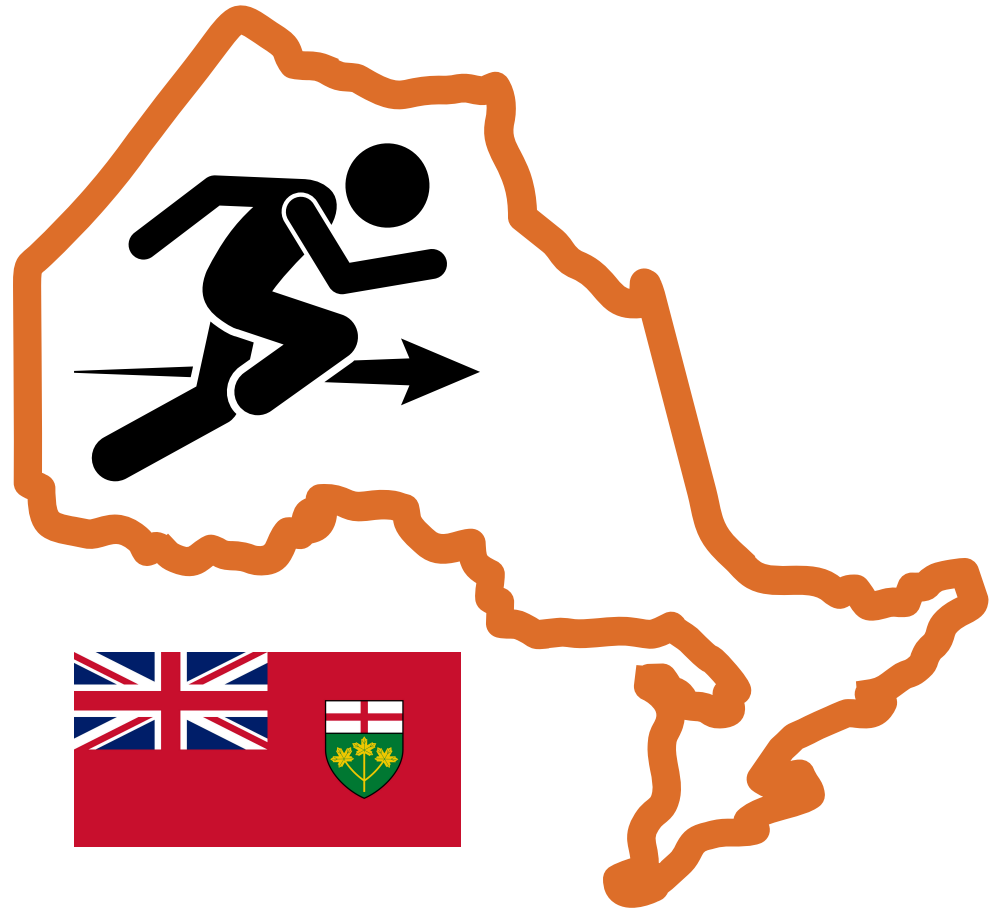


Ontario Grade 11 PHYSICS

MOTION (Kinematics) Unit

- ✓ Complete Grade 11 Ontario Motion Unit
- ✓ Daily Teaching Schedule
- ✓ 5 Lessons, Activities, Review, 3 Quizzes, 1 Test
- ✓ Fully Editable Resources
- ✓ Save you over 75%

SPH3U

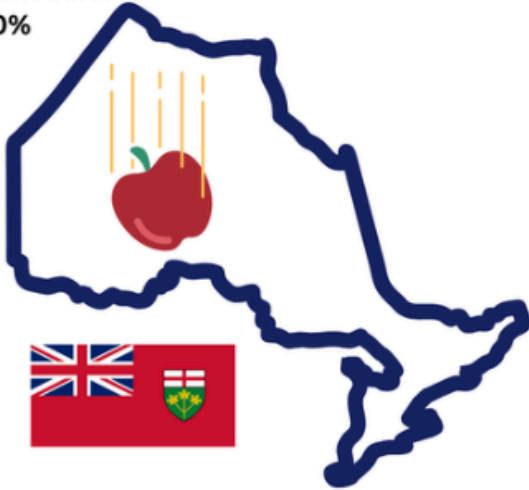


UPGRADE to the Bundle

Ontario Grade 11 PHYSICS Teaching Curriculum Bundle

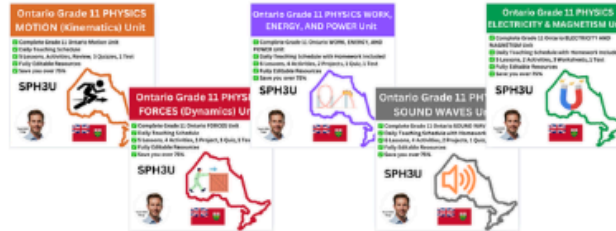
- ✓ Complete Grade 11 Ontario Year-Long Curriculum
- ✓ 5 Complete Units - Lessons, Activities, Worksheets, Homework, Quizzes, and Tests
- ✓ Daily Teaching Schedules
- ✓ Save you over 90%

