Big Idea *Forces influence the motion of an object.*

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| **Science 2 - Forces DLRC Resources November 2018** | |
| 531.1 FOR | Force and motion [kit]. [Burnaby, BC: assembled by Burnaby School District], 2006. This kit contains the following titles: Gravity / Susan Canizares, Daniel Moreton (6 copies) -- Make it move / Susan Canizares, Betsey Chessen (6 copies) -- Push or pull / Susan Canizares, Betsey Chessen (6 copies) -- Make it go / David Evans and Claudette Williams (1 copy) -- Why does it spin? : display/activity book / by Garfield and Judith Reeves-Stevens (2 copies) -- Why does it spin? (small book) (1 copy). Teacher's guide: Let's move: teacher's guide - B.C. edition (1 copy). Grades: 1 2. This kit provides information on different types of forces and motion. |
| 531.1 ROL | Roller coasters [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit contains the following titles: I fall down / Vicki Cobb -- Motion: push and pull, fast and slow / Darlene Stille -- Roller coaster / Marla Frazee. Includes a portion of the teacher's guide More picture-perfect science lessons: using children's books to guide inquiry, K-4 / Karen Ansberry, Emily Morgan. Grades: K 1 2 3 4. Picture-perfect science integrates reading comprehension and content knowledge in different areas of science. This program uses picture books and activities to reinforce the concepts of inquiry-based learning for students and teachers. In this unit, "Learners explore ways to change the speed and direction of a rolling object by building roller coasters out of pipe insulation." --Page 133 of teacher's guide. |
| 531.11 FOR | Forces and motion [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2016. Kit contains the following titles: Changing direction / Natalie Hyde (1 copy) -- Move it! : motion, forces and you / Adrienne Mason (1 copy) -- Motion : push and pull, fast and slow / Darlene Stille (1 copy) -- Experiments in forces and motion : with toys and everyday stuff / Emily Sohn (1 copy) -- Forces and motion / Angela Royston (1 copy) -- Forces make things move / Kimberly Brubaker Bradley (2 copies) -- Oscar and the cricket : a book about moving and rolling / Geoff Waring (2 copies) -- Forces and movement / Peter Riley (1 copy) -- Forces around us / Sally Hewitt (1 copy) -- Forces and movement / Nora L. Alexander (1 copy) -- Fun with static electricity / Chocolate Tree (1 copy). Teacher's guide: Forces and movement teacher's guide. Grades: 2. This kit provides a variety of information on different types of forces and energy, as well as motion and movement. |
| 531.11 INV | Investigating forces and motion [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2018.  Kit contains 11 titles: Push and pull / Patricia J. Murphy -- Focus on momentum / Christopher Forest -- Focus on inertia / Joanne Mattern -- Focus on friction / Joanne Mattern -- All about forces / Angela Royston -- Forces and motion / Anna Claybourne -- Recreate discoveries about forces / Anna Claybourne -- Experiments with forces / Isabel Thomas -- Investigating forces and motion / Richard Spilsbury -- Move it! : forces, motion and you / Adrienne Mason -- Motion: push and pull, fast and slow / Darlene Stille. Grades: 2 3. This kit provides a variety of information on different types of forces and energy, as well as motion and movement. |
| 531.11 LET | Let's move [kit]: motion close-up. [Burnaby, B.C.] : assembled by Burnaby School District, 2017. Kit contains the following titles: Experiments in forces and motion with toys and everyday stuff / Emily Sohn (1 copy) -- Why do moving objects slow down? : a look at friction / Jennifer Boothroyd (1 copy) -- Many ways to move: a look at motion / Jennifer Boothroyd (1 copy) -- Give it a push! Give it a pull! : a look at forces / Jennifer Boothroyd (1 copy) -- Changing direction / Natalie Hyde (1 copy) -- Pushing and pulling / Natalie Hyde (2 copies) -- Speeding up, slowing down / Natalie Hyde (2 copies) -- What is motion? / Natalie Hyde (2 copies). Teacher's guide: Let's move teacher's guide. Grades: K 1 2. The books in this kit examine different aspects of motion, including force, energy, speed and friction. |
| 531.11 MOV | Move it! [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2017. This kit contains the following titles: Newton and me / Lynne Mayer -- Move it! : motion, forces and you / Adrienne Mason. Includes a portion of the teacher's guide Picture-perfect STEM lessons, K-2: using children's books to inspire STEM learning / Emily Morgan and Karen Ansberry. Grades: K 1 2. Picture-perfect science integrates reading comprehension and content knowledge in different areas of science. This program uses picture books and activities to reinforce the concepts of inquiry-based learning for students and teachers. In this unit, "Students explore simple cause-and-effect relationships with forces and motion by experimenting with a toy dog (named Newton) and a toy car."--Page 125 of teacher's guide. |
