



SkillsCommons + SoftChalk = Learning!

SkillsCommons OER Makeover Strategy with SoftChalk

Session 3: “Love it and Embed it”

Rick Lumadue, PhD, Associate Director of SkillsCommons

Sue Evans, Co-Founder of SoftChalk



Sue Evans

Co-Founder, SoftChalk

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Why are we here?

- Provide you open educational strategies and tools you can use immediately at any readiness level
- Introduce series of 4 webinars

SkillsCommons + SoftChalk = Learning! **SkillsCommons OER Makeover Strategy with SoftChalk**

- Session 1: "Hidden Potential"
- Session 2: "Design on a Dime"
- **Today: Session 3 of our 4-part webinar series: "Love it and Embed it"**
- Session 4: "Extreme Makeover"

Agenda

- Affordable Learning Solutions as the institutional driver for the OER Makeover Strategy
- Reuse OER for workforce training materials from SkillsCommons
- Use the tools of SoftChalk to quickly and easily makeover the OER



Textbook affordability affects access to education and graduation in a timely manner

Institutions need a strategy to provide students no cost and low-cost instructional materials that enable their successful learning and course completion.

Affordable Learning Solutions



Where do you find no and low-cost course materials for Career and Technical Education that faculty will adopt?



Rick Lumadue

Associate Director, SkillsCommons

richard.lumadue@csulb.edu

What is OER and why are they important?



Open educational resources (OER) are freely accessible, openly licensed documents and media that are useful for teaching, learning, and assessing as well as for research purposes.

Open Educational Resources

TAACCCT has created the world's largest OER project featuring job-driven workforce development materials.



3,000,000

materials
downloaded to date



65,000

Over 65,000 materials
available for download,
and this continues to
grow steadily every
month

Does Other's OER Always Fit Your Needs?

**You Want to Improve and
Customize the OER to Meet Your
Needs?**



You may need to “Makeover” the OER

Why OERs are critical for Makeovers

Open Educational Resources (OER) in SkillsCommons licensed with the CC BY Creative Commons License

Anyone can freely:

- Reuse
- Revise
- Retain
- Redistribute
- Remix

What Changes Could You Make?

- Simplify and streamline presentation of content
- You can add interactivity
- You can upload videos
- Repackage in a quality format that's easy to use
- Share with others who don't have access to your LMS

Love it and Embed it!



Contents

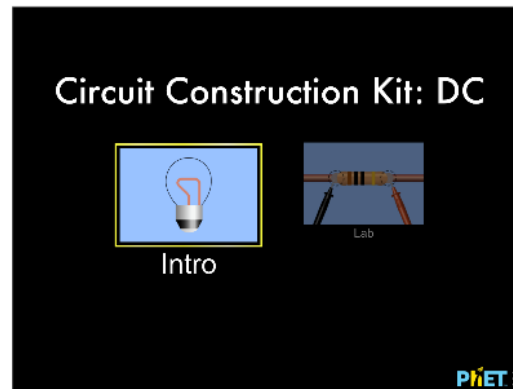
Overview

Introduction

Simulation and Lab Activity

Simulation

Experiment with an electronics kit! Build circuits with batteries, resistors, light bulbs, fuses, and switches. Determine if everyday objects are conductors or insulators, and take measurements with an ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a lifelike view.



Lab Activity

This laboratory activity will introduce the student to use of the Circuit Construction Interactive Simulation tool that will be utilized to further investigate electrical concepts and circuits.

[Click here to download a copy of the Lab Activity.](#)

Introduction to Circuit Construction Simulation

ACTIVITY:

The Circuit Construction Simulation is an electronics kit in your computer! Students will utilize this program to build circuits with resistors, light bulbs, batteries, and switches. Take measurements with the realistic ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a lifelike view. Students will also use the program to observe basic electrical relationships, build circuits from schematic drawings, provide reasoning to explain the measurements and relationships in circuits, discuss basic electrical relationships in series and parallel circuits, and determine the resistance of common objects.

1. When a student first opens the program they will see a blank screen (figure 1-1) with options on the side. These options are the tools that you will be utilizing and are similar to what you would be using if testing circuits on a circuit board. The primary difference between a circuit board and the simulation is that the simulation is two-dimensional, but also has advantages in that one can see electron flow and can control a number of variables instantly.



SkillsCommons: Library of Free OER

Search by Keyword

SKILLS COMMONS

ABOUT • BROWSE • SHOWCASES PARTNER WITH US • CONTACT LOGIN

Workforce Development Digital Library

FREE and OPEN Workforce Training Materials for 21st Century Employment



Browse by [industry](#), [credentials & material type](#) | [Advanced search](#)



COVID-19 Response: Get FREE and OPEN Learning Materials for [Hygiene](#) | [Workplace Safety](#) | [Infection Control](#).



Showcases

View our showcases of course material makeovers, open courseware and project outcomes.



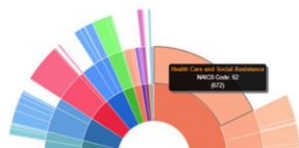
Connect

Connect with Workforce Development communities, technology partners and career services partners.



Contribute

Upload OER and workforce development materials and visit our [Support Center](#) when you need help.



Explore Workforce Development

Open Educational Resources

- Developed in partnership with local industries
- Reviewed by subject matter experts
- Focused on skills businesses need today

Search Results

Electrical Circuit

Advanced search

Results 1-10 of 993

sort by: **relevance** | newest first | oldest first

Has preview



Industry

- Manufacturing -- Miscellaneous Manufacturing (339) (121)
- Utilities -- Utilities -- Electric Power Generation, Transmission and Distribution (2211) (119)
- Developmental Education (87)
- Mining, Quarrying, and Oil and Gas Extraction -- Oil and Gas Extraction (2111) (48)
- Professional, Scientific, and Technical Services (54) (46)
- Professional, Scientific, and Technical Services -- Professional, Scientific, and Technical Services -- Architectural, Engineering, and Related Services (5413) (40)
- Manufacturing -- Machinery Manufacturing (333) (36)
- Manufacturing -- Fabricated Metal Product Manufacturing (332) (33)
- Professional, Scientific, and Technical Services -- Professional, Scientific, and Technical Services -- Other Professional, Scientific, and Technical Services (5419) (29)
- Other Services (except Public Administration) (81) (23)
- ... [View More](#)

Material Type

- Syllabus (280)
- Hybrid/Blended Course (184)
- Presentation (113)
- Reference Material (97)
- Assignment (77)
- Collection (68)
- Quiz/Test (64)
- Quality Assurance Report -- Subject Matter Expert Report (58)
- Recruitment and Outreach (57)
- Workshop and Training Material (52)

Introduction to Electrical Circuit Simulation

Simulation

Northeast State Community College

Interactive lab activity about electrical circuits.

NNCMM ELM 110 Electrical Circuits SME Course Review
Quality Assurance Report -- Subject Matter Expert Report
Truckee Meadows Community College

This is a subject matter expert review of the ELM 110 Electrical Circuits course offered Spring and Fall 2016. This course covers basic AC/DC circuit principles and practices. Students explore areas of electrical and electronic circuits including: circuit theory, components, circuit construction an . . .

ETC 103 DC Circuits Syllabus

Syllabus
Jefferson College
Study of DC Circuits

Complex Circuits Lab

Simulation
Northeast State Community College
Interactive lab activity about complex electrical circuits.

Basic Electricity

Syllabus
Itawamba Community College
Basic Electricity is the basics to understand current flow and voltages in a simple circuit and the difference in series and parallel paths. It uses Ohm's Law to solve problems for current flow and voltage drops in circuits. To be able to recognize and use electrical safety rules and precaution when . . .

AC Circuits

Syllabus
Itawamba Community College
The course covers a review of Basic Electricity and electrical safety. Introduction to the principles of Alternating Current (AC) and definitions of basic terms: sine wave, Hertz, amplitude, frequency, and period. Discussion on inductance and capacitance includes units, types, and construction, and . . .

EET 113: Electrical Circuits I

Online Course
Piedmont Technical College
EET 113: Electrical Circuits 1 - This course is a study of direct and alternating currents, covering resistance

Download the Content

Introduction to Electrical Circuit Simulation

Interactive lab activity about electrical circuits.

-  Introduction to Electrical Circuit Simulation - NECC.pdf (1 MB)
-  Introduction to Electrical Circuit Simulation - NECC.docx (1 MB)



Did you download this item? We value your feedback, and it'll only take a minute

Additional Public Access To Materials:

<https://phet.colorado.edu/en/simulation/circuit-construction-kit-dc>

Date:
2013

Primary Material Type:
Simulation

Institution:
Northeast State Community College

Subjects:
interactive, lab, simulation, electrical circuit

Industry / Occupation

Industry Sector:
Manufacturing -- Miscellaneous Manufacturing (339)

Occupation:
Production Occupations (51-0000)

Education / Instructional Information

Instructional Program:
Precision Production (48)

Credit Type:
• Credit

Credential Type:
• Diploma

Educational Level of Materials:
• 2nd Year Community College or equivalent

Language:
English (United States)

Browse all of SkillsCommons

- Projects
- Material Type
- Credential Type
- Institution
- Industry
- Industry (Wheel)

Browse this Collection

- Material Type
- Credential Type
- Institution
- Industry
- Industry (Wheel)

Statistics

- Most Popular Items
- Most Popular Material Types

Content: "Before"

Introduction to Electrical Circuit Simulation

Interactive lab activity about electrical circuits.

 Introduction to Electrical Circuit Simulation - NECC.pdf (1 MB)

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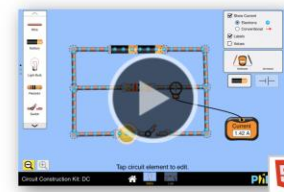
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Credential Type:
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Educational Level of Materials:
• 2nd Year Community College or equivalent



Circuit Construction Kit: DC



- Series Circuit
- Parallel Circuit
- Ohm's Law

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[EMBED](#)

ABOUT

Topics

- Series Circuit
- Parallel Circuit
- Ohm's Law
- Kirchoff's Law

Description

Experiment with an electronics kit! Build circuits with batteries, resistors, light bulbs, fuses, and switches. Determine if everyday objects are conductors or insulators, and take measurements with an ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a lifelike view.