SPH3U



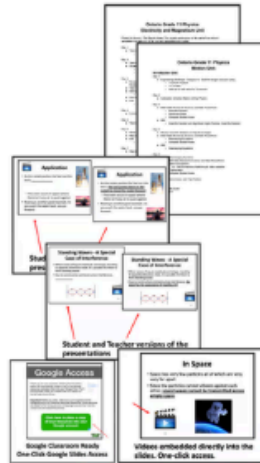
Included Units

- Unit 1 - Motion
- Unit 2 - Forces
- Unit 3 - Work, Energy, and Power
- Unit 4 - Sound Waves
- Unit 5 - Electricity and Magnetism



Everything You Need to Teach 11th Grade PHYSICS in Ontario

- Daily teaching schedule which breaks down what to teach each day
- Lessons in PowerPoint and Google form
- HW Provided
- Teacher and student versions of each lesson
- Projects and Unit Test
- All activities and review activities mentioned in the teaching schedule



CLICK HERE



**Save 90% and get the FULL ONTARIO
Grade 11 Physics Curriculum**

Lessons Included

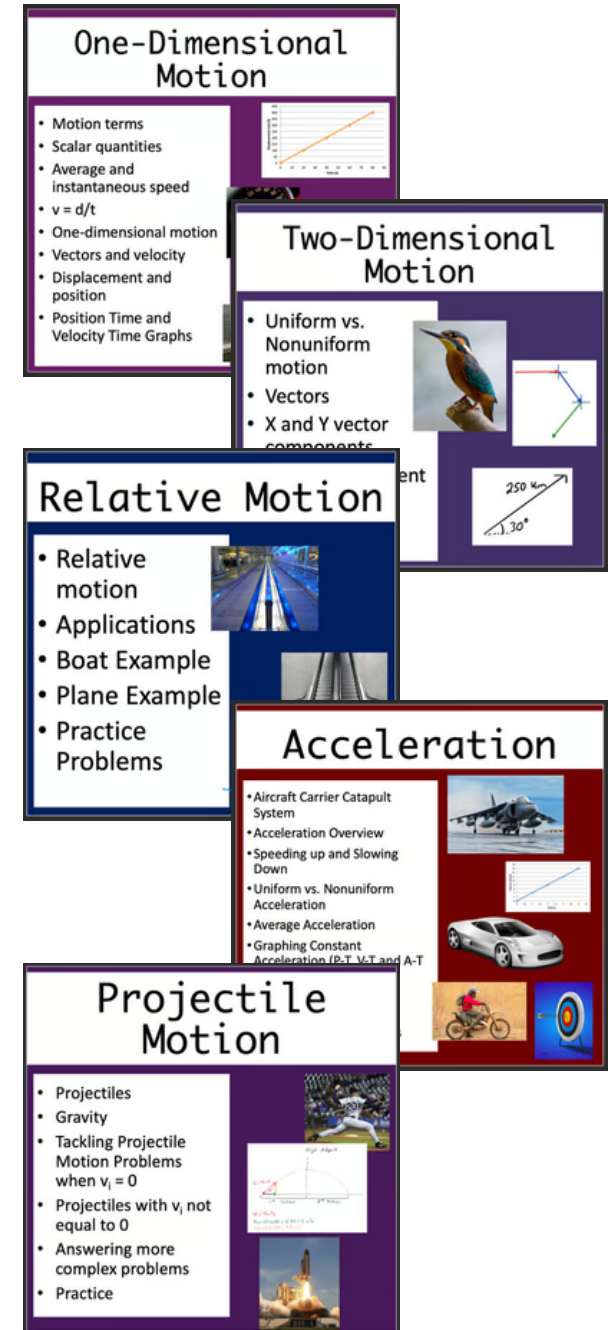
Lesson 1 - One-Dimensional Motion

Lesson 2 - Two-Dimensional Motion and Vectors

Lesson 3 - Relative Motion

Lesson 4 - Acceleration

Lesson 5 - Projectile Motion



Daily Teaching Schedule

Ontario Grade 11 Physics Motion Unit

Introduction Unit

Day 1:

