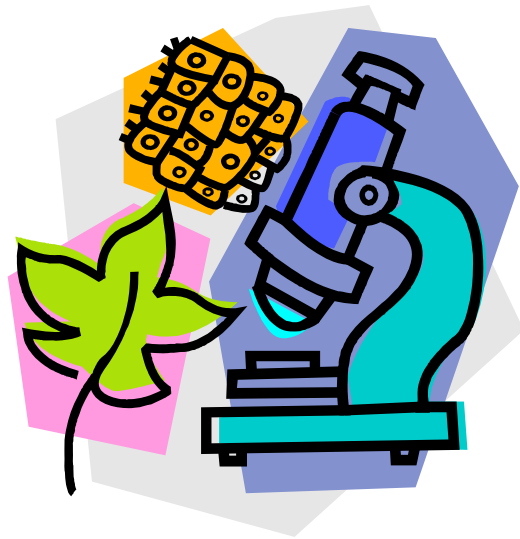


Science 6-9: Recommended Resources for the Renewed Curricula



*A list of professional materials available for borrowing
from the Stewart Resources Centre – April 2010*



The STF Stewart Resources Centre – CHECK US OUT!

In order to serve you better, we have compiled the following list of resources that directly address some of your professional needs. We hope you find this publication helpful, and we would be pleased to hear from you if you would like us to continue producing more specialized resource lists, or if you have suggestions on how we can improve our service to you. We want to serve you better!

We make it easy for you to use the Stewart Resources Centre:

- For rural schools, we mail our resources directly to you and provide a postage-paid mailing label for you to use to mail the resources back to us. (Audio-visual resources are excluded from the Canada Post library mailing rate, so you will need to pay postage to return these items.)
- For schools in Saskatoon, your resources arrive at your school through the weekly inter-school mail delivery. Materials may also be returned to us using this courier system.
- You don't need to know the exact titles for resources you need. Provide a topic and an approximate grade level at which you would like to use the materials, and we will do the rest!
- We are accessible 24 hours a day through the STF website: www.stf.sk.ca You may search our catalog online or e-mail us your resource requests at: src@stf.sk.ca
- Call us! STF members may call the Stewart Resources Centre toll-free at 1-800-667-7762, ext. 6323, or we can be reached at 373-1660, ext. 6323 for local calls.
- Visit us in person! We are open 8:30 a.m. to 5:00 p.m. from Monday to Friday.



SCIENCE GRADE 6

578.42 B452

Below zero / Mycio-Mommers, Luba. (Ed.).

Kanata, ON: Canadian Wildlife Federation, 2009.

Subjects: Snow ecology – Study and teaching. Winter – Study and teaching. Adaptation (Biology) – Study and teaching. Animal ecology – Study and teaching. Plant ecology – Study and teaching.

Summary: Designed to complement the *Project WILD Activity Guide*, the activities in this book promote awareness, knowledge, skills, and responsible behaviour towards wildlife in winter environments. The activity guide contains four sections: Awareness and Appreciation, Habitat and Ecological Principles, Adaptation, and Responsible Human Actions.

577 B615

Biodiversity perspectives

Regina, SK: Keewatin Publications, 2005.

Subjects: Biodiversity – Canada. Biodiversity – Saskatchewan. Biodiversity – Prairie Provinces. Environmental protection.

Summary: This resource provides a broad overview of biodiversity-related issues from global, regional, and national perspectives.

577.68 C316

The bulrush helps the pond = Otawask wicihtaw tawanipeyanik / Carriere, Ken.

Saskatoon, SK: Gabriel Dumont Institute, 2002.

Subjects: Wetland ecology – Juvenile literature. Cree Indians – Juvenile literature.

Summary: Written in Swampy Cree and English, this book provides students with an appreciation of the diversity and fragility of the prairie wetland ecosystem. The author describes the bulrushes through the seasons and how the various animals, insects, and birds rely on the bulrushes and ponds for survival. The book demonstrates that traditional First Nations knowledge is parallel to western science.