Sample Learning Goals

- Explore basic electricity relationships.
- Explain basic electricity relationships in series and parallel circuits.
- Use an ammeter and voltmeter to take readings in circuits.
- Provide reasoning to explain the measurements and relationships in circuits.
- Build circuits from schematic drawings.
- Determine if common objects are conductors or insulators.

Version 1.1.5

▶ [FOR TEACHERS](#)

▶ [TRANSLATIONS](#)

▶ [RELATED SIMULATIONS](#)

▶ [SOFTWARE REQUIREMENTS](#)

▶ [CREDITS](#)



Original Sim and Translations

FAQs for Downloading

Frequently Asked Questions (FAQs)

[Home](#) > [Frequently Asked Questions \(FAQs\)](#)

[Support Center Home](#)

Downloading Material from SkillsCommons

Q: I downloaded a folder with an extension .imsc however, I am unable to view the contents. Is it possible to view the contents of this folder?

Answer: When downloading, moving, or sending many files, it can be convenient to first compress into a single file the set of many files. This single file is referred to as an archive or "zip" file. An IMS Common Cartridge is such an archive with an extension of "imsc". Many Learning Management Systems (LMS) can export and import a course's files in this format. To view the content of the "imsc" file, simply rename the file's extension to "zip". Your operating system should then offer a way to uncompress the file, by clicking on it, through a file menu, or tool such as Winzip on Windows and unzip on a Mac. Note that to import the content into an LMS, refer to the imsc file and not its expanded folder of files.

Q: I downloaded a zip folder but could not open any of the files?

Answer: A "zip" file is a compressed set of files that have been gathered into a single file for convenience. Some browsers are configured to download a zip file and expand the zip into a folder of files while other browsers leave the "zip" uncompressed. Given a zip file, uncompress the file, by clicking on it, through a file menu, or tool such as Winzip on Windows and unzip on a Mac. A zip can contain many types of files. Some files can be viewed simply by selecting them or double-clicking on them. Other files may be specific to an application that you must have installed before the file can be launched. For example, a file with the extension "doc" likely is intended for Microsoft Word and you will need that application installed before the file can be viewed.

Q: I downloaded a zip folder with a SCORM package in it, I am unable to view the contents. Is it possible to view the SCORM package?

Answer: SCORM, or Sharable Content Object Reference Model, is a specification for how a set of files are packaged and played. A SCORM file is really an archive or compressed set of files. To view the content of the SCORM file with the extension "zip", uncompress the file, by clicking on it, through a file menu, or tool such as Winzip on Windows and unzip on a Mac. If the file extension is not "zip", rename it to "zip" first. To run a SCORM file, you need a SCORM player, which is included with many Learning Management Systems (LMS). You can also run a SCORM file in a more limited way from your web browser by clicking on the launch HTML file, which might be named index.html, story_html5.html, or similar.

SoftChalk: An OER Makeover Tool

- You need an easy-to-use tool to bring with OER materials and build a quality learning experience
- You need tools to change content into curriculum
- SoftChalk is that easy-to-use tool that changes content into curriculum
- Today's webinar – **DESIGN ON A DIME** – will demonstrate some of the easiest ways to makeover OER.
 - With just a little bit of effort and time
 - Using very basic technology skills – no expertise required

YOU CAN CREATE A BETTER LEARNING EXPERIENCE FOR YOUR STUDENTS AND KEEP THE CONTENT AFFORDABLE

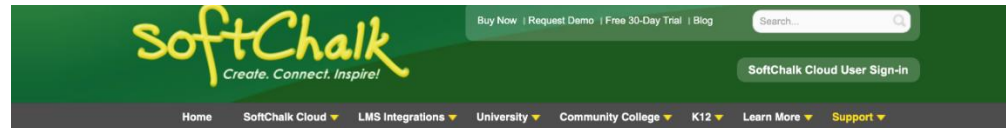
The background of the slide is a blue-tinted photograph of a classroom. In the foreground, several students are seen from behind, sitting at desks and looking towards the front of the room. In the background, a teacher is standing near a whiteboard, gesturing as if in the middle of a lesson. The overall scene is a typical classroom environment.

SoftChalk Free 30-day trial

Getting started with SoftChalk

info.softchalk.com/request-30-day-trial

SoftChalk User Guides



User Guides

Quick Links:

- [Get Started Guides](#)
- [LMS Integration Guides](#)
- [PowerPoint and Google Slides Integration Guide](#)
- [SoftChalk Create Desktop Installation Guide](#)
- [Accessibility Guide](#)
- [Enterprise SoftChalk Cloud Administrator Guide](#)
- [New Features and Enhancements](#)
- [SoftChalk Resources Guide](#)

Get Started Guides

- [SoftChalk Cloud Quick Start Guide](#) – This guide provides step-by-step instructions for setting-up your SoftChalk Cloud account, creating SoftChalk lessons, saving your lessons to the Cloud and adding links to your LMS.
- [SoftChalk Cloud Guide](#) – Complete details on using your SoftChalk Cloud account to create, manage and share digital content.
- [SoftChalk INSPIRE Quick Start Guide](#) – This guide provides step-by-step instructions for setting-up your SoftChalk INSPIRE account, creating SoftChalk lessons, saving your lessons to the Cloud and adding links to your LMS.
- [SoftChalk Create Guide](#) – Step-by-step instructions for SoftChalk Create, the content authoring program that comes with your SoftChalk Cloud account.
- [Student Guide to SoftChalk Lessons](#) – Guidelines and tips for students using SoftChalk lessons.
- [Migration to SoftChalk Cloud Guide](#) – Information for SoftChalk desktop users who are migrating content to SoftChalk Cloud.

LMS Integration Guides

The LMS integration guides below give step-by-step instructions for adding SoftChalk Cloud lesson hyperlinks and LTI links into your LMS. By using LTI links, you can capture student scores into your LMS gradebook.

These guides also include a section for LMS administrators to enable the LTI feature to work with SoftChalk Cloud LTI links.

REQUEST A LIVE
SOFTCHALK DEMO

Integrations

Using a different LMS?
[Click here.](#)

From Our Clients

Y I ♥ SoftChalk

Create a Lesson in SoftChalk

The screenshot shows the SoftChalk Cloud interface. At the top, there is a navigation bar with the SoftChalk Cloud logo, a search bar, and user options like 'Renew' and 'Logout'. Below the navigation bar, there are tabs for 'Learning Objects', 'Lessons', 'Files', 'Deleted Items', and 'Create Content'. The 'Lessons' tab is active, showing a list of lesson folders. The 'Actions' panel on the right is open, highlighting the 'Create Lesson in Create Online' and 'Create Lesson in SoftChalk Create' options. The 'Usage' panel shows a storage usage of 208.52 MB / 1.00 GB.

Showing 1 - 2 of 2 Folder(s)

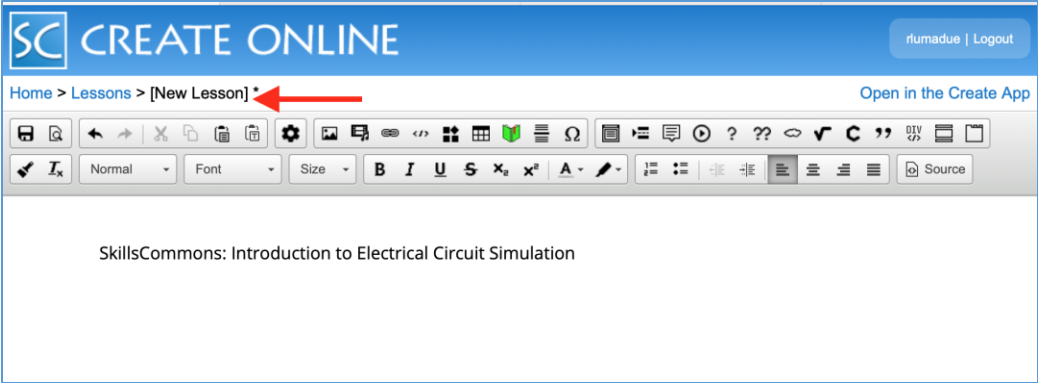
Name	Type	Privacy			
Basic Physics	lesson	Personal	↔	✎	🗑
Time Management	lesson	Personal	↔	✎	🗑
College Skills	lesson	Personal	↔	✎	🗑
Introduction to Electrical Circuit Simulation	lesson	Personal	↔	✎	🗑
Note-taking Strategies for STEM Courses	lesson	Personal	↔	✎	🗑
WISE Pathways Career Exploration Program Session 1	lesson	Personal	↔	✎	🗑

Name	Type	Privacy			
SkillsCommons Course Template	lesson	Personal	↔	✎	🗑
SkillsCommons Simulation Template	lesson	Personal	↔	✎	🗑
SkillsCommons Booster Template	lesson	Personal	↔	✎	🗑

Results Per Page: 1 | 10 | 25 | 50 | 100

[Back to top](#)

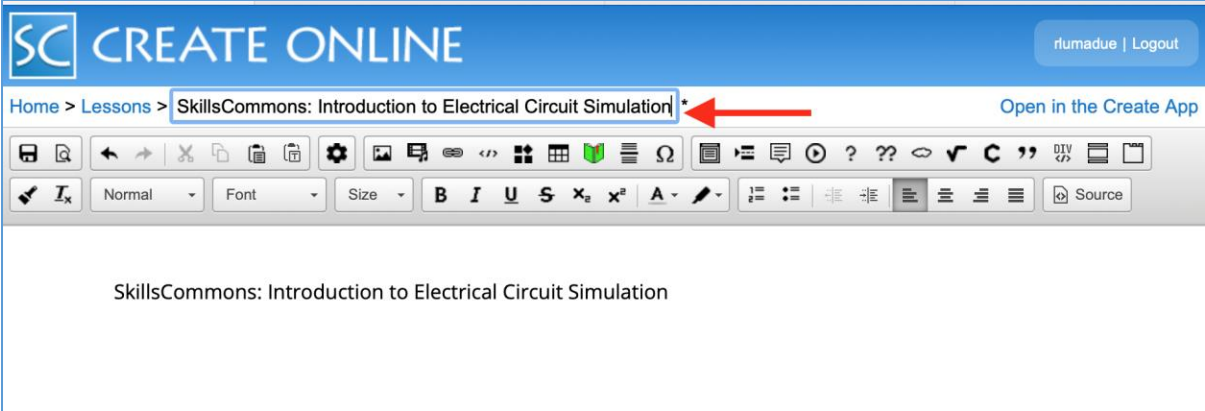
Title and Save Your Lesson



SC CREATE ONLINE rumadue | Logout

Home > Lessons > [New Lesson] * Open in the Create App

SkillsCommons: Introduction to Electrical Circuit Simulation

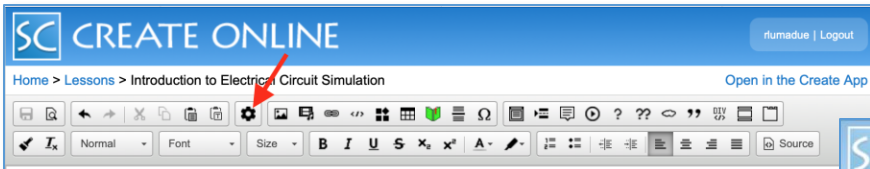


SC CREATE ONLINE rumadue | Logout

Home > Lessons > SkillsCommons: Introduction to Electrical Circuit Simulation * Open in the Create App