- Engineering Challenge - Groups of 3 - Build the longest structure using
 - 10 pieces of paper
 - 1 m of tape
 - Held up on both ends for 10 seconds

Day 2:

- Icebreaker Activities Station Activity Physics

Day 3:

- Math Skills Review for Science and Math
 - Scientific Notation
 - Significant Digits
 - Complete Student Notes
- HW:
 - Scientific Notation and Significant Digits

Day 4:

- Review Scientific Notation and Significant Digits
- Math Skills Review for Science and Math
 - Rearranging Equations
 - Complete Student Notes
- HW:
 - Rearranging Equations

Day 5:

- Review Rearranging Equations
- Teach Math Skills Review for Science and Math
 - Metric Conversions
 - Unit Conversions Worksheet
 - Trigonometry
 - Complete Student Notes
- HW:
 - Conversions, and Trig Practice

Day 6:

- Math Skills Quest
- Start Unit 1

Day 7:

- Teach Lesson 4 - Acceleration - Part 2
- Acceleration HW
 - Complete
- Uniform Acceleration Worksheet 1
- HW:
 - Uniform Acceleration Worksheet 1

Day 8:

- Fg - Free Fall Lab

Day 9:

- Quiz L4 2 DAYS
- Start Acceleration Practice - Motion Review (L1-4)

Day 10:

- Quiz L4 NEXT DAY
- Finish Acceleration Practice - Motion Review (L1-4)
- Uniform Acceleration Worksheet 2
- HW:
 - Uniform Acceleration Worksheet 2

Day 11:

- Lesson 4 Quiz
- Uniform Acceleration Worksheet 3
- Workbook
- HW:
 - Uniform Acceleration Worksheet 3

Day 12:

- Teach - Lesson 5 - Projectile Motion - Part 1
- Projectile Motion HW Questions
 - Solutions: <https://www.youtube.com/watch?v=GtYcBUAXi7A>
- HW:
 - Projectile Motion HW Questions

Day 13:

- Quiz L5 - 2 DAYS
- Work and Review Period
- Teach - Lesson 5 - Projectile Motion - Part 2
- Projectile Motion Practice Problems

Motion Unit

Day 1:

- Teach - Lesson 1 - One Dimensional Motion - Part 1
 - Complete Student Notes
- One-Dimensional Motion HW
- HW:
 - One-Dimensional Motion HW

Day 2:

- Teach - Lesson 1 - One Dimensional Motion Part 2
 - Complete Student Notes
- Speed Challenge
- One-Dimensional Motion HW
- HW:
 - One-Dimensional Motion HW

Day 3:

- Teach - Lesson 2 - Two-Dimensional Motion Part 1
 - Complete Student Notes
- Two-Dimensional Motion HW
- HW:
 - Two-Dimensional Motion HW

Day 4:

- Quiz L1-3 2 DAYS
- Lab Station Activity - 1 and 2 Dimensional Motion
- If students finish early, they can work on L1 and 2 Worksheet
- HW:
 - L1 and 2 Worksheet

Day 5:

- Quiz L1-3 NEXT DAY
- Teach - Lesson 3 - Relative Motion
 - Complete Student Notes
- L3 Worksheet
- HW

Day 6:

- Quiz
- Teach

Day 14:

- Quiz L5 - NEXT DAY
- Finish - Lesson 5 - Projectile Motion - Part 2
- Finish all remaining questions

Day 15:

- Quiz L5
- Kinematics Task Cards
- HW:
 - Review for the test

Day 17:

- Kinematics Escape Room
 - Must show FULL work for all questions in order

Day 18:

- Unit 1 Test

Everything You Need to Teach 11th Grade MOTION Unit in Ontario

- My daily teaching schedule which breaks down what to teach each day
- Lessons in PowerPoint and Google form
- Teacher and student versions of each lesson
- All quizzes and tests mentioned in the teaching schedule
- All activities and review - each one mentioned in the teaching schedule is include

