Big Idea *Light and sound can be produced and their properties can be changed.*

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| **Science 1 - Light and Sound DLRC Resources October 2018** | |
| 534 HEA | Hearing things [kit]: sound. [Burnaby, B.C.] : assembled by Burnaby School District, 2016. Kit contains the following items: How does sound change? / Robin Johnson (1 copy) -- Experiments in light and sound : with toys and everyday stuff / Natalie Rompella (1 copy) -- All about sound / Angela Royston (1 copy) -- So many sounds / Dana Meachen Rau (1 copy) -- Hearing things / Allan Fowler (1 copy) -- Vibrations make sound / Jennifer Boothroyd (1 copy) -- Sound / Terry Jennings (1 copy) -- Amazing sound / Sally Hewitt (1 copy) -- Sound : loud, soft, high, and low / Natalie M. Rosinsky (1 copy) -- What makes the sound? (1 copy) -- What makes the sound? Display/activity book / Judith and Garfield Reeves-Stevens (1 copy) -- Sounds all around / Wendy Pfeffer (2 copies) -- What are sound waves? / Robin Johnson (1 copy). Grades: K. Introduces sound, what it is, what makes it, how it travels, and how we hear it. |
| 534 LET | Let's drum! [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2017. This kit contains the following titles: Drum dream girl: how one girl's courage changed music / Margarita Engle -- Drum city / Thea Guidone. 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 learn about different types of drums, the basic parts of a drum, how drums make sound, and how repeated sound patterns are called rhythms."--Page 139 of teacher's guide. |
| 534 SOA | Sounds all around [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2016. This kit contains the following titles: Sounds all around / Wendy Pfeffer -- What's that sound? / Mary Lawrence. 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: 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 discover that sound is caused by vibrating matter and that sound can make matter vibrate."--Page 125 of teacher's guide. |
| 534 SOU KIT2 | Sound. Kit 2 [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2017. Kit contains the following titles: Vibrations make sound / Jennifer Boothroyd (1 copy) -- All about sound / Angela Royston (1 copy) -- How does sound change? / Robin Johnson (1 copy) -- Experiments in light and sound with toys and everyday stuff / Natalie Rompella (1 copy) -- What are sound waves? / Robin Johnson (1 copy) -- Hearing sounds / Sally Hewitt (1 copy) -- Sound: loud, soft, high, and low / Natalie M. Rosinsky (1 copy) -- Sounds all around / Wendy Pfeffer (2 copies). Grades: 1. An introduction to sound that explains what sound is, how it travels in waves, how scientists measure the speed of sound, and how music is made and heard. |
| 534.071 SOU | Sound and music [kit]. Cincinnati, Ohio: T&S Educational, Inc. /Kemtec, c2002. Grades: 1 2 3 4 5 6 7. The materials in this kit will help students to understand the characteristics of sound waves, how sound travels, and what makes different sounds. The kit also introduces musical concepts and the structure of the human ear. Teachers can use these materials to demonstrate the concepts to younger students. |
| 535 ALL | All about light [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2016. Kit contains the following titles: Sensing light and sound / Jennifer Boothroyd (1 copy) -- Light helps me see / Jennifer Boothroyd (1 copy) -- Sending messages with light and sound / Jennifer Boothroyd (1 copy) -- Playing with light and shadows / Jennifer Boothroyd (1 copy) -- Light makes colors / Jennifer Boothroyd (1 copy) -- Experiments in light and sound : with toys and everyday stuff / Natalie Rompella (1 copy) -- All about light / Angela Royston (1 copy) -- Light / Samantha Berger (3 copies) -- What are light waves? / Robin Johnson (1 copy) -- What are shadows and reflections? / Robin Johnson (1 copy) -- The energy we see: a look at light / Jennifer Boothroyd (1 copy). Grades: K 1. These books introduce light: what it does, where it comes from, and why we need it. |