SkillsCommons: Introduction to Electrical Circuit Simulation

Lesson Properties Tool

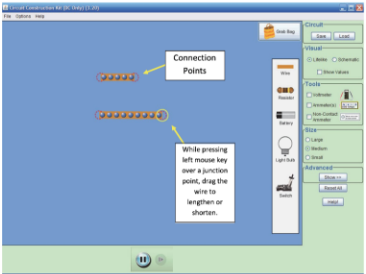


Home > Lessons > Introduction to Electrical Circuit Simulation

Circuit Construction Kit: DC

Introduction

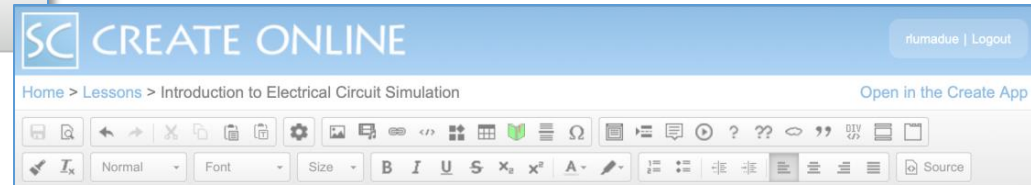
To help students visually comprehend concepts, PhET simulations animate what is invisible to the eye through the use of graphics and intuitive controls such as click-and-drag manipulation, sliders and radio buttons. In order to further encourage quantitative exploration, the simulations also offer measurement instruments including rulers, stop-watches, voltmeters and thermometers. As the user manipulates these interactive tools, responses are immediately animated thus effectively illustrating cause-and-effect relationships as well as multiple linked representations (motion of the objects, graphs, number readouts, etc.)



PhET provides fun, interactive, research-based simulations of physical phenomena. The program(s) enables students to make connections between real-life phenomena and the underlying science, deepening their understanding and appreciation of the physical world.

Topics

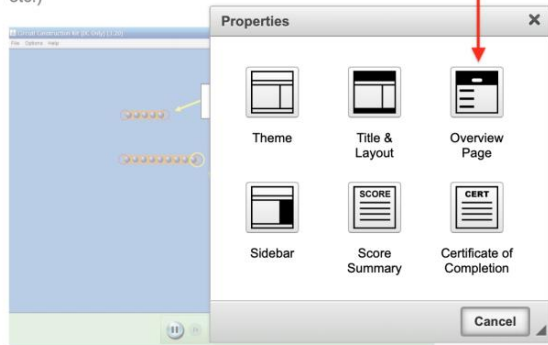
- Series Circuit
- Parallel Circuit
- Ohm's Law
- Kirchoff's Law



Circuit Construction Kit: DC

Introduction

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Theme	Title & Layout	Overview Page
Sidebar	Score Summary	Certificate of Completion

Cancel

Theme: Lesson Properties Tool

Circuit Construction Kit: DC

Introduction

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The screenshot shows a 'Properties' dialog box with a red arrow pointing to the 'Theme' option. The dialog contains the following options:

- Theme
- Title & Layout
- Overview Page
- Sidebar
- Score Summary
- Certificate of Completion

Home > Lessons > Note-taking Strategies for STEM Courses * [Open in the Create App](#)

Introduction: Note-taking Strategies for STEM Courses

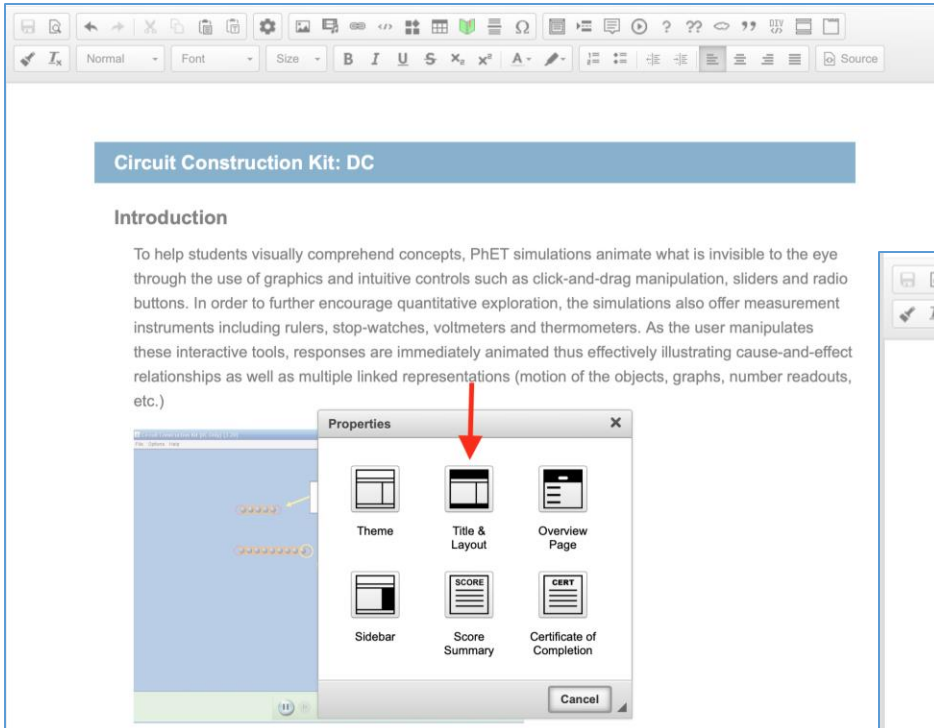
This presentation will discuss note-taking strategies for STEM Courses. A pre-test and post-test are included with this presentation, which allow you to evaluate the student's knowledge both before and after exposure to the booster. It is recommended that the post-tests be available to the students so they can take the test multiple times.

The screenshot shows a 'Theme Selection' dialog box with a dropdown menu open, listing the following themes:

- Cobalt - SkillsCommons
- Bilbao
- Black
- Brown
- Cobalt**
- Coral
- Denim
- Galliano
- Lochmara
- Maroon
- Orange
- Purple
- Red
- Sienna
- Smoke
- Teal

The main content area shows a 'Lesson Title' and a 'Contents' section with 'Page 2' selected. The heading 'Heading 2' is visible with the text: 'Spicy jalapeno bacon ipsum dolor amet qui tenderloin ut. Veggies es bonus vobis. Parsley cucumber zucchini.'

Title & Layout Lesson Properties Tool



The screenshot shows the top toolbar of the tool with various icons for editing and simulation. Below the toolbar is a blue header bar with the text "Circuit Construction Kit: DC". Underneath is the "Introduction" section, which contains a paragraph of text. A red arrow points from the "Title & Layout" icon in the Properties dialog box to the "Introduction" section.

Circuit Construction Kit: DC

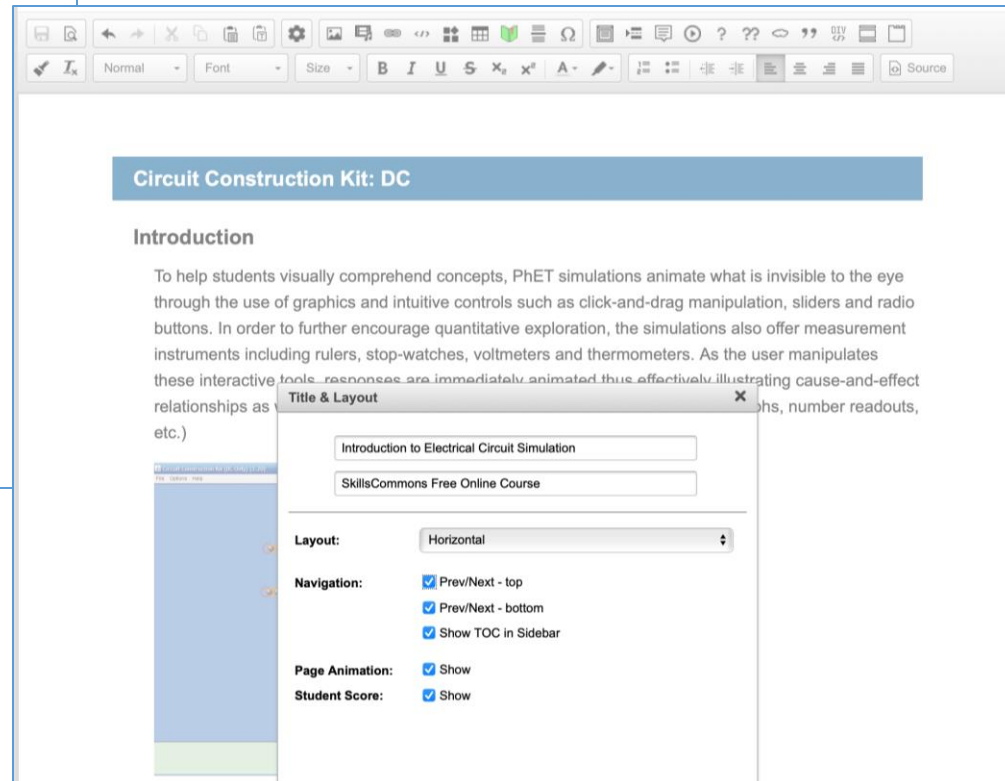
Introduction

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Properties

- Theme
- Title & Layout**
- Overview Page
- Sidebar
- Score Summary
- Certificate of Completion

Cancel



The screenshot shows the top toolbar of the tool. Below the toolbar is a blue header bar with the text "Circuit Construction Kit: DC". Underneath is the "Introduction" section, which contains a paragraph of text. A "Title & Layout" dialog box is open, showing various settings for the lesson page.