| 531.11 PUS | Push and pull [kit]: forces. (Series: Little books, big ideas) [Burnaby, B.C.] : assembled by Burnaby School District, 2018.  Kit contains 11 titles: Push or pull? / John Parker -- How people move around / Linda Bruce -- Introduction to energy / Glen Phelan -- Building a house / Annette Smith, Jenny Giles and Beverley Randell -- Animals push and pull / Louise Crary -- Vehicles push and pull / Louise Crary -- People push and pull / Louise Crary -- Machines push and pull / Linda Ward Beech -- Trains push and pull / Linda Ward Beech -- Forces and motion during winter sports / Dorothy Heil -- Go for it! / Taunya Nesin. Grades: K 1 2 3. The books in this kit introduce big ideas using simple text and evocative illustrations. Students will understand concepts of force, motion and energy as they are encountered in the activities of everyday life. |
| 531.11 SHE | Sheep in a jeep [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit contains the following titles: Sheep in a jeep / Nancy Shaw -- Forces and motion / Angela Royston -- Forces and motion / John Graham. Includes a portion of the teacher's guide Picture-perfect science lessons: using children's books to guide inquiry, grades 3-6 / Karen Ansberry, Emily Morgan. Grades: 3 4. Picture-perfect science integrates reading comprehension and content knowledge in different areas of science. This program uses picture books and activities to reinforce the concepts of inquiry-based learning for students and teachers. In this unit, "learners investigate forces and motion using ramps, toy jeeps, and small plastic farm animals, and share their findings in a poster session." --Page 181 of teacher's guide. Please note: The equipment described above is not included in this kit. |
| 538 AMA | Amazing magnetism [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2006. This kit contains the following titles: Magnetism: teacher's guide -- Magnetism: matter and materials / Nora Alexander ... [et al.] -- Which way is north? display activity book / Garfield and Judith Reeves-Stevens -- Which way is north? / Garfield and Judith Reeves-Stevens -- Magnetism / Peter Riley -- Science with magnets / Helen Edom -- What magnets can do / Allan Fowler -- Amazing magnetism / Rebecca Carmi -- Mickey's magnet / Franklyn M. Branley and Eleanor K. Vaughan. Grades: 2 3. This kit contains information on magnets and magnetism. |
| 538 MAG | Magnets [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2006. This kit contains the following titles: Magnets / Winola Chu -- Stuck on magnets: an integrated activity unit / Ed Catherall -- Which way is North? display activity book / Garfield and Judith Reeves-Stevens -- Is it magnetic or nonmagnetic? / Trudy Rising -- Attract and repel: a look at magnets / Jennifer Boothroyd -- A look at magnets / Barbara Alpert -- Magnetic and nonmagnetic / Angela Royston. Grades: 1 2. This kit contains information on magnets and magnetism. |
| 538 THA | That magnetic dog [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit contains the following titles: What makes a magnet? / Franklyn M. Branley -- Magnetic and nonmagnetic / Angela Royston -- Magnets: pulling together, pushing apart / Natalie M. Rosinsky. Includes a portion of the teacher's guide More picture-perfect science lessons: using children's books to guide inquiry, K-4 / Karen Ansberry, Emily Morgan. Grades: K 1 2. Picture-perfect science integrates reading comprehension and content knowledge in different areas of science. This program uses picture books and activities to reinforce the concepts of inquiry-based learning for students and teachers. In this unit, "Learners 'go fishing' with magnets and discover through exploration that not all metals are magnetic." --Page 123 of teacher's guide. |
| 621.8 DIR | Discovery rubber ramps [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2013. Instruction sheet: Rubber ramps contents, assembly, care and maintenance. Grades: K 1 2 3. This 25 foot long piece of flexible ramp allows children to explore the manipulation of a continuous line, and to experiment with elevation change in relation to a start and ending point. Use the stackable stands to create hills, slopes, or banks around an entire room! Children will be intrigued for hours by this open ended, enriching activity. |
| 621.8 DIS | Discovery ramps. Indoor [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2013. Book: Ramps & pathways: a constructivist approach to physics with young children / Rheta DeVries and Christina Sales (1 copy). Instruction sheet: Discovery ramps contents, recommended use and assembly. Grades: K 1 2 3. This set provides children with the opportunity to experiment with the physics of ramps. Children construct a series of ramps using the materials in this kit along with items from around the classroom. Explore motion, cause and effect and the pull of gravity. Have races, build obstacle courses and problem solve through play. |
