Big Idea *The electromagnetic force produces both electricity and magnetism.*

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| **Science 7 - Electricity DLRC Resources October 2018** | |
| 333.79 POW | Power up [kit]: generating electricity. [Burnaby, B.C.] : assembled by Burnaby School District, 2016. Kit contains the following titles: Electricity / Graham Peacock -- Magnetism / Joseph Midthun -- Electricity / Joseph Midthun -- Power up! : a visual exploration of energy / Shaker Paleja -- Brilliant! : shining a light on sustainable energy / Michelle Mulder -- Wind energy: blown away! / Amy S. Hansen -- Using Earth's underground heat / Nancy White -- Energy from wind : wind farming / Megan Kopp -- Energy from Earth's core : geothermal energy / James Bow -- Energy from nuclear fission : splitting the atom / Nancy Dickmann -- Fracking : fracturing rock to reach oil and gas underground / Nancy Dickmann -- Energy from living things : biomass energy / Rachel Stuckey -- Energy from the sun : solar power / James Bow. Poster: World Book explains: what are renewable sources of energy?. Teacher's guide: Conservation of energy: physical science (energy). Grades: 7. The books in this kit explain how electricity is generated, including renewable and nonrenewable sources of energy. |
| 500 NLS GR7 | Nelson science 7 [kit]: physics and Earth/space. (Series: Nelson science). [Burnaby, B.C.] : assembled by Burnaby School District, 2018.  Kit contains: 14 identical student books (125 pages: colour illustrations; 28 cm.), 2 teacher's guides (1 copy each of 2 titles). Grades: 7. "The Nelson science series is one of a suite of Nelson resources designed for the BC curriculum. Nelson science fully meets the goals and rationale of the curriculum and addresses all the learning standards and big ideas."--Page [4] of Resource overview.  Electricity and magnetism: "In this unit, students inquire into electricity and magnetism. They construct meaning about the relationship between electricity and magnetism and investigate the different ways that electricity is generated and used."--Page 12 of teacher's resource. |
| 502.84 NEU CUR | NeuLog current logger sensors [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit includes the following items: NeuLog current logger sensor (6 copies). The NeuLog logger sensor setup kit is available separately from the DLRC. The setup kit is required for all experiments with NeuLog logger sensors. Grades: 7 8 9 10 11 12. "The NeuLog current sensor can be used for any science experiment which utilizes current readings. It is used in the fields of Physics, Electronics, Chemistry, Biology, etc." --Page [1] of teacher's guide. |
| 502.84 NEU SET | NeuLog logger sensor setup kit [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit includes the following items: NeuLog USB module (1 copy) -- NeuLog viewer graphic colour display (2 copies) -- NeuLog battery module (8 copies) -- NeuLog Wi-Fi communication module (6 copies) -- USB charging station (2 copies) -- power cord (2 copies) -- USB cable (2 copies). The setup kit is required for all experiments with NeuLog sensor loggers. Individual sensor logger kits may be borrowed separately from the DLRC. This kit does not contain any sensor loggers. Grades: 7 8 9 10 11 12. The setup kit includes USB, viewer display, Wi-Fi and battery modules, which provide a base to which various sensors can be attached. |
| 530 SIM | Simple explanations of complex ideas [kit]: physics. [Burnaby, B.C.] : assembled by Burnaby School District, 2018. Kit contains the following titles: Electromagnetism for babies -- Newtonian physics for babies -- General relativity for babies -- Optical physics for babies. Grades: 6 7. Don't let the name fool you! These books are not for babies. The simple text and illustrations in these board books describe physics concepts. |
| 537 DIS | Discovering electricity [kit]. Newmarket, Ont. : SI Manufacturing Ltd., [2012]. This kit includes the following title: Electricity / Daniel N. Niesing. Grades 3 4 5 6 7. This kit includes contains bulbs, switches, motors and other hands-on materials to show electrical concepts and the electrical properties of matter. The teacher's guide provides instructions for simple hands-on experiments. |
| 537 ELC | Electricity [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2012. Kit contains the following titles: Science projects about electricity and magnets / Robert Gardner -- Experimenting with batteries, bulbs and wires / Alan Ward -- Blinkers and buzzers : building and experimenting with electricity and magnetism / Bernie Zubrowski -- Electricity and magnetism / Terry Jennings -- The young scientist investigates electricity and magnetism / Terry Jennings -- Exploring electricity / Ed Catherall -- Electricity / Wendy Baker, Andrew Haslam -- Electricity / Steve Parker -- Science & technology 6, Electricity : energy and control / Steve Campbell -- Electrical connections / Maureen Allen -- Electrically charged : the complete guide to teaching elementary electricity / Nancy Moore -- Using electricity / Angela Royston -- Conductors and insulators / Angela Royston -- What is electromagnetism? / Lionel Sandner -- What is electricity? / Ronald Monroe -- Dictionary of forces, matter, and energy / Leslie Garrett. Teacher's guides: Science & technology 6, Electricity: teacher's guide / Jackie Dulson, Randi Solomon -- Hands-on science: electricity / Jennifer Lawson [and 7 others]. Grades: 6. A collection of non-fiction books on electricity. Includes teacher's guides, activities, and experiments. |
| 537 ELE | Electricity [kit]. This kit contains the following title: Electricity / Rebecca L. Johnson. Washington, DC: National Geographic, c2006 (6 copies). Grades: 6. A look at electricity, what electricity is, how it is created and how it is used to power many things. |
| 537 TUR | Turn it on! [kit]: Pan-Canadian Science Place. Markham, Ont.: Scholastic Canada, c2005. This kit contains the following titles: Turn it on! / Pan-Canadian Science Place team, Gary Cross ... [et al.] (30 copies). Teacher's guide: Turn it on! : teacher's guide / Pan-Canadian Science Place team, Gary Cross ... [et al.]. B.C. ed. (1 copy). Grades: 6. A Canadian science program on electricity developed by Canadian educators, matched to the B.C. curriculum. Motivates students while building their understanding of key concepts through hands-on explorations Provides teachers with practical information on teaching science, assessment strategies, and tools, including rubrics and checklists. |