Circuit Construction Kit: DC

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Title & Layout

Introduction to Electrical Circuit Simulation

SkillsCommons Free Online Course

Layout: Horizontal

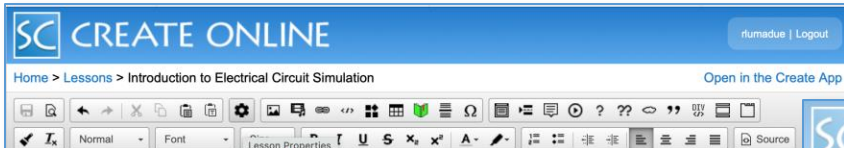
Navigation:

- Prev/Next - top
- Prev/Next - bottom
- Show TOC in Sidebar

Page Animation: Show

Student Score: Show

Overview Page: Lesson Properties Tool



CREATE ONLINE rumadue | Logout

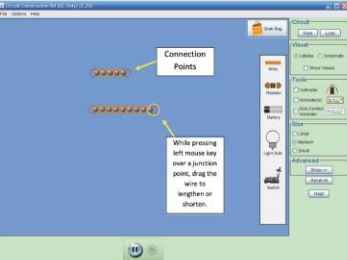
Home > Lessons > Introduction to Electrical Circuit Simulation Open in the Create App

Lesson Properties

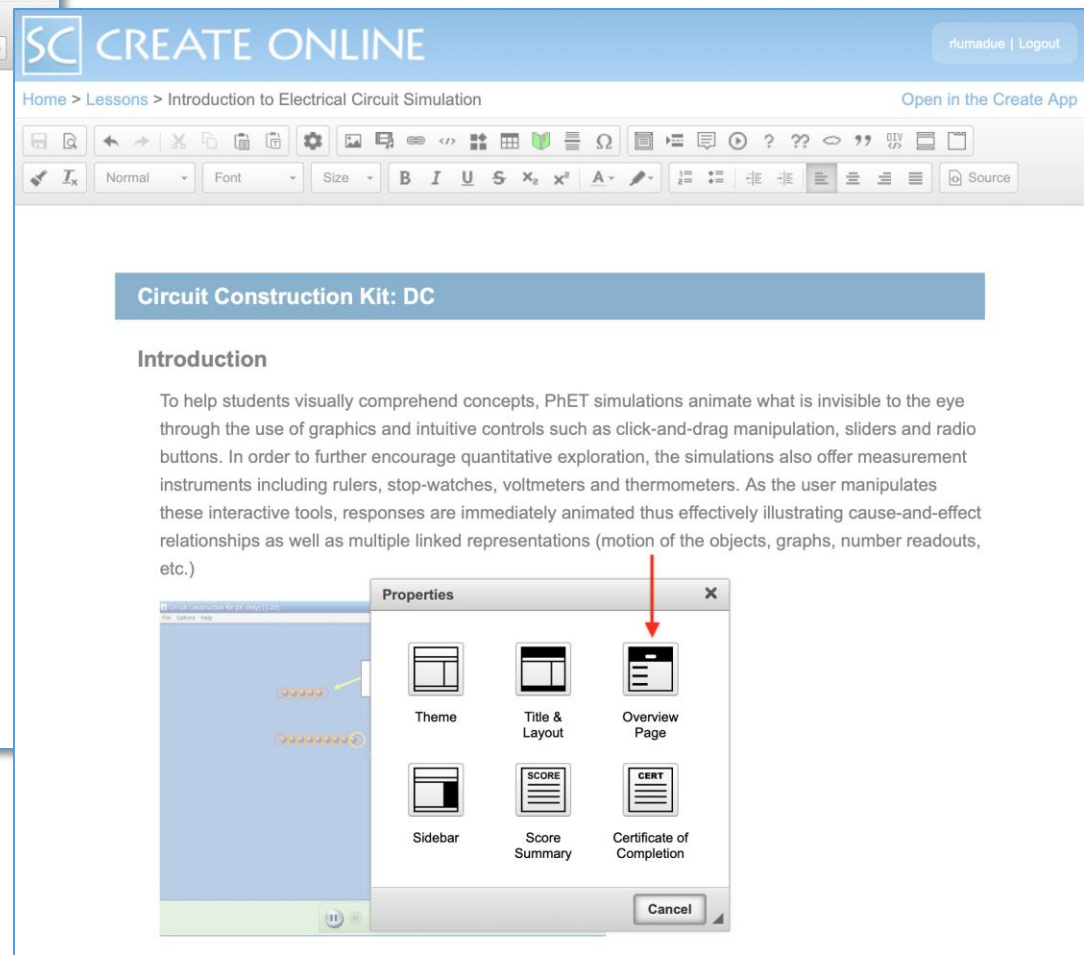
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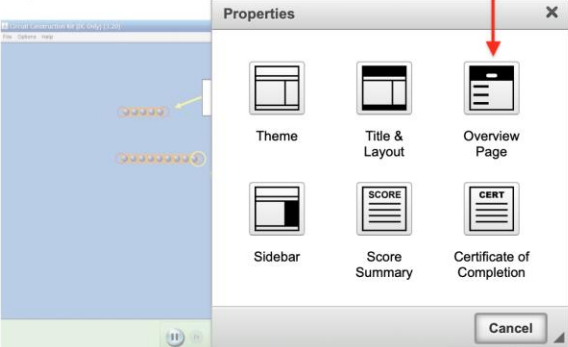
CREATE ONLINE rumadue | Logout

Home > Lessons > Introduction to Electrical Circuit Simulation Open in the Create App

Circuit Construction Kit: DC

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Properties

- Theme
- Title & Layout
- Overview Page
- Sidebar
- Score Summary
- Certificate of Completion

Cancel

Add Text and More...

CREATE ONLINE

Home > Lessons > Introduction to Electrical Circuit Simulation

Circuit Construction Kit: DC

Introduction

To help students visually comprehend concepts, PhET simulations animate what is invisible to the eye. The use of graphics and intuitive controls such as click-and-drag manipulation, sliders and buttons, in order to further encourage quantitative exploration, the simulations also offer interactive tools, responses are immediately animated thus effectively illustrating relationships as well as multiple linked representations (motion of the objects, outputs, etc.)

PHET provides an interactive laboratory environment that enables students to deepen their understanding of concepts.

Topics

- Series Circuit
- Parallel Circuit

CREATE ONLINE

Home > Lessons > Introduction to Electrical Circuit Simulation *

Lesson Properties

Introduction to Electrical Circuit Simulation

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Footer

While pressing left mouse key over a junction point, drag the wire to lengthen or shorten.

Lesson Properties: “After”

Introduction to Electrical Circuit Simulation

SkillsCommons Free Online Course

Start Lesson



Welcome to Introduction to Electrical Circuit Simulation. In this simulation students will experiment with an electronics kit! Build circuits with batteries, resistors, light bulbs, fuses, and switches. A laboratory activity is also included that will introduce the student to use of the Circuit Construction Interactive Simulation tool that will be utilized to further investigate electrical concepts and circuits.

Expert-Designed Course

This course was developed by subject matter experts, in partnership with local industries, to ensure the curriculum is aligned with the skills needed to gain employment. To ensure quality, this course was evaluated by third-party experts.

View the original submission here: [Introduction to Electrical Circuit Simulation](#)

This free and open course curriculum was developed by Northeast State Community College in Nebraska under the Innovations Moving People to Achieve Certified Training (IMPACT) Consortium as part of the U.S. Department of Labor's \$1.9 billion [Trade Adjustment Assistance Community College and Career Training \(TAACCCT\) grant program](#). More than 700 U.S. community colleges received grant funding in partnership with local industries to prepare students for employment.

Free and Open Materials

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[Click here to view Frequently Asked Questions!](#)

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Simulation and Lab Activity

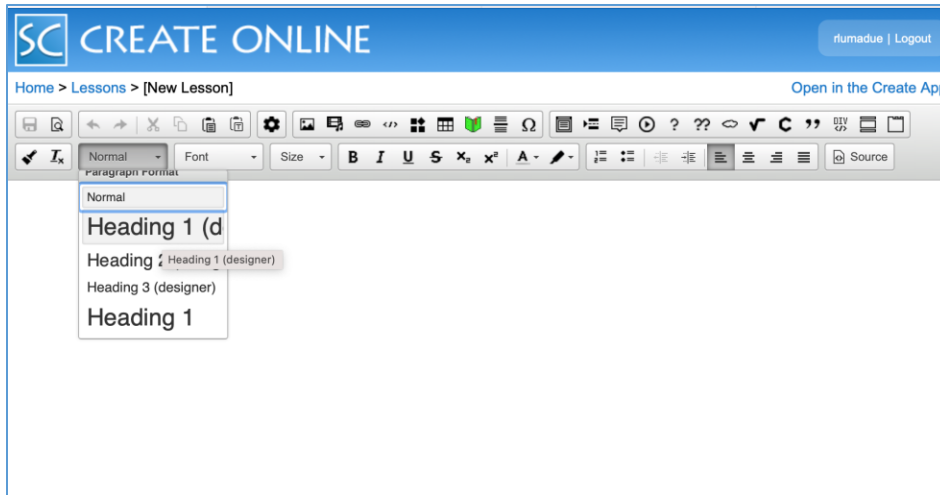
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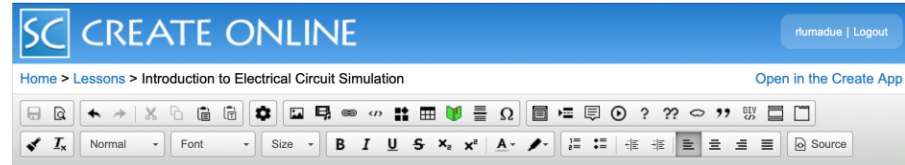


print all

Add Content to SoftChalk Lesson



The screenshot shows the SoftChalk Create Online editor interface. At the top, the logo "CREATE ONLINE" and the user name "rfumadue | Logout" are visible. Below the logo, the breadcrumb "Home > Lessons > [New Lesson]" and the link "Open in the Create App" are present. The main toolbar includes icons for undo, redo, copy, paste, and other editing functions. A dropdown menu is open, showing text formatting options: "Normal", "Heading 1 (d)", "Heading 2 (designer)", "Heading 3 (designer)", and "Heading 1".