Ontario Grade 11 Physics Motion Unit	
Introduction Unit	
Day 1	Engineering Challenge - Groups of 3 - Build the tallest structure using: 10 pieces of paper 1 m of tape - Hold up on both ends for 10 seconds
Day 2	Substation Activities Station Activity Physics
Day 3	Math Skills Review for Science and Math PowerPoint - Scientific Notation - Significant Digits - Complete Student Notes HW: - Scientific Notation and Significant Digits Practice - Scientific Notation
Day 4	Review Scientific Notation and Significant Digits - Math Skills Review for Science and Math PowerPoint - Rearranging Equations - Complete Student Notes HW: - Rearranging Equations
Day 5	Review Rearranging Equations - Math Skills Review for Science and Math PowerPoint - Unit Conversions - Unit Conversions Walkthrough video available - Trigonometry - Complete Student Notes HW: - Conversions, and Trig Practice
Day 6	Math Skills Quiz Start Unit 1

Relative Motion

Suppose a large boat is moving at a velocity of 5.0 m/s [E] relative to the shore and a passenger is jogging at a velocity of 3.0 m/s [E] relative to the boat.

Relative to the shore, the passenger's velocity is the addition of the two velocities, 5.0 m/s [E] and 3.0 m/s [E], or 8.0 m/s [E].

The shore is one frame of reference, and the boat is another.



Student and Teacher versions of the presentations

Kinematics Unit Test V.1a	
Name: _____	
Date: _____	
30	
PART 1: MULTIPLE CHOICE SECTION (circle the letter you think is the correct answer for each question)	
1. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its final velocity?	a. 10 m/s b. 20 m/s c. 30 m/s d. 40 m/s
2. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its displacement?	a. 10 m b. 20 m c. 30 m d. 40 m
3. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its average velocity?	a. 10 m/s b. 20 m/s c. 30 m/s d. 40 m/s
4. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its final speed?	a. 10 m/s b. 20 m/s c. 30 m/s d. 40 m/s
5. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its final position?	a. 10 m b. 20 m c. 30 m d. 40 m
6. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its final velocity?	a. 10 m/s b. 20 m/s c. 30 m/s d. 40 m/s
7. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its displacement?	a. 10 m b. 20 m c. 30 m d. 40 m
8. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its average velocity?	a. 10 m/s b. 20 m/s c. 30 m/s d. 40 m/s
9. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its final speed?	a. 10 m/s b. 20 m/s c. 30 m/s d. 40 m/s
10. A car starts from rest and accelerates at 2.0 m/s^2 for 5.0 s . What is its final position?	a. 10 m b. 20 m c. 30 m d. 40 m

Google Access

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Important: Before you click, make sure you're signed in to the Google account you'd like the resources placed into. If the resources are added to the wrong account, simply sign out and then sign into the correct one and repeat the process.

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Google Classroom Ready
One-Click Google Slides Access

Complete Lessons

What Will Happen...

- You have two objects
- One is pushed horizontally off a desk while the other is dropped from the same height
- Which will hit the ground first assuming both have a $v_i = 0$



2

Videos embedded directly into the slides. One-click access

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Thank you for your purchase. Clicking the link button below will automatically create a copy of the Google resources and place them into your Google Drive. You'll find the folder inside the "Shared with me" section on the left side of your Drive.

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TWF

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Ontario Grade 11 Physics Motion Unit

Introduction Unit

Day 1:

- Engineering Challenge - Groups of 3 - Build the longest structure using
 - 10 pieces of paper
 - 1 m of tape
 - Held up on both ends for 10 seconds

Day 2:

- Icebreaker Activities Station Activity Physics

Day 3:

- Math Skills Review for Science and Math PowerPoint
 - Scientific Notation
 - Significant Digits
 - Complete Student Notes

HW:

- Scientific Notation and Significant Digits Practice - Scientific Notation

Day 4:

- Review Scientific Notation and Significant Digits
- Math Skills Review for Science and Math PowerPoint
 - Rearranging Equations
 - Complete Student Notes

HW:

- Rearranging Equations

Day 5:

- Review Rearranging Equations
- Teach Math Skills Review for Science and Math PowerPoint
 - Metric Conversions
 - Unit Conversions Walkthrough video available
 - Trigonometry
 - Complete Student Notes

HW:

- Conversions, and Trig Practice

Day 6:

- Math Skills Quest
- Start Unit 1

Daily Teaching Schedule

Relative Motion

- Suppose a large boat is moving at a velocity of 5.0 m/s [S] relative to the shore and a passenger is jogging at a velocity of 3.0 m/s [S] relative to the boat
- Relative to the shore, the passenger's velocity is the addition of the two velocities, 5.0 m/s [S] and 3.0 m/s [S], or 8.0 m/s [S]
- _____



Relative Motion

- Suppose a large boat is moving at a velocity of 5.0 m/s [S] relative to the shore and a passenger is jogging at a velocity of 3.0 m/s [S] relative to the boat
- Relative to the shore, the passenger's velocity is the addition of the two velocities, 5.0 m/s [S] and 3.0 m/s [S], or 8.0 m/s [S]
- The shore is one frame of reference, and the boat is another



Student and Teacher versions of the presentations

Check Your Understanding

A ball is thrown from a window 10.0 m above the ground with an initial horizontal velocity of 3.0 m/s.

