

Grade 10 Science: resources from Discovery Education Streaming

| Course of Study | Media Title /SegmentTitle | Brief Description | Strand or Unit link | Other resources (ie. quiz, hand-outs) | URL |
|-----------------|--|--|--|---------------------------------------|---|
| SNC2P/2D | Changes in the Climate-Biomes: Land of the Inuit | Climate changes are affecting hunting, food availability, and the balance in Inuit culture. (2004) | Earth and Space Science-climate (D1.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=a476f347-fada-41b9-bb71-93f99bee8ac8 |
| SNC2P/2D | Simply Science: Weather Systems | Air currents e.g. convection current, Coriolis Effect; Water currents; other weather phenomena A meteorologist at a weather forecasting center explains how data is collected for weather forecasts, and how storm activity can be predicted. (1998) | Earth and Space Science-climate (D2.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=4e687b6d-2067-4aea-b7ab-8a10791745e6 |
| SNC2P/2D | Energy Efficiency in the Home | How to control heat loss. The materials and gas used to construct thermal efficient windows are described. A hot water heater that doubles as a home furnace is vastly more efficient than a separate hot water heater and furnace combination. (1998) | Earth and Space Science-climate (D1.2) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=EFD7309B-2D5D-486B-96FE-9713F77FDD06 |

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| SNC2P/2D | What is the Greenhouse Effect? | Global Warming: Action and Reaction(2004) | Earth and Space Science-climate (D2.2) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=BA7A931D-28D7-4F84-99A1-316FC31C8382 |
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| SNC2P/2D | Testing the Greenhouse Effect | Scientists decide to build a set of greenhouses to test whether such gases as carbon dioxide and methane really do cause global warming.(2008) | Earth and Space Science-climate (D2.2) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=FB9820F4-33F0-498B-95FE-945C6275E82F |
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| SNC2P/2D | Great Books: The Origin of Species (51:00) | Darwin's theory described | Evolution | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=AE5EF6E3-2EF4-46C1-B1BD-802ED3F9A84D |
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| SNC2P/2D | Biomes: Wild Arctic | Explore the close relationship the creatures of the Arctic have with their fragile ecosystem. | Ecology, Earth Science, and Biology | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=B8ABD235-0A48-4994-AEB2-327445AF426C |
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| SNC2P/2D | Melting Glaciers in Alaska | A crew travels to Haines, Alaska, to study Davidson's Glacier. The glacier is melting at an alarming rate due to global warming and rising global temperatures. (2009) | Earth and Space Science-climate (D1.1)(D2.4) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=C05EAA99-B5BB-4A06-8FB8-D6A60ECF6345 |
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| SNC2P/2D | Clouds and Patterns of the Weather | This dramatic video reviews how clouds are formed, illustrates different types of clouds, and explains what these different types indicate in terms of weather patterns. | Earth and Space Science-climate (D1.1)(D2.4) | Teacher's Guide, quiz, blackline master (labs) | http://player.discoveryeducation.com/index.cfm?guidAssetId=38C93AFF-16D4-415E-BF5E-E14FC1C2567 |
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| SNC2P/2D | Weather Smart: Thunderstorms | Through dynamic time-lapse videography, students learn about the process of convection and how it turns cumulus clouds into cumulonimbus clouds. Spectacular lightning images show the electrical power inside storms. | Earth and Space Science-climate (D1.1)(D2.4) | Teacher's Guide, quiz, blackline master (labs) | http://player.discoveryeducation.com/index.cfm?guidAssetId=57889EF0-8B43-4850-8A4A-14A27B497E50 |
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|-----------------|--------------------------------|--|--|-----------------|---|
| SNC2P/2D | Vision | How does eye work - Rods and cones carry out chemical reactions for sight. The eye tracks objects as a series of points. The optic nerve connects the retina to the brain. The brain perceives distance, speed, and three-dimensional objects. The brain can be sometimes be fooled, as in the case of an optical illusion. How does a camera captures images?(2004) | Physics: Light and Geometric Optics (E1.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=657E1B75-980F-4C4F-B8ED-63C4187591E0 |
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| SNC2P/2D | Eyeglasses (Article) | Corrective Eyeglasses, Protective Eyeglasses, Contact Lenses and Implanted Lenses, e Care Specialists | Physics: Light and Geometric Optics (E1.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=C7996A1B-9280-48AF-B1A8-DD905933D3A4 |