The screenshot shows the SoftChalk Create Online editor interface for a lesson titled "Introduction to Electrical Circuit Simulation". The breadcrumb "Home > Lessons > Introduction to Electrical Circuit Simulation" and the link "Open in the Create App" are visible. The main toolbar includes icons for undo, redo, copy, paste, and other editing functions. The text "Circuit Construction Kit: DC" is displayed in a blue box.

Circuit Construction Kit: DC

Introduction

To help students visually comprehend concepts, PhET simulations animate what is invisible to the eye through the use of graphics and intuitive controls such as click-and-drag manipulation, sliders and radio buttons. In order to further encourage quantitative exploration, the simulations also offer measurement instruments including rulers, stop-watches, voltmeters and thermometers. As the user manipulates these interactive tools, responses are immediately animated thus effectively illustrating cause-and-effect relationships as well as multiple linked representations (motion of the objects, graphs, number readouts, etc.)

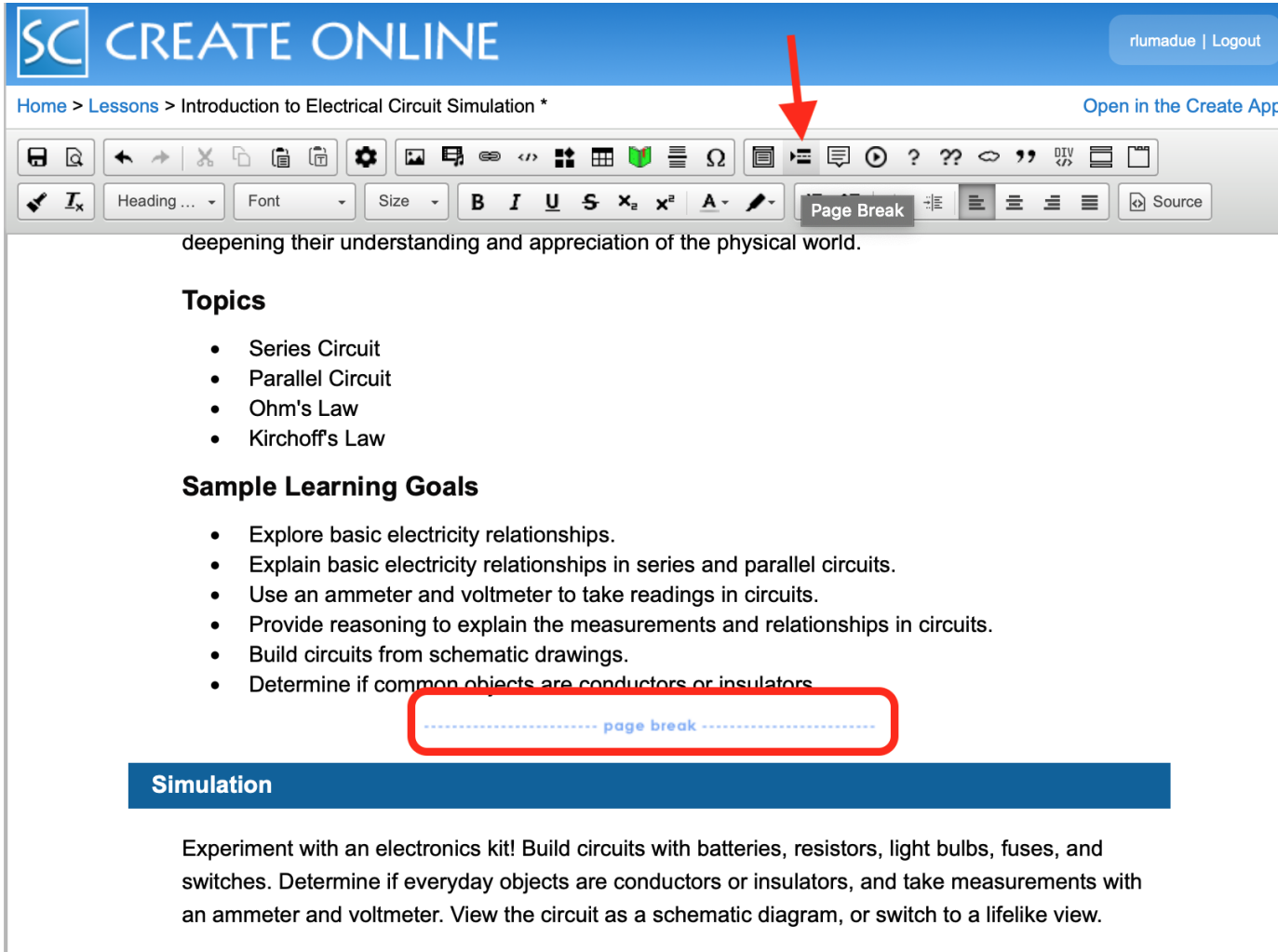


PhET provides fun, interactive, research-based simulations of physical phenomena. The program(s) enables students to make connections between real-life phenomena and the underlying science, deepening their understanding and appreciation of the physical world.

Topics

- Series Circuit
- Parallel Circuit
- Ohm's Law
- Kirchoff's Law

Insert a Page Break



The screenshot shows the SC CREATE ONLINE editor interface. At the top, there is a blue header with the SC logo and the text 'CREATE ONLINE'. To the right of the header, there is a user profile 'rumadue' and a 'Logout' button. Below the header, there is a navigation bar with 'Home > Lessons > Introduction to Electrical Circuit Simulation *' and a button 'Open in the Create App'. The main toolbar contains various icons for editing, including a 'Page Break' button which is highlighted with a red arrow. Below the toolbar, the document content is displayed. The text 'deepening their understanding and appreciation of the physical world.' is followed by a section titled 'Topics' with a bulleted list: 'Series Circuit', 'Parallel Circuit', 'Ohm's Law', and 'Kirchoff's Law'. Below this is a section titled 'Sample Learning Goals' with a bulleted list: 'Explore basic electricity relationships.', 'Explain basic electricity relationships in series and parallel circuits.', 'Use an ammeter and voltmeter to take readings in circuits.', 'Provide reasoning to explain the measurements and relationships in circuits.', 'Build circuits from schematic drawings.', and 'Determine if common objects are conductors or insulators'. A red box highlights a 'page break' indicator in the document content. At the bottom, there is a blue bar with the text 'Simulation' and a paragraph: 'Experiment with an electronics kit! Build circuits with batteries, resistors, light bulbs, fuses, and switches. Determine if everyday objects are conductors or insulators, and take measurements with an ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a lifelike view.'

Name Pages of Your Lesson

The screenshot shows the SoftChalk Create interface. A 'Page Names' dialog box is open, titled 'Page Names', with the instruction 'Name the pages as you would like them to appear in the Table of Contents'. The dialog has three input fields: 'Title Page: Overview', 'Page 1: Introduction', and 'Page 2: Simulation and Lab Activity'. Below the dialog, the lesson content is visible, including a 'Circuit Construction Kit: DC' simulation and a 'Simulation' section.

The screenshot shows the SC CREATE ONLINE interface. The page title is 'Introduction to Electrical Circuit Simulation'. The content includes a section titled 'Circuit Construction Kit: DC' with an 'Introduction' sub-section. The text reads: 'To help students visually comprehend concepts, PhET simulations animate what is invisible to the eye through the use of graphics and intuitive controls such as click-and-drag manipulation, sliders and radio buttons. In order to further encourage quantitative exploration, the simulations also offer measurement instruments including rulers, stop-watches, voltmeters and thermometers. As the user manipulates these interactive tools, responses are immediately animated thus effectively illustrating cause-and-effect relationships as well as multiple linked representations (motion of the objects, graphs, number readouts, etc.)'. Below the text is a screenshot of the PhET simulation interface, showing a circuit diagram with a battery and a light bulb, and a text box that says: 'While pressing left mouse key over a junction point, drag the wire to lengthen or shorten.'

Page Names: “After”

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Introduction to Electrical Circuit Simulation
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Simulation and Lab Activity

Circuit Construction Kit: DC

Introduction

To help students visually comprehend concepts, PhET simulations animate what is invisible to the eye through the use of graphics and intuitive controls such as click-and-drag manipulation, sliders and radio buttons. In order to further encourage quantitative exploration, the simulations also offer measurement instruments including rulers, stop-watches, voltmeters and thermometers. As the user manipulates these interactive tools, responses are immediately animated thus effectively illustrating cause-and-effect relationships as well as multiple linked representations (motion of the objects, graphs, number readouts, etc.)



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Topics

- Series Circuit
- Parallel Circuit
- Ohm's Law
- Kirchoff's Law


Sample Learning Goals

- Explore basic electricity relationships.
- Explain basic electricity relationships in series and parallel circuits.
- Use an ammeter and voltmeter to take readings in circuits.
- Provide reasoning to explain the measurements and relationships in circuits.
- Build circuits from schematic drawings.
- Determine if common objects are conductors or insulators.

