

## **Intro to Electronics (using Snap Circuits)**

### **Course Syllabus and Parent Lesson Planner**

#### Course Orientation:

##### Description:

In this course there are 5 modules that cover everything from the introduction of Premiere to Exporting your videos.

- Module 1 covers what electricity is, the history of electricity, and some key figures in electricity history.
- Module 2 covers how electricity flows.
- Module 3 covers Conductors and Insulators, including what they are and their differences.
- Module 4 covers the different components involved with electricity and electronic circuits.
- Module 5 covers Series and Parallel Circuits and their differences.

This course, upon completion, will give you the skills necessary to have a basic understanding of electricity and electronic circuits for college/work purposes.

#### Course Length:

As an elective course, we recommend one or two modules / week. Therefore, we feel that this course should take approximately 5 weeks to complete all modules/quizzes, and leave time to study, and take, the final exam. (See Lesson Plan below)

#### Course Pre-Requisites (if applicable):

This course does not require any pre-requisite courses.

#### Course Requirements:

**Computer/tablet/smart phone** – Students must have access to a computer/tablet/smart phone with internet access and an internet browser. Techknow Training Studios has been successfully tested using Internet Explorer, Firefox, Chrome, and Safari. In addition, we have tested many versions of smart phone/tablet browsers as well.

### Course Requirements (continued):

**Internet Access** – Although results may vary, based on connection type and speeds, we have tested our online videos on DSL, Satellite, Cable, and cellular connections. Our courses cannot be download and require internet access to view them.

### COURSE SOFTWARE REQUIREMENTS:

**Microsoft Software:** Please visit the Microsoft store where you can view the different Microsoft Office purchase options available.

[http://www.microsoftstore.com/store/msusa/en\\_US/cat/All-Office/categoryID.69403900?icid=en\\_US\\_Store\\_UH\\_software\\_Office](http://www.microsoftstore.com/store/msusa/en_US/cat/All-Office/categoryID.69403900?icid=en_US_Store_UH_software_Office)

We recommend the Office 365 Personal edition, as it's the least expensive option and you receive all of the Microsoft software covered by Techknow Training Studios (including Microsoft Access).

#### **Adobe Software:**

Adobe offers special pricing for students/teachers. Please visit this link for info on their pricing:

<https://creative.adobe.com/plans?plan=edu&promoid=KTROQ>

#### **TechSmith (Camtasia):**

[http://shop.techsmith.com/store/techsm/en\\_US/cat/categoryID.67158100](http://shop.techsmith.com/store/techsm/en_US/cat/categoryID.67158100)

**Prezi:** <https://prezi.com/>

**Scratch Programming:** <https://scratch.mit.edu/>

**Snap Circuits:** [http://elenco.shptron.com/products/productdetail/part\\_number=ELESC-300/442.0](http://elenco.shptron.com/products/productdetail/part_number=ELESC-300/442.0)

### Course Grading:

Techknow Training Studios requires all students to pass a quiz following each module with a score of 80% or higher. The student can retake the module if they aren't able to complete the quiz with a passing score. Typically, module quizzes will be 10 questions long. There is a final exam at the end of each course, which is a compilation of all the module quiz questions. The amount of questions for final exams vary. Students are required to pass the final exam with a passing score of 70% to complete the course. Grades can be viewed by viewing the completed courses in the Course Library or by viewing courses still being taken from the dashboard 'In Progress' tab.

Detailed student transcripts and course reports can be provided to you by simply requesting them from our Techknow Training Studios support team at [studentsupport@techknowcoa.com](mailto:studentsupport@techknowcoa.com)

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Please find a list of acceptable file upload types below. If your course requires a different file type or your files will exceed the 250 MB limit, please contact us and we will assist you in setting up a Google Drive folder for project file uploads.

.pdf – Document Format	.jpg – Picture Format
.doc – Document Format	.jpeg – Picture Format
.txt – Document Format	.png – Picture Format
.rtf – Document Format	.gif – Picture Format
.pages – Mac Document Format	.bmp – Picture Format
.wav – Audio Format	.htm – Web Format
.mp3 – Audio Format	.html – Web Format
.xls – Excel Spreadsheet Format	.ppt – PowerPoint Format
.xlsx – Excel Spreadsheet Format	.pptx – PowerPoint Format
.numbers – Mac Spreadsheet Format	.mov – Video Format
.avi – Video Format	.psd – Photoshop Format
.wmv – Video Format	.flv – Video Format
.m4v – Video Format	.key – Software Format
.mp4 – Video Format	.3gp – Multimedia Format
.mpg – Video Format	.mpeg – Video Format

## Lesson Plan:

Module 1 – What is Electricity?	Week 1
Module 1 – Quiz	Week 1
Module 2 – How Electricity Flows	Week 2
Module 2 – Quiz	Week 2
Module 3 – Conductors and Insulators	Week 3
Module 3 – Quiz	Week 3
Module 4 – Electronic Components	Week 4
Module 4 – Quiz	Week 4
Module 5 – Parallel and Series Circuits	Week 5
Module 5 – Quiz	Week 5
Study for Final Exam	Week 5 – (1-2 Hours)
Final Exam	Week 5 – 1 Hour