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| SNC2P/2D | The Optical (Light) Microscope | The most common type of microscope is the optical microscope. This video shows and describes the parts of a compound optical microscope and explains how it works. (1989) | Physics: Light and Geometric Optics (E1.2) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=745C6395-BC60-4D6C-BE19-B46FBFB32F31 |
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| SNC2P/2D | Exploring Light and Color-mirrors and lenses:light technologies | The electromagnetic spectrum, the sources of light, the properties of light, reflection, refraction, lenses, and how human and animal eyes work. Lasers and fiber optics are also discussed and demonstrated. (1993) | Physics: Light and Geometric Optics (E1.1) | Teacher's Guide, quiz, blackline master (labs) | http://player.discoveryeducation.com/index.cfm?guidAssetId=DA3000F8-3BBC-4903-82FA-8E66F872B2C7 |
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| SNC2P/2D | Light: Optics and Electricity | Principles such as refraction, reflection, and the behavior of light as it passes through lense; theory of electromagnetism ;speed of light; developments in electricity and telecommunications that have transformed our lives. The refraction of light through convex and concave lenses is illustrated and discussed.(2006) | Physics: Light and Geometric Optics (E2.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=5F49FDEE-8045-442E-B0B4-C50B055C8A38 |
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| SNC2P/2D | Reflected Light and Mirrors | Images from flat mirrors are virtual images. Curved mirrors are either concave or convex.The boundaries between materials produce angles of incidence and refraction. Light striking the boundary of a substance at an angle greater than the critical angle is reflected. (1996) | Physics: Light and Geometric Optics (E2.1)(E3.6) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=E02B12E5-175D-4563-9BAF-68ACF3E01BA5 |
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|-----------------|---|---|--|-----------------|---|
| SNC2P/2D | Light, Lenses, and Lasers | Waves and their characteristic properties; light is the visible part of the electromagnetic spectrum consisting of a variety of waves from radio waves to cosmic rays; use of concave and convex lenses and the concepts of diffraction and polarization.(1996) | Physics: Light and Geometric Optics (E3.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=80B999B4-DA22-452C-92F1-9093871CCE14 |
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| SNC2P/2D | Rainbows | What a rainbow is and how it is formed. | Physics: Light and Geometric Optics (E3.8) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=FF91E576-C104-47A9-BFB8-B95E3B03A941 |
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| SNC2P/2D | Developments in Reproduction: Cross-species Cloning | The Power of Genes - Cloning (2004) | Biology: Tissues, Organs, and systems of living systems (B1.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=7CFD47CE-0455-43E3-98D2-0D08ABA356D |
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|-----------------|---|---|--|-----------------|---|
| SNC2P/2D | Microbiology - research on embryonic stem cells | Division of Cells —Examine the different processes involved in cell division and see how new research on embryonic stem cells may create changes in the future of medical science. Changing Food to Energy — Learn about mitochondria and see how your body converts food to useable energy. Controlling Systems: Hormones and Nerves — See how chemicals help your nervous system work and learn about naturally occurring hormones in the human body. Connected Systems: Biodiversity, Ecosystems, and Ecology — Explore the many connections between the humans, plants, and animals coexisting on planet Earth.(2006) | Biology: Tissues, Organs, and systems of living systems (B1.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=4050BD A5-8093-4259-95A8-02A8E6961BD |
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| SNC2P/2D | Imaging Technology: Ultrasound | An ultrasound uses high frequency sound waves to create an image of the fetus. Ultrasound can be used to identify problems with pregnancy.(1997) | Biology: Tissues, Organs, and systems of living systems (B1.2) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=4ED36C4D-1DB2-4325-BB4A-B1E3909BA033 |
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| SNC2P/2D | X-Rays and Cat Scans | A strange object was found embedded in Kennewick Man's pelvis. A cat scan revealed that it was an ancient stone spear point that was commonly used between 5000 and 9000 years ago.(2004) | Biology: Tissues, Organs, and systems of living systems (B1.2) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=A8D59B19-64E1-4B0A-A289-7BA6365C481E |