[Next](#)

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Upload File(s) to SoftChalk for use in Lesson

The screenshot displays the SoftChalk Cloud user interface. At the top, there is a navigation bar with the SoftChalk Cloud logo, a search bar, and a user profile section. Below the navigation bar, there are tabs for 'Learning Objects', 'Lessons', 'Files', 'Deleted Items', and 'Create Content'. The 'Files' tab is currently selected, showing a list of files and folders. On the right side, there is an 'Actions' panel with several options: 'Upload Files', 'Create Folder', 'Sort Folders', 'Collapse All', and 'Expand All'. A red arrow points to the 'Upload Files' option. Below the 'Actions' panel, there is a 'Usage' section showing a progress bar and the text '208.51 MB / 1.00 GB'.

softChalk CLOUD

flumadue (expires in days) Renew | Logout Search Repository Advanced Search

Home My Content SoftChalk Share ScoreCenter Account Get Started Support

Learning Objects Lessons Files Deleted Items Create Content

Showing 1 - 1 of 1 Folder(s)

Files

Name	Type	Privacy			
Booster_Brief_Overview.pdf	file	Personal			
1.1.Who_Are_You_Really?.pdf	file	Personal			
7.3.Communicating_with_Instructors.pdf	file	Personal			
1.4.What_Is_College_Really?.pdf	file	Personal			
BasicPhysicaPostTest.zip	file_package	Personal			
BasicPhysicaPreTest.zip	file_package	Personal			
BasicPhysicaBooster.zip	file_package	Personal			
TimeManagementforExerciseSciencesPostTest_2.zip	file_package	Personal			
TimeManagementforExerciseSciencesPreTest.zip	file_package	Personal			
Boosters - What are they - image.jpg	image	Personal			
NotetakingStrategiesforSTEMCoursesPosttest.zip	file_package	Personal			
Screen_Shot_2021-01-29_at_2.54.32_PM.png	image	Personal			
Screen_Shot_2021-01-29_at_2.24.46_PM.png	image	Personal			
NotetakingStrategiesforSTEMCoursesPretest.zip	file_package	Personal			
NoteTakingStrategiesForSTEMCoursesBooster.zip	file_package	Personal			
WP_Session_1_Welcome_Presentation_Dec_2018.pdf	file	Personal			
Introduction_to_Electrical_Circuit_Simulation_-_1-27-2021.pdf	file	Personal			
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Welcome_to_the_SkillsCommons_Content_Preview.pdf	file	Personal			
Assignment_1_Module_1.docx	file	Personal			
Assignment_2_Module_1.docx	file	Personal			
Assignment_3_Module_1.docx	file	Personal			
COL_103_Scavenger_Hunt.docx	file	Personal			
Discussion_1_Module_1.docx	file	Personal			
Discussion_2_Module_1.docx	file	Personal			

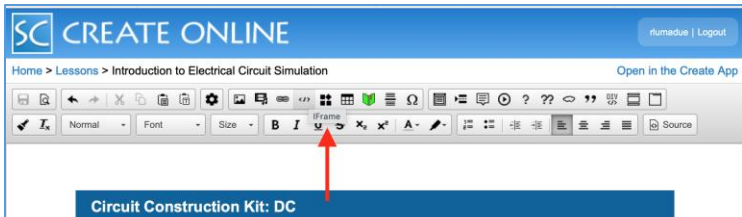
Actions

- Upload Files
- Create Folder
- Sort Folders
- Collapse All
- Expand All

Usage

208.51 MB / 1.00 GB

Add an iFrame to Embed a Resource

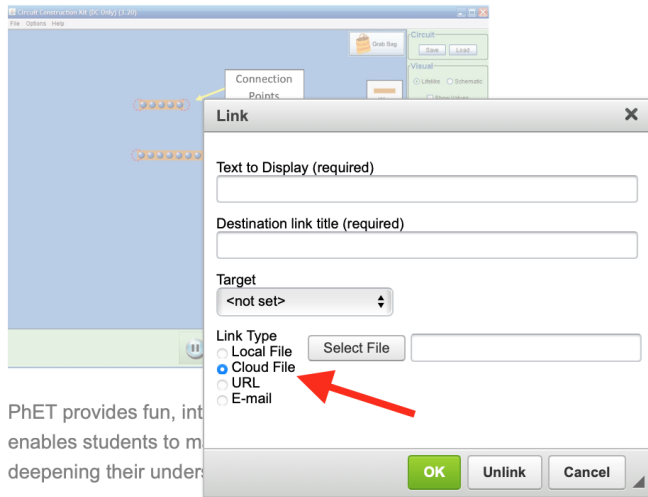


Introduction

To help students visualize through the use of grab buttons. In order to further instruments including these interactive tools, relationships as well as etc.)



PhET provides fun, interactive experiences that enable students to make sense of their world by deepening their understanding of science concepts.

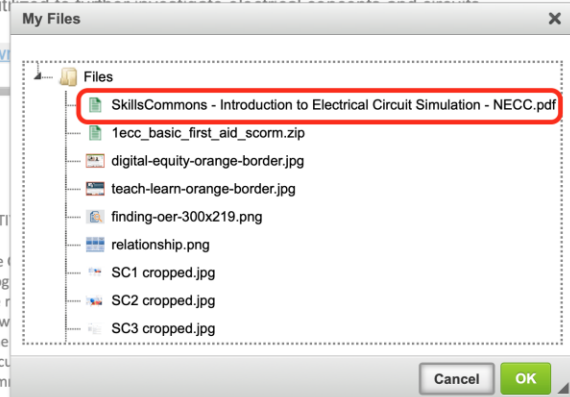


PhET provides fun, interactive experiences that enable students to make sense of their world by deepening their understanding of science concepts.

Lab Activity

This laboratory activity will introduce the student to use of the Circuit Construction Interactive Simulation tool that will be utilized to further investigate electrical circuits and circuits.

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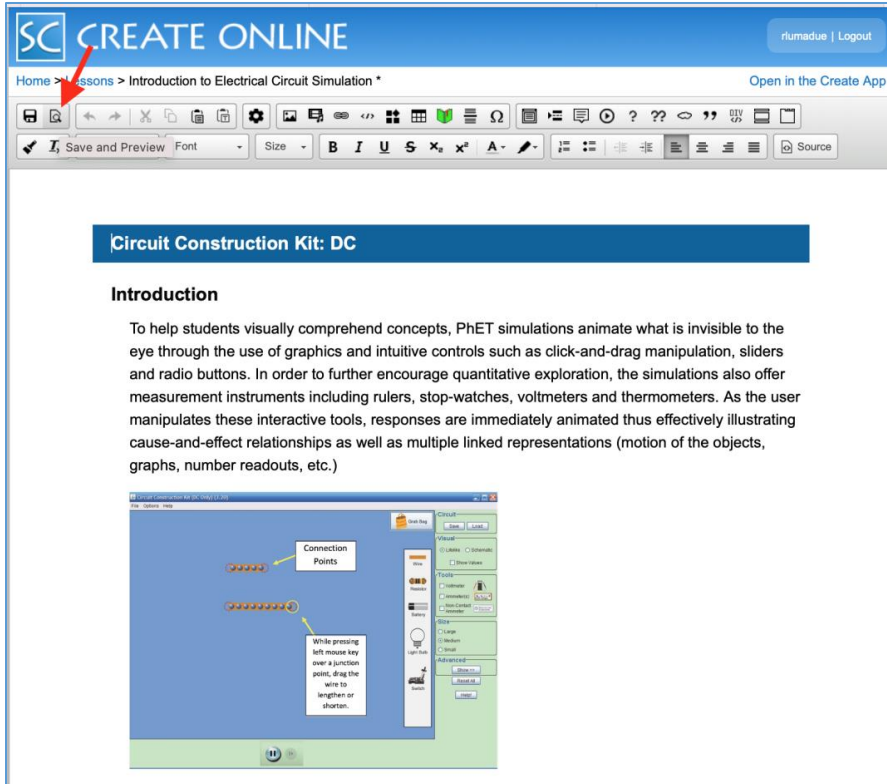
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1. When a student first opens the program they will see a blank screen (Figure 1-1) with options on the side. These options are the tools that you will be utilizing are similar to what you would be using if testing circuits on a circuit board. The primary difference between a circuit board and the simulation is that the simulation is two dimensional, but also has advantages in that one can

iFrame with Embedded Resource: “After”



CREATE ONLINE rumadue | Logout

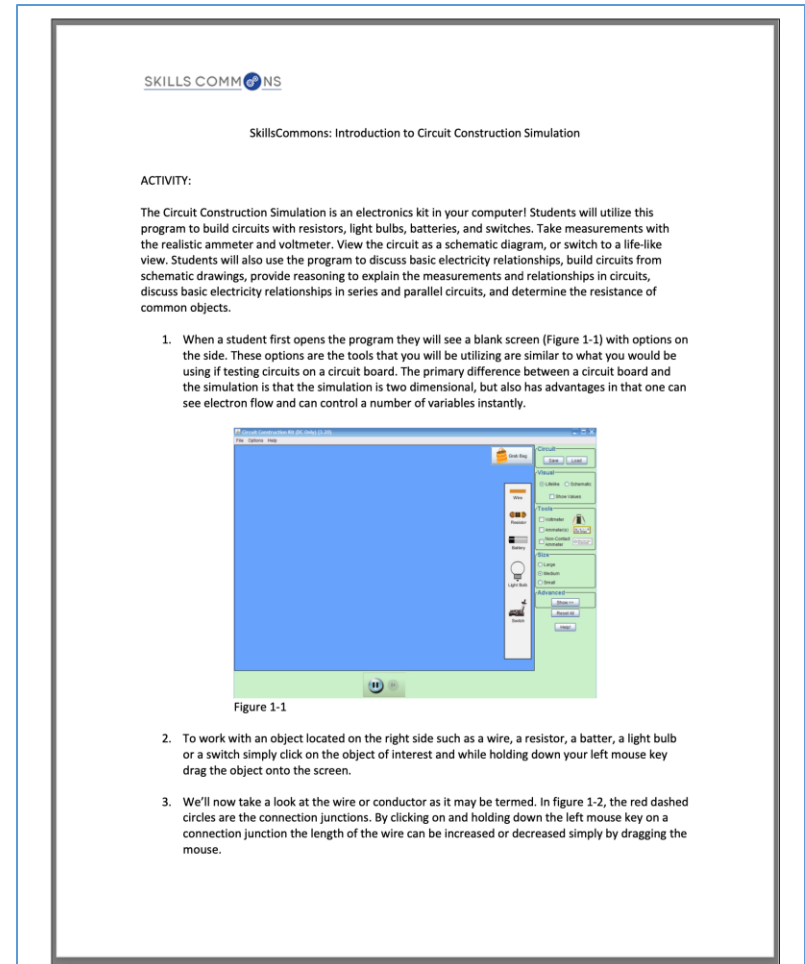
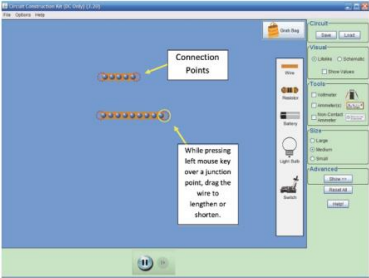
Home > Lessons > Introduction to Electrical Circuit Simulation * Open in the Create App

Save and Preview Font Size B I U S x_o x_o A Source

Circuit Construction Kit: DC

Introduction

To help students visually comprehend concepts, PhET simulations animate what is invisible to the eye through the use of graphics and intuitive controls such as click-and-drag manipulation, sliders and radio buttons. In order to further encourage quantitative exploration, the simulations also offer measurement instruments including rulers, stop-watches, voltmeters and thermometers. As the user manipulates these interactive tools, responses are immediately animated thus effectively illustrating cause-and-effect relationships as well as multiple linked representations (motion of the objects, graphs, number readouts, etc.)