| 535 MIR | Mirror, mirror [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2014. This kit contains the following titles: Shadows and reflections / Tana Hoban -- I see myself / Vicki Cobb -- Light: shadows, mirrors, and rainbows / 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. "Using flashlights, mirrors, and spoons, learners explore how light travels. They investigate how light is reflected differently by curved and rough surfaces and why mirrors are the best surfaces for seeing themselves." --Page 147 of teacher's guide. |
| 535.4 SHA | Shadow and reflection with light box [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2011. Kit includes the following titles: Round trip / Ann Jonas -- Moonbear's shadow / Frank Asch -- Shadows and reflections / Tana Hoban -- Reflections / Ann Jonas -- Light and dark / Angela Royston. Activity guides: Dwellings (color) Suggestions for Use -- Reflections and Shadows: science for 3-5 years old. Book chapter: Photocopy of Chapter 2 from Constructivism across the curriculum in early childhood classrooms: big ideas as inspiration / Christine Chaillé. DVD: Storie d’ombra: poetica di un incontro = Shadow stories: poetics of an encounter / Reggio Children (14 min.). Grades: K 1 2 3. Hands-on tools for creating shadows and reflections. Can be used with table top light box for enhanced visual learning experience. Dwellings: "Imagine the possibilities, designing and constructing with acrylic prisms, mylar, and optical color filters. Dwellings, a miniature 'glass' house, shimmering with saturated colors, becomes an open-ended building toy where you can create rainbow towers, columns of colored light, and a solar greenhouse" -- Learning Materials Workshop. DVD: "The video Shadow Stories. Poetics of an Encounter between Science and Narration from La Villetta Municipal Preschool in Reggio Emilia describes the experience of the encounter between the children and shadows. During a visit to the Loris Malaguzzi International Centre, not yet open to the public, the children choose the shadow of a window in the future large exhibition hall as an element that gives identity to the place. The window is a border element but also a relationship between inside and out. An animated photo-story, alternating with brief video clips concluding with a short animation created by the children. A school of research, which is not confined to the school building, and that, with its thoughts, becomes part of the Loris Malaguzzi International Centre" -- Container. |
| 535.6 COL | Colour and light with light box [kit]. [Burnaby, B.C.: assembled by Burnaby School District], 2012. This kit contains the following titles: Constructivism across the curriculum in early childhood classrooms: big ideas as inspiration / Christine Chaillé -- Color / Angela Royston. Grades: K 1 2 3. Magna-tiles: Translucent 3-D magnetic building tiles connect with magnets. Pieces can be put together to create cubes, pyramids and other geometric shapes. Helps students explore creativity, math and spatial relationships and develop tactile, patterning and basic geometry skills. Can be used with table top light box for enhanced visual learning experience. Prism blocks: Three-dimensional prism block structures can be constructed and displayed on the light table for enhanced visual learning. Giant water prism: Create giant rainbows in your classroom. Fill this acrylic container with water and display the colour spectrum using the table top light box. Colour paddles: Experiment with these paddles and discover how secondary colours are made. Hold the paddles up to the light and overlap two primary colours to make a secondary colour. |
| 535.6 EXP | Exploring colours and light [kit]. [Burnaby, B.C.] : assembled by Burnaby School District, 2018, 2012. This kit contains the following titles: Color & light / David Evans and Claudette Williams (1 copy) -- All about light / Lisa Trumbauer (2 copies) -- Light / Graham Peacock (1 copy) -- Light finds color / Jeong-hui Kim (1 copy) -- The simple science of light / Emily James (1 copy) -- Light / Abbie Dunne (1 copy) -- Flicker flash : poems / Joan Bransfield Graham (1 copy) -- Light and color / Gary Gibson (1 copy) -- Colours / P.M. Valat (1 copy) -- Science experiments with light / Sally Nankievell-Aston and Dorothy Jackson (1 copy) -- Light and color / Peter Riley (1 copy). Grades: K 1 2. A collection of mainly non-fiction books on colour and light. Includes student activities and science experiments, as well as a book of poetry on the subject. |