- How long will it take the ball to reach the ground?
- How far will the ball travel horizontally (i.e. its range)?

Student Version

Check Your Understanding

A ball is thrown from a window 10.0 m above the ground with an initial horizontal velocity of 3.0 m/s.

- How long will it take the ball to reach the ground?
- How far will the ball travel horizontally (i.e. its range)?

Answer: a) 1.4 s b) 4.3 m [horizontal]

Teacher Version

Opportunities for students to check their understanding

Activities, Review, Quizzes, and Test

Kinematics Digital Escape Room

- ✓ **Classroom Ready** - Just Assign and Observe the Fun!
- ✓ **Reinforces Key Concepts** - Covers 1 & 2D Motion, Relative Motion, Acceleration, and Projectile Motion.
- ✓ **Engaging & Interactive** - Transforms review into an exciting challenge.
- ✓ **Fully Digital using Google Forms** - Accessible anywhere, perfect for in-person or remote learning!

Includes Full Answer Walkthrough



One and Two-Dimensional Motion Lab Station Activity



7 Lab Station Activities to get your kids out of their seats and engaged in their learning

Kinematics Task Cards and Review Activity

Perfect for learning or reviewing Kinematics.
15 Task Cards + Activity
- 1D & 2D Motion
- Acceleration
- Projectile Motion
This Task Card Resource is unique. It can be utilized in a clue gathering, puzzle solving, highly active and engaging activity or as an alternative to worksheet review.

1

A bus drives 40.0 km [E] from town A to town B, then another 30.0 km [S] to town C in a total time of 1.00 h. What is the value of its average velocity (no direction)?

2

A tennis ball is thrown horizontally from the top of a water tower lands 20.0 m from the base of the tower. If the tennis ball is initially thrown at a velocity of 10.0 m/s, how high is the water tower?

3

A championship golfer uses a club to hit a ball straight into the hole. If the golf ball is launched at a velocity of 20 m/s at an angle of 45° above the horizontal, what maximum height did the ball reach?

Kinematics Unit Test V.1 a

Name: _____

30

PART A: TRUE/FALSE SECTION: circle either true or false to indicate your answer for each statement

1. The acceleration of a cyclist travelling initially at 14 m/s [S], brakes smoothly and stops in 4.0 s is 3.5 m/s ² [S]	True	False
2. The average speed of a moving object is the total displacement travelled divided by the total time elapsed	True	False
3. A vector quantity has both direction and magnitude.	True	False
4. The magnitude of the horizontal component of the vector 250 km [E 30° N] is 125 km	True	False
5. Projectiles travel with a parabolic trajectory because the downward force of gravity.	True	False

PART B: MULTIPLE CHOICE (8 marks): Place your answers in the table below:

1	2	3	4	5	6	7	8

1. What is your displacement if you walk 250 m east and then 100 m west?

- a) 150 m [W]
b) 250 m [W]
c) 350 m [E]
d) 150 m [E]

2. Which vector direction is equivalent to N 40° W?

- a) N 50° W
b) N 50° E
c) E 50° N
d) W 50° N

3. A tennis ball is thrown upward at an angle from point A. It follows a parabolic trajectory and hits the ground at point D. At the instant shown, the ball is at point B. Point C represents the highest position of the ball above the ground.



While in flight, how do the x and y components of the velocity vector of the ball compare at the points B and C?

- a) The velocity components are non-zero at B and zero at C.
b) The x components are the same, the y component at C is zero m/s.

c) The x component at B is larger than the x component at C then at B, component at B points up while at C, it points downward.

d) The magnitude of its displacement?

Kinematics Quiz - 1 and 2D Motion - L1-3 - v1 a

Name: _____ /6

Place your answers in the table below:

1	2	3	4	5	6

1. Which of the following measurements is a scalar quantity?

- a. 49 km/h [N]
b. 100 m [E]
c. The instantaneous velocity of a parachutist.
d. The displacement of a skier from her base station.
e. The measured driving distance between Toronto and Montreal.