SKILLS COMMONS

SkillsCommons: Introduction to Circuit Construction Simulation

ACTIVITY:

The Circuit Construction Simulation is an electronics kit in your computer! Students will utilize this program to build circuits with resistors, light bulbs, batteries, and switches. Take measurements with the realistic ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a life-like view. Students will also use the program to discuss basic electricity relationships, build circuits from schematic drawings, provide reasoning to explain the measurements and relationships in circuits, discuss basic electricity relationships in series and parallel circuits, and determine the resistance of common objects.

1. When a student first opens the program they will see a blank screen (Figure 1-1) with options on the side. These options are the tools that you will be utilizing are similar to what you would be using if testing circuits on a circuit board. The primary difference between a circuit board and the simulation is that the simulation is two dimensional, but also has advantages in that one can see electron flow and can control a number of variables instantly.

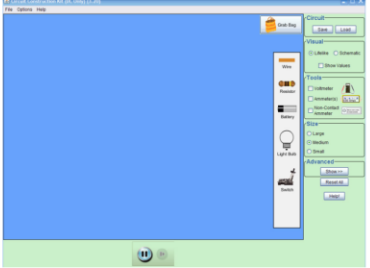


Figure 1-1

2. To work with an object located on the right side such as a wire, a resistor, a battery, a light bulb or a switch simply click on the object of interest and while holding down your left mouse key drag the object onto the screen.
3. We'll now take a look at the wire or conductor as it may be termed. In figure 1-2, the red dashed circles are the connection junctions. By clicking on and holding down the left mouse key on a connection junction the length of the wire can be increased or decreased simply by dragging the mouse.

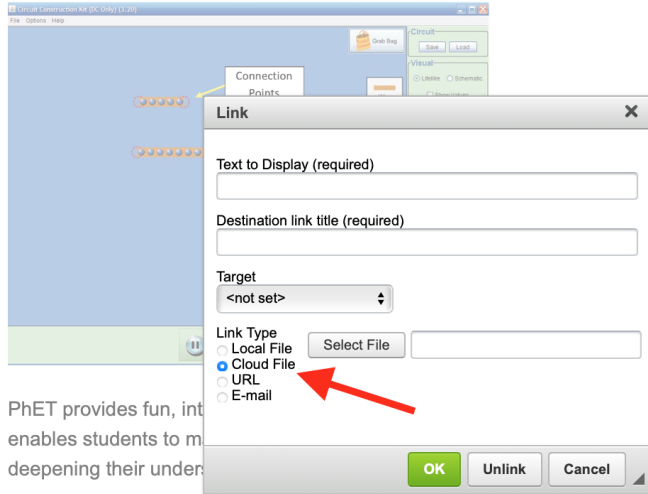
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Circuit Construction

Introduction

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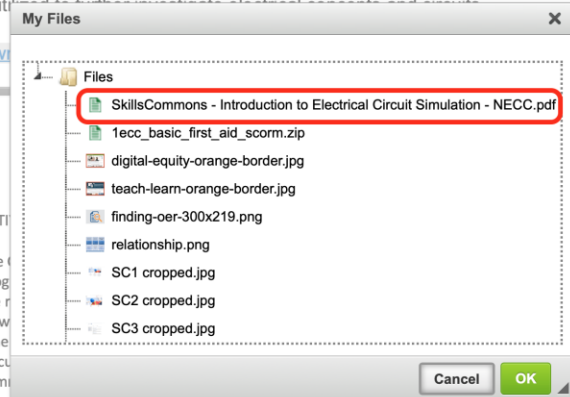


PhET provides fun, interactive simulations that enable students to manipulate variables and deepen their understanding of concepts.

Lab Activity

This laboratory activity will introduce the student to use of the Circuit Construction Interactive Simulation tool that will be utilized to further investigate electrical circuits and circuits.

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ACT

The program provides the view of the schedule discussion

utilize this simulations with a life-like circuits from circuits, instance of

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Link to a File Uploaded to SoftChalk

Link

Text to Display (required)
Click here to download a copy of the Lab Activity

Destination link title (required)
Click here to download a copy of the Lab Activity

Target
New Window (_blank)

Link Type
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 Cloud File
 URL
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Home > Lessons > Introduction to Electrical Circuit Simulation * Open in the Create App

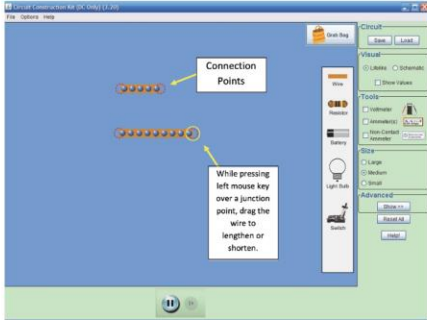
Save Undo Redo Copy Paste Settings Help

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Link to a File Uploaded to SoftChalk: “After”

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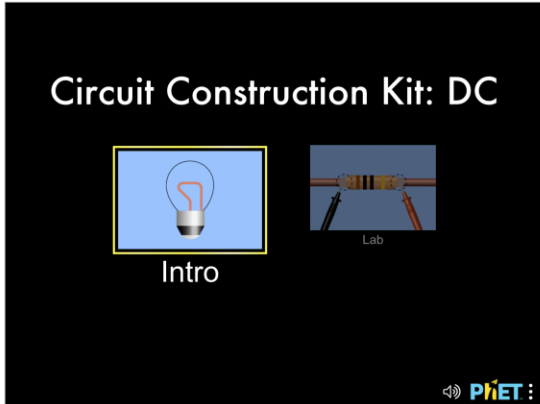
SkillsCommons: Introduction to Electrical Circuit Simulation
SkillsCommons Free Online Course

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Simulation and Lab Activity

Simulation

Experiment with an electronics kit! Build circuits with batteries, resistors, light bulbs, fuses, and switches. Determine if everyday objects are conductors or insulators, and take measurements with an ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a lifelike view.



Circuit Construction Kit: DC
Intro Lab
PHET

Lab Activity

This laboratory activity will introduce the student to use of the Circuit Construction Interactive Simulation tool that will be utilized to further investigate electrical concepts and circuits.

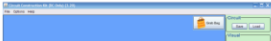
[Click here to download a copy of the Lab Activity](#)

SkillsCommons: Introduction to Circuit Construction Simulation

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Embed Code for Simulation

Introduction to Electrical Circuit Simulation

Interactive lab activity about electrical circuits.

Introduction to Electrical Circuit Simulation - NECC.pdf (1 MB)

Introduction to Electrical Circuit Simulation - NECC.docx (1 MB)

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Additional Public Access To Materials:

<https://phet.colorado.edu/en/simulation/circuit-construction-kit-dc>

Date:

2013

Primary Material Type:

Simulation

Institution:

Northeast State Community College

Subjects:

interactive, lab, simulation, electrical circuit

Industry / Occupation

Industry Sector:

Manufacturing -- Miscellaneous Manufacturing (339)

Occupation:

Production Occupations (51-0000)

Education / Instructional Information

Instructional Program:

Precision Production (48)

Credit Type:

- Credit

Credential Type:

- Diploma

Educational Level of Materials:

- 2nd Year Community College or equivalent

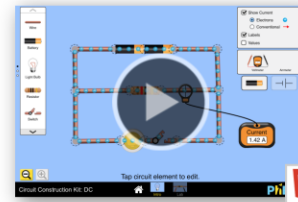
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SIMULATIONS T

Circuit Construction Kit: DC



- Series Circuit
- Parallel Circuit
- Ohm's Law

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```

Use this HTML to embed a running copy of this simulation. You can change the width and height of the embedded simulation by changing the "width" and "height" attributes in the HTML.