| 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 535 ALL | All about light [videorecording]. Wynnewood, Pa.: Schlessinger Media,. Introduction -- What is light? -- Light waves -- Reflection -- Absorption -- Review #1 -- Blocking light -- Bending light -- Review #2 -- ROY G BIV -- Investigation: exploring light -- Seeing colors -- Conclusion -- Discussion questions & activities. Physical Science for Children is a production of Schlessinger Media, a division of Library Video Company. Executive producers: Andrew Schlessinger, Tracy Mitchell; directed by Tarquin Cardona; written by Tarquin Cardona and Paul Kramer; First Light Pictures, Inc.; Schlessinger Media. Grades K – 4 All about light takes kids on a fun journey to answer questions like: "Why does light shine through some things and not others?" and "Why can we see our reflections in water, but not in a rock?" Learn how light travels in waves, as well as how those waves behave, including an introduction to the three main characteristics of light waves: amplitude, wavelength and frequency. Explore the connection between light and color in a fun, hands-on activity in which kids use a prism to split white light into the color of the rainbow and then combine colored light to create while light -- Container. |
| OV 535.6 LIG | Light cube [kit]. Waterloo, Ont.: Roylco Canada, [2014]. Light cube: Plastic light cube includes 1 remote control and 1 AC power cord. Accessory kit: An assortment of coloured fancy stringing rings, 8 animal x-rays, 12 optical illusion transparency sheets, 3 paint scrapers, 4 squiggle pipettes, 8 vials (with red lids), 3 clear square plastic trays. Teachers' guides: Light cube [teacher's guide] -- Educational light cube accessory kit [teacher's guide]. Grades: K 1. "Portable, durable and rechargeable, [the light cube] strobes, flashes and changes color with the touch of a button. The cube is the perfect size for... young children [to] stand or kneel while [engaging] in focused, quiet play. The [accessories] kit features lots of colorful materials. Count and sort beautiful bead shapes. Examine details in x-rays and layer optical illusion [transparency] sheets to discover interesting patterns. Drop paint onto washable plastic trays and drag paint scrapers on top to make swirls and lines. Use the squiggle pipettes to develop fine motor skills. Discover amazing possibilities with these sensory play resources! The teacher guide includes detailed descriptions of fun projects to direct your classroom light table activities." -- Roylco. |
| OV 792.024 SOU | Sound effects [kit]. [Burnaby, B.C.] : [Burnaby School District], 2012. Kit includes the following titles: Sound stories for interactive listening and reading fun / Cristi Cary Miller -- Noisy poems / collected by Jill Bennett. The instruments and materials in this kit can be used to enhance a variety of activities, including oral reading and poetry, jazz chant, puppet shows and dramatic performances. |
| TR 534 ROB | Robertson, William C. Stop faking it! Sound. Arlington, Va.: NSTA Press, c2003. Stop children, what's that sound? -- Waving strings -- How sound gets around -- Harmonic convergence -- Waves do basic math--adding and subtracting -- The hills are alive -- Listening devices. Audience: Professional. Clear explanations, drawings, and activities cover what science teachers and parents need to know to teach children about sound. |
| TR 535 ROB | Robertson, William C. Stop faking it! Light. Arlington, Va.: NSTA Press, c2003. Light--the early years -- Colorful waves -- Focus, people, focus -- Not-so-cheap sunglasses -- When light waves collide -- All about eyeballs -- Fire the photon torpedoes, Mr. Sulu!. Audience: Professional. Clear explanations, drawings, and activities cover what science teachers and parents need to know to teach children about light, what it is, where it comes from, and how it is used. |
| V 534 SND | Sound [videorecording]. 2nd ed. [Columbus, Ohio]: Coronet;, 1990. Investigator Alligator and his pal Mr. E check out the basics of sound as they study the information sounds give us about our world. They see how distance affects what we hear, as does the size, shape and motion of the noise maker. They show how sound usually travels through the air in all directions and what happens to sound when it only goes one way. |