| DVD 530 PHY | Physical science [videorecording]: the basics. Silver Spring, MD: Discovery Communications;, c2005. Part one: Matter -- Solid, liquid, gas -- Sound -- Gravity and buoyancy -- Light -- Heat -- Electricity -- Magnetism -- Measuring physical properties -- Materials -- The position of an object -- Pushing and pulling objects. Part two: Electricity and magnetism -- Energy -- Forces and motion -- Matter -- Tools and machines -- Waves, light and sound. Produced by TLC Elementary School and Summer productions. Grades: K 1 2. "From electricity and magnetism to light and sound, introduce young students to a wide variety of physical science topics." --Container. The segments in part one are student videos. Part two contains six scientific literacy segments for classroom teachers. |
| DVD 531.11 MOV | Moving things [videorecording]. Orangeville, Ont.: distributed by McIntyre Media Inc., [2013]. Narrator, Nina Keck. Grades: K 1 2 3. "A ball flying through the air, a deer walking in the woods, and a flowing river -- these are all examples of moving things. This action-packed video explores the characteristics of things in motion."--Container. |
| ELL 530 MAT | Matter and energy [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit contains the following titles: Light -- Magnets -- Sound -- Heat -- Energy -- Motion. This kit contains the following teacher's guide: Talk about overview. Audience: Primary beginner ELL. Level 1. "The Talk About series introduces the students to English vocabulary and everyday English language patterns and structures through talking about a topic, reading about the topic, and then writing about the topic." --p. 1 of teacher's guide. The books in this kit use pictures, diagrams and simple language to introduce students to concepts of matter and energy, including light, sound, motion and others. |
| ELL 531.11 REE | Rees, Peter. Why do swings swing? [kit]: and other questions about forces. [Burnaby, B.C.] : [Burnaby School District], 2012. Why do swings swing? : and other questions about forces / Peter Rees. Cambridge, UK: Cambridge University Press, c2010. Audience: Primary, Intermediate ELL. Level 2. Why do swings swing? Why do swings stop swinging? What makes things change direction? You can find the answers to these and other questions about motion in this book. --Cover p. [4]. |
| ELL 538 MCM | McMahon, Michael. Why do magnets attract? [kit]: and other questions about magnetism. [Burnaby, B.C.] : [Burnaby School District], 2012. Why do magnets attract? : and other questions about magnetism / Michael McMahon. Cambridge, UK: Cambridge University Press, c2010. Audience: Primary, Intermediate ELL. Level 2. What is magnetism? What is a magnetic field? What are a magnet's poles? You can find the answers to these and other questions about magnets in this book. --Cover p. [4]. |
| SPF 530 MAT | La matière et l'énergie [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2015. Kit contains the following titles: La chaleur -- La lumière -- Le son -- L'énergie -- Les aimants -- Le mouvement. Grades: 3 4 (French Immersion) and French LSS. "La collection Pour tout dire reconnaît que la communication orale, la lecture et l'écriture sont interdépendantes et que l'apprentissage de l'une contribue à l'acquisition de l'autre."--Page [2] of cover. The titles in this series are also appropriate for French LSS. |
| TR 531.6 ROB | Robertson, William C. Stop faking it! Energy. Arlington, Va.: NSTA Press, c2002. Recognizing energy -- Energy on the move -- It slices, it dices--it gathers dust! -- Temp-a-chur and thermal energy -- Close the door--you're letting the cold in! -- Taming energy. Audience: Professional. "At the book's heart are easy-to-grasp explanations of energy basics--work, kinetic energy, potential energy, and the transformation of energy--and energy as it relates to simple machines, heat energy, temperature, and heat transfer. Irreverent author Bill Robertson suggests activities that bring the basic concepts of energy to life with common household objects." --Cover p. [4]. |
| 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. |
| TR 538.4 MOS | Mostly magnets. Fresno, CA: Aims Education Foundation, 2008. Audience: Professional. Grades: 3 4 5 6. Magnetism has always held a fascination for young and old alike, probably because it seems almost magical in its unseen effects. Since magnetism has so many everyday application in modern life, students need to learn about it as an area of physical science. Through the use of these activities, students will learn about: the interaction of magnets with other materials, the interaction of magnets with magnets, magnetic fields, magnetic compasses and electricity and magnetism. |
| V 538 MAG | Magnets [videorecording]. 2nd. ed. [Saint Louis, Mo.]: Coronet/MTI Film & Video;, c1990. Models the investigative approach to science discovery. Investigator Alligator, and the aid of his friend Mr. E, explores the concepts of magnetic strength, polarity and magnetic fields as he tries to solve The Case of the Bouncing Rings. |