| 621.3815 ELE | Electronic snap circuits [kit]. Wheeling, Ill.: Elenco, [2017]. Up to 90 electronic circuit components. Kit contains the following titles: Teacher guide for Electronic snap circuits : hands-on program for basic electricity and electronics -- Student guide for Electronic snap circuits : hands-on program for basic electricity and electronics -- Electronic snap circuits with computer interface, projects PC1-PC73, instruction manual -- Electronic snap circuits experiments 1-101, instruction manual -- Electronic snap circuits projects 102-305, instruction manual -- Electronic snap circuits projects 306-511, instruction manual -- Electronic snap circuits projects 512-692, instruction manual. Grades: 4 5 6 7. "Following the Learn by Doing concept, electronics will be easy for students to understand by using Snap Circuits to build circuits as they learn about them."--Page 1 of teacher's guide. Some projects require a Windows-based computer and other components (not provided) to complete. |
| 621.4 HAR | Harnessing the wind [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2016. This kit contains the following titles: Wind energy: blown away! / Amy S. Hansen -- The boy who harnessed the wind / William Kamkwamba and Bryan Mealer. Includes a portion of the teacher's guide Even more picture-perfect science lessons: using children's books to guide inquiry, K-5 / Emily Morgan and Karen Ansberry. Grades: 3 4 5. Picture-perfect science integrates reading comprehension and content knowledge in different areas of science. In this unit, "students are given a real-world context for the concept of energy transfers and transformations through the remarkable true story of a boy who builds a windmill for his village."--Page 103 of teacher's guide. |
| DVD 537 ELE | Electricity [videorecording]. Classroom ed. Elk Grove Village, Ill.: Disney Educational Productions, c2008. Conductors, insulators and circuits -- Electrical hazards -- Safety and science -- Short circuits and safety -- Safety smart music video -- Bonus materials -- Activities -- Educator's guide and web links. Host and presenter: Bill Nye. Explores the science of safety by going behind the scenes at Underwriters Laboratories and discovering how products that use electricity are tested to keep us safe. -- Container. |
| DVD 537 ELE | Electricity [videorecording]. Elk Grove Village, Ill.: Disney Educational Productions, c2010. Science and imagination -- What is electricity? -- Putting electrons to work -- "Spectromagic" parade -- Completing the circuit -- Electricity & magnetism -- Static electricity -- Putting it all together -- Test track. Hosted by the Walt Disney Imagineers featuring Asa Kalama. "What powers some of the brightest attractions at Disney's theme parks? Electricity! From lighting the half million bulbs in Magic Kingdom's Spectromagic parade to transmitting electricity through water for the Finding Nemo Submarine Voyage, Disney Imagineers show students how electricity brings some of their favorite rides to life. Students will learn the definitions of source, load, conductor, watts, as well as static electricity and its connection to lightning rods aboard the Disney Magic cruise ship". |
| DVD 537.6 ELE | Electrical current [videorecording]. Classroom ed. Elk Grove Village, IL: Disney Educational Productions;, 2008. Host, Bill Nye. Grades: 4 5 6 7. Bill Nye gets a charge explaining "watts up" with electricity. Learn how electricity makes the world a brighter place. |
| ELL 537 EXP | Exploring electricity [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit contains the following title: Electricity / Catherine Little. Kit includes a section of the Big idea science teacher's guide. Audience: Intermediate ELL. Level 2. "This series offers students opportunities to learn essential curriculum concepts, develop content-specific vocabulary and academic words in context, as well as acquire competencies in literacy and critical thinking skills." --Page 4 of teacher's guide. "This book deals with electrical energy. It is designed to give an overview of electrical energy, how we use it, and how energy from different sources can be changed into electrical energy. It also deals with how electrical devices change electrical energy into different forms of energy." --Page 29 of teacher's guide. |
| ELL 537 MOO | Moore, Rob. Why does electricity flow? [kit]: and other questions about electricity. [Burnaby, B.C.] : [Burnaby School District], 2012. Why does electricity flow? : and other questions about electricity / Rob Moore. Cambridge, UK: Cambridge University Press, c2010. Intermediate ELL Level 3. What is electricity? What is static electricity? Why do batteries go flat? You can find the answers to these and other questions about electricity in this book. --Cover p. [4]. |
| SPF 537 ELE | L 'électricité et des sources d'énergie [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit contains the following titles: L'électricité / Cédric Faure (6 copies) -- L'électricité / Nicolas Brasch (6 copies) -- Le monde branché de l'électricité, avec Max Axiome, le super scientifique / Liam O'Donnell (6 copies) -- C'est électrique! / Gary Cross [and 10 others] (15 copies). Teacher's guide: C'est électrique! : Guide d'enseignement. Grades: 6 (French Immersion and French Late Immersion). A collection of non-fiction books about electricity and sources of energy, written in French. |
| TR 537 ROB | Robertson, William C. Stop faking it! Electricity and magnetism. Arlington, Va.: NSTA Press, c2005. Small sparks to get us going -- More about charging things -- Magnets enter the picture -- Connecting electricity and magnetism -- Cirque du circuit -- Cutting, splitting, and stacking circuits - Direct from high voltage to you and your computer. Audience: Professional. Presents information on electricity and magnetism for teachers, covering the basics of static electricity, current electricity, and magnetism so that instructors have a deeper understanding and can be more comfortable with teaching it. Includes sample exercises, glossary, and index. |