Embed an image that will launch the simulation when clicked

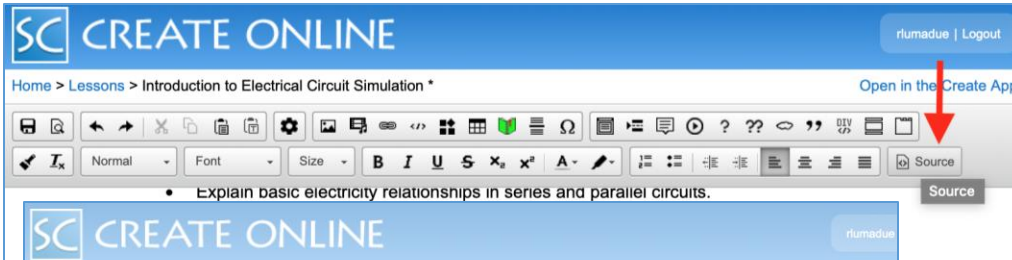
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<div style="position: relative; width: 300px; height: 200px;"><a href="https://phet.colorado.edu/sims/html/circuit-construction-kit-dc/latest/circuit-construction-kit-dc_en.html" style="text-
```

Use this HTML code to display a screenshot with the words "Click to Run".



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ations

Embed Code for Simulation



CREATE ONLINE

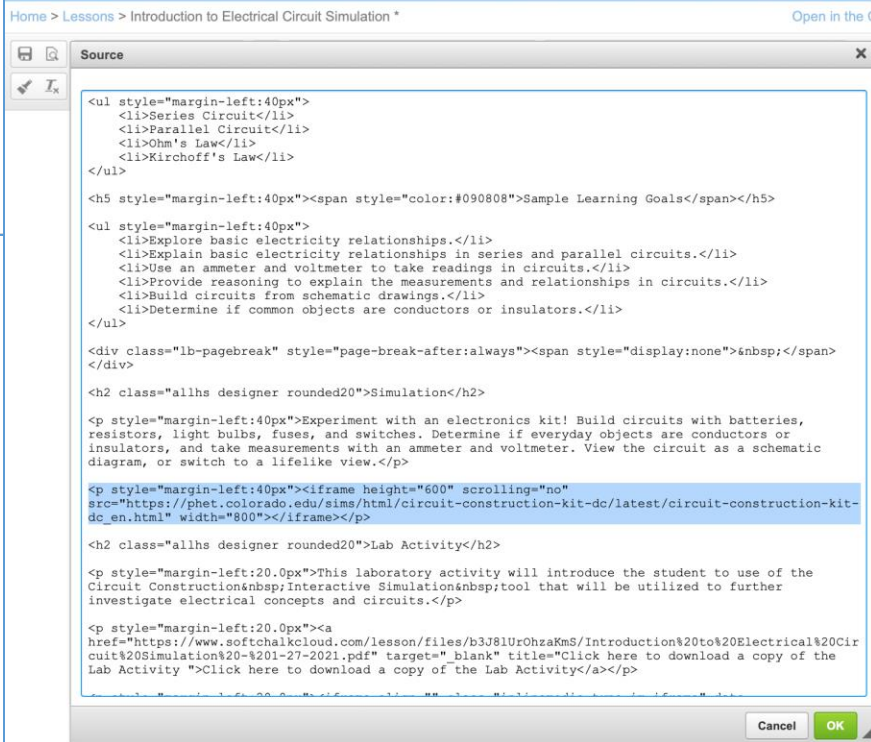
rumadue | Logout

Home > Lessons > Introduction to Electrical Circuit Simulation *

Open in the Create App

Source

- Explain basic electricity relationships in series and parallel circuits.



CREATE ONLINE

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Home > Lessons > Introduction to Electrical Circuit Simulation *

Open in the C

Source

```
<ul style="margin-left:40px">
  <li>Series Circuit</li>
  <li>Parallel Circuit</li>
  <li>Ohm's Law</li>
  <li>Kirchoff's Law</li>
</ul>

<h5 style="margin-left:40px"><span style="color:#090808">Sample Learning Goals</span></h5>

<ul style="margin-left:40px">
  <li>Explore basic electricity relationships.</li>
  <li>Explain basic electricity relationships in series and parallel circuits.</li>
  <li>Use an ammeter and voltmeter to take readings in circuits.</li>
  <li>Provide reasoning to explain the measurements and relationships in circuits.</li>
  <li>Build circuits from schematic drawings.</li>
  <li>Determine if common objects are conductors or insulators.</li>
</ul>

<div class="lb-pagebreak" style="page-break-after:always"><span style="display:none">&nbsp;</span>
</div>

<h2 class="alhs designer rounded20">Simulation</h2>

<p style="margin-left:40px">Experiment with an electronics kit! Build circuits with batteries, resistors, light bulbs, fuses, and switches. Determine if everyday objects are conductors or insulators, and take measurements with an ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a lifelike view.</p>


<p style="margin-left:40px"><iframe height="600" scrolling="no"
src="https://phet.colorado.edu/sims/html/circuit-construction-kit-dc/latest/circuit-construction-kit-dc_en.html" width="800"></iframe></p>

<h2 class="alhs designer rounded20">Lab Activity</h2>

<p style="margin-left:20.0px">This laboratory activity will introduce the student to use of the Circuit Construction Interactive Simulation tool that will be utilized to further investigate electrical concepts.</p>

<p style="margin-left:20.0px"><a href="https://www.softchalkcloud.com/lesson/files/b3381Ur0hzaKMS/Introduction%20to%20Electrical%20Circuit%20Simulation%20-%201-27-2021.pdf" target="blank" title="Click here to download a copy of the Lab Activity">Click here to download a copy of the Lab Activity</a></p>
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Cancel OK



CREATE ONLINE

rumadue | Logout

Home > Lessons > Introduction to Electrical Circuit Simulation *

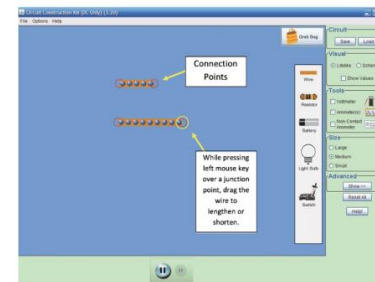
Open in the Create App

Source

Circuit Construction Kit: DC

Introduction

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Embedded Simulation with Activity: “After”

Contents

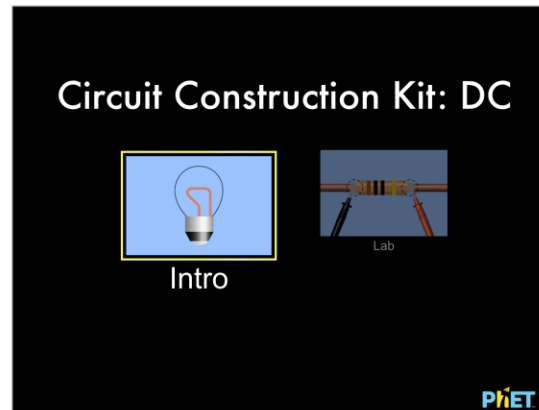
Overview

Introduction

Simulation and Lab Activity

Simulation

Experiment with an electronics kit! Build circuits with batteries, resistors, light bulbs, fuses, and switches. Determine if everyday objects are conductors or insulators, and take measurements with an ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a lifelike view.



Lab Activity

This laboratory activity will introduce the student to use of the Circuit Construction Interactive Simulation tool that will be utilized to further investigate electrical concepts and circuits.

[Click here to download a copy of the Lab Activity](#)

Introduction to Circuit Construction Simulation

ACTIVITY:

The Circuit Construction Simulation is an electronics kit in your computer! Students will utilize this program to build circuits with resistors, light bulbs, batteries, and switches. Take measurements with the realistic ammeter and voltmeter. View the circuit as a schematic diagram, or switch to a life-like view. Students will also use the program to discuss basic electricity relationships, build circuits from schematic drawings, provide reasoning to explain the measurements and relationships in circuits, discuss basic electricity relationships in series and parallel circuits, and determine the resistance of common objects.

1. When a student first opens the program they will see a blank screen (Figure 1-1) with options on the side. These options are the tools that you will be utilizing are similar to what you would be using if testing circuits on a circuit board. The primary difference between a circuit board and the simulation is that the simulation is two dimensional, but also has advantages in that one can see electron flow and can control a number of variables instantly.



Edit Lesson Properties

Lessons: SkillsCommons: Introduction to Electrical Circuit Simulation [Preview](#)

SkillsCommons:
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SkillsCommons Free Online Course
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Name: SkillsCommons: Introduction to Electrical Circuit Simulation
Owner: [rlumadue](#)
Type: lesson
Created: Jan 27, 2021 10:11 PM GMT
Revision: Apr 14, 2021 03:11 PM GMT
SoftChalk Version: 11
File Size: 4.43 MB
Rating: ★★★★★ 0 vote(s)
Description: Interactive lab activity about electrical circuits.
Subject(s): Engineering, Industrial
Grade Level(s): Undergraduate, Grade 12, Grade 11
Keyword(s): interactive, lab, simulation, electrical circuit
Views: 147
Downloads: 21
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Launch in new window

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```

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interactive, lab, simulation, electrical circuit
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Introduction to Electrical Circuit Simulation

SkillsCommons Free Online Course

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Owner: [rlumada](#)
Type: lesson
Created: Jan 27, 2021 10:11 PM GMT
Revised: Feb 11, 2021 07:27 PM GMT
SoftChalk Version: 11
File Size: 4.44 MB

Rating: ★★★★★ 0 vote(s)

Description: No Description
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Grade Level(s):
Keyword(s): No Keywords
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```

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College Skills: Module 1
SkillsCommons Free Online Course

< 1 of 17 > Score: 0 of 270

Contents

- Overview
- Module 1: College Experience**
- Module 1: College Experience
- Objectives
- Lesson 1: Campus Resources
 - Textbook Reading: "What is College, Really?"
 - Lesson 1: Reinforcement
 - Activity: Scavenger Hunt
- Lesson 2: Communication and College
 - Presentation: Communication Skills for Online Learning
 - Textbook Reading: "Communicating with Instructors"
 - Lesson 2: Reinforcement
 - Activity: Instructor and Classmate Communication
- Lesson 3: College Major Exploration
 - Presentation: Educational Planning
 - Textbook Reading: Who Are You, Really?
 - Video: "I realized it was OK to change my major"
 - College Major Quiz
 - Lesson 3: Reinforcement
 - Activity: Determining a Major

Module 1: College Experience



Objectives

Students will be able to:



- Identify campus resources and support services and explain the function of each.
- Appropriately use all forms of communication with faculty, staff and other students.
- Explore potential college majors and apply choices to choosing a college curriculum.

Orienting Questions

- What campus resources and support services are available and what services do each provide?
- What are the forms of communication available on campus and when are they used?
- How can college majors and the appropriate college curriculum be determined and how do your values affect your choices.

[Next](#)

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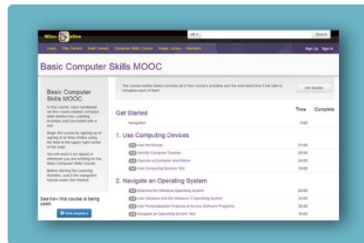
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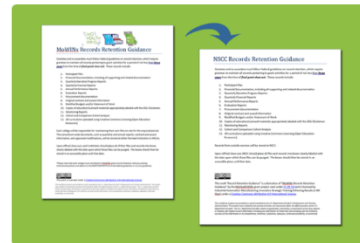
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A blue-tinted background image of a classroom. In the foreground, the backs of several students' heads and shoulders are visible as they sit at desks. In the background, a male instructor in a suit stands near a desk, gesturing with his hands as if speaking to the class. A laptop is open on the desk in front of him.

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