2. Which of the following graphs depicts uniform motion?



- a. A and B
b. C and D
c. A and C
d. B and D
e. E only

3. A bus drives 40.0 km [E] from town A to town B, then another 30.0 km [S] to town C in a total time of 1.00 h. What are the values of its average speed and average velocity, respectively?

- a. 70.0 km/h, 50.0 km/h [E]
b. 70.0 km/h, 70.0 km/h [E]
c. 50.0 km/h, 50.0 km/h [E]
d. 50.0 km/h, 70.0 km/h [E]
e. 50.0 km/h [E], 70.0 km/h

4. The area under a velocity-time graph represents

- a. acceleration
b. instantaneous velocity
c. displacement
d. distance
e. average velocity

5. In Hawaii's 1999 Ironman Triathlon, the winning athlete swam 3.9 km, biked 180.2 km, and then ran 42.2 km, all in an amazing 16 h 17 min 17 s. Determine the winner's average speed, in metres per second.

- a. 6.91 m/s
b. 4.59 m/s
c. 5.13 m/s
d. 7.58 m/s
e. 8.66 m/s

6. An airplane pilot checks the instruments and finds that the velocity of the plane relative to the air is 120 km/h [35° S of E]. A radio report indicates that the wind velocity relative to the ground is 75 km/h [E]. What is the velocity of the plane relative to the ground as recorded by an air traffic controller in a nearby report?

- a. 8.3×10^4 km/h [E 48° S]
b. 3.4×10^4 km/h [E 29° S]
c. 2.6×10^4 km/h [E 32° S]
d. 4.5×10^4 km/h [E 44° S]
e. 1.5×10^4 km/h [E 17° S]

3 Quizzes and 1 Test with Answer Key

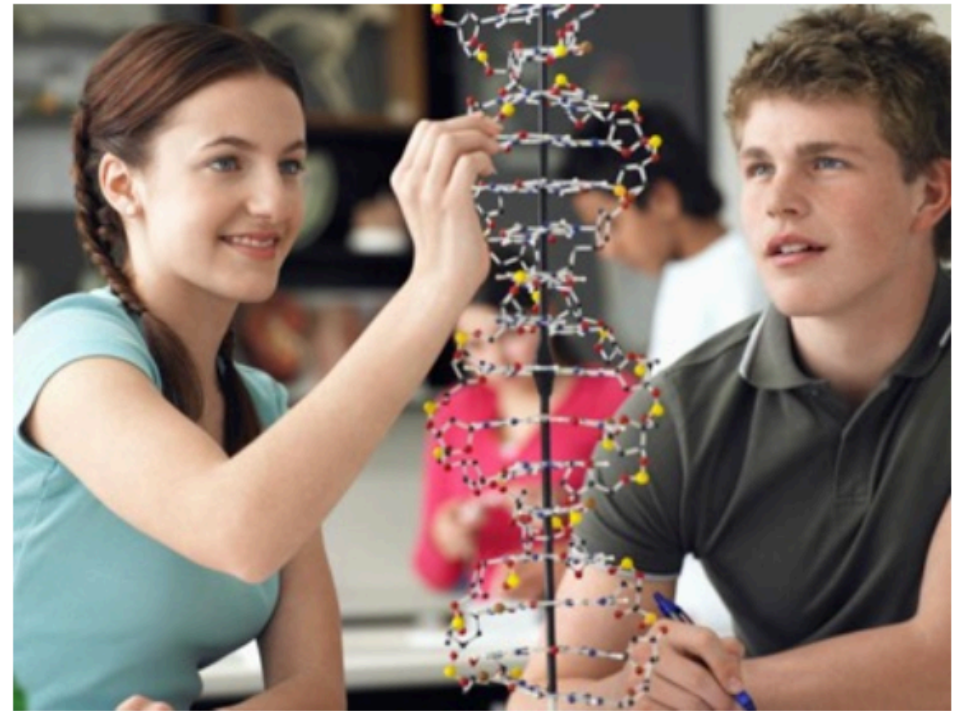
Who is This Unit For?

- Teachers who teach grade 11 physics in Ontario
- Teachers who want a no-prep, ready to go out of the box unit
- Teachers who don't have time to plan out their Unit

Get away from tired practices and unengaged students



Provide a Scientifically-Proven means of instruction



Incorporate Technology and Increase Collaboration