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|-----------------|--|--|--|-----------------|---|
| SNC2P/2D | Cells - blood, skin, cancer | cell membrane nucleus, which holds the cell's DNA; organelles that carry out the cell's specific task; reproduce by mitosis, or cell division: (2002) | Biology: Tissues, Organs, and systems of living systems (B2.3) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=F48C423F-F866-4169-A9E1-12210C867DF4 |
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| SNC2P/2D | cell division | Genes are coiled in chromosomes in the cell's nucleus. Mitosis produces body cells. Meiosis produces cells involved in reproduction.(2002) | Biology: Tissues, Organs, and systems of living systems (B2.1)(B3.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=BF72CEA5-C2B1-4AB0-AE17-1A6BC2B97621 |
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| SNC2P/2D | Human Body Systems: The Circulatory System | This video explains the circulatory system and describes, through the use of 3-D computer graphics the workings of the heart, blood, arteries, veins, and capillaries.(1997) | Biology: Tissues, Organs, and systems of living systems (B3.4)) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=800CA676-82D2-4990-888A-DC098663721F |
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| SNC2P/2D | Human Body Systems: The Respiratory System | Through the use of computer graphics and diagrams, this streaming video explains the respiratory system and all of its organs and parts.(1997) | Biology: Tissues, Organs, and systems of living systems (B3.4)) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=50EA330C-DFE3-4443-B142-111DD7DB0764 |
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|-----------------|---|---|--|-----------------|---|
| SNC2P/2D | Chemistry - intro; crime solving; fuel cells; fire, smell | Properties of matter and how substances combine and react. . Chemistry is all around us and is a part of our lives everyday.(2002) | Chemistry: Chemical Reactions (C1.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=9D2AF557-176B-409C-AD24-FF6C26D26EFF |
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| SNC2P/2D | Legacy of an Oil Spill - super tanker Exxon Valdez spill | Provides students with a scientific perspective on the long-term effects of the nation's worst oil spill on the wildlife and habitats of Prince William Sound.(2002) | Chemistry: Chemical Reactions (C2.1) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=632C6D88-2685-41A8-8277-506C9DFF36C4 |
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| SNC2P/2D | Chemical Reactions- balancing, types, reaction rates | Simple everyday chemical reactions; chemical equations; how to balance chemical equations via colorful animation. Synthesis, decomposition, and replacement reactions are described. The energy dynamics of chemical reactions is conveyed, while explaining endothermic and exothermic reactions. Students will investigate the influence that concentration, surface area, temperature, and catalysts have on an actual reaction.(1998) | Chemistry: Chemical Reactions (C2.1)(C2.2)(C2.3) | Streaming Video | http://player.discoveryeducation.com/index.cfm?quidAssetId=12FC25F0-9753-422B-9881-78970B8DB4A6& |
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|-----------------|--|---|--|-----------------|---|
| SNC2P/2D | Naming Compounds and Balancing Equations | The law of conservation of mass is used in balancing equations. IUPAC rules are used to name ionic and molecular compounds.(1998) | Chemistry: Chemical Reactions (C2.1)(C2.2)(C2.3) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=F548333B-949F-48AD-AFC2-7A3C9D13FE4D |
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| SNC2P/2D | The pH Scale | A definition of pH is given and pH is calculated. Students demonstrate the use of pH meters and examine the significance of pH in a variety of household products as well as at a swimming pool, and with a food scientist. (1998) | Chemistry: Chemical Reactions (C3.7) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=80AAA6C4-F4E7-4EDA-85A2-4704F1C65E06 |
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| SNC2P/2D | Elements of Chemistry: Acids, Bases, and Salts | Acids and bases are two different classes of compounds that are fundamental to the functioning of our world. When they combine, acids and bases produce salts. Students explore the chemistry of acids and bases and focus on the pH scale, an ingenious measurement of the amount of acidity and basicity of compounds. The program concludes by illustrating how the level of acids and bases contribute to processes as varied as acid rain and the functioning of the cells in our bodies. (2003) | Chemistry: Chemical Reactions (C3.7) | Streaming Video | http://player.discoveryeducation.com/index.cfm?guidAssetId=F87F5C05-EDC4-40EF-92E0-D62BC7EE66D6 |