



6-110 Konrad Cres.  
Markham ON L3R 9X2  
info@scitechnia.org

## (EEIP Lv3) Experiment Empowered Introductory Physics

Jan 2025 Version

### Goal and Motivation

This program aims to offer students in middle school and junior years of high school an introduction to high school physics from the experimental perspective. Physics education in high school tends to have a strong focus on theory. However, students often learn physics better when it is taught with experiments. The Experiment Empowered Introductory Physics (EEIP) series is suitable for all students interested in physical science and engineering. EEIP Level 3 focuses on electromagnetism and optics.

### Prerequisite

- Grade 11 Functions or equivalent math
- Completed EEIP Level 2
- Grade 12 or equivalent physics recommended

### Textbook

Fundamentals of Physics 10th Edition by Halliday and Resnik This is one of the most renowned books for introductory physics. EEIP Level 2 will cover **Chapters 21 - 38**. Certain sections will be skipped and revisited in later levels.

### Date and Time

**Concept Lecture:** To be announced later.

**Experiment Session:** To be announced later.

### Tuition

\$1800 (19 weeks, 38 hours total)

## Schedule

Week	Date	Topic	Experiment
1, 2	Jan 25, Feb 1	Coulomb's Law	Charge meter
3, 4	Feb 1, 8	Electric Field and Potential	Equipotential Line
5	Feb 15	Capacitance	Measure Capacitance
Instructor away for CaYPT Competition (Feb 22, Mar 1)			
6	Mar 8	Circuits	Measure Resistance
7, 8	Mar 15, 22	Magnetic Field 1	Measure magnetic field of permanent magnet
9, 10	Mar 29, Apr 5	Magnetic Field 2	Magnetic field of a current carrying wire
11, 12	Apr 12, 19	Electromagnetic Induction	Make a Transformer
13, 14	Apr 26, May 3	Alternating Current	RLC Circuits
15, 16	May 10, 17	Geometric Optics	Confirming Snell's Law
17, 18	May 24, 31	Wave Optics	Double Slit Diffraction
19	Jun 7	Buffer time, review	

## Registration, Contact, and Payment

**Registration:** Send an email to [info@scitechnia.org](mailto:info@scitechnia.org). Please include the student name, grade.

**For inquires:** Please email [info@scitechnia.org](mailto:info@scitechnia.org)

**Payment:** e-Transfer to [info@scitechnia.org](mailto:info@scitechnia.org).