Dot to Dot in the Sky Series

398.26 G146

Dot to dot in the sky : stories of the moon / Galat, Joan Marie.

North Vancouver, BC: Walrus Books, 2004.

Subjects: Moon – Folklore – Juvenile literature. Moon – Juvenile literature.

Summary: People around the world have looked up in awe at the Moon and told stories to explain its mysteries. They imagined that the Moon represented people or animals and believed it to be the cause of strange behaviour. This book is a collection of stories about the Moon from many different cultures.

- Annotations have been excerpted from book descriptions provided by the publishers and from bibliographies distributed by the Saskatchewan Ministry of Education.

523.4 G146

Dot to dot in the sky : stories of the planets / Galat, Joan Marie. Bennett, Lorna.

North Vancouver, BC: Whitecap Books, 2003.

Subjects: Planets – Mythology – Juvenile literature. Astronomy – Juvenile literature.

Summary: Everyone knows the names of the planets, but how many can recount the fascinating myths associated with them or know how to find them? This book combines mythology with astronomy tips to help astronomers of any age view the planets in the night sky.

372.35 R652

Electricity and magnetism : stop faking it! : finally understanding science so you can teach it /

Robertson, William C.

Arlington, VA: NSTA Press, 2005.

Subjects: Electricity. Magnetism.

Summary: This resource contains information and activities on electricity, circuits and electronics, and magnetism. This guide addresses teachers' concerns about content and helps to fill in any gaps of understanding that may exist. Emphasis is on "getting" the science rather than memorizing facts and formulas.

508 P712

From pole to pole [DVD] (Planet Earth. Volume 1).

New York, NY: BBC, 2007.

Subjects: Animals. Habitat (Ecology). Biotic communities. Mountain ecology. Aquatic ecology.

Summary: This program examines the planet as a whole and the factors that shaped its history. Sun and fresh water govern the lives of all plants and animals on earth and define their habitats. Seasons are created by the tilt of the Earth's orbit to the sun. A polar bear must prepare her cubs for the journey across the frozen sea. Habitats discussed in the program include the ocean, the desert, and the Arctic.

570.282 K89

Hidden worlds : looking through a scientist's microscope / Kramer, Stephen P.

Boston, MA: Houghton Mifflin, 2001.

Subjects: Microscopy – Juvenile literature. Microscopes – Juvenile literature.

Summary: Photographer Dennis Kunkel uses powerful microscopes to reveal the hidden beauty of everyday objects: a crystal of sugar, a grain of pollen, a mosquito's foot, and the delicate hairs on a blade of grass. Students will learn how Kunkel became interested in microscopes, how he prepares specimens for study, and how different microscopes work.

507.12 T564

How to ... write to learn science (2nd ed.) / Tierney, Bob. Dorroh, John.

Arlington, VA: NSTA Press, 2004.

Subjects: Science – Study and teaching (Secondary). English language – Composition and exercises – Study and teaching (Secondary).

Summary: This book offers inspiring techniques to coax out the reluctant scientists in your classroom. It provides classroom-tested writing activities that you can: introduce during the first week of class to build positive attitudes among students toward the subject of science, and toward you; use at different stages in a learning unit and for quick review; and adapt to help students write for different audiences, write to better understand the textbook, and write lab reports, research papers, and essay tests.

507.1 K98

Inquiring safely : a guide for middle school teachers / Kwan, Terry. Texley, Juliana.

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching (Middle school). Science rooms and equipment – Safety measures. Laboratories – Safety measures.

Summary: This book will help you develop better approaches to equip labs, dispose of chemicals and other hazardous materials, maintain documentation, and organize field trips. Some chapters cover specific disciplines, such as physical science, chemistry, Earth science, and biology. Others deal with general topics such as supervising students' online activities, accommodating students with special needs, and working with volunteers.

398.208997 C126

Keepers of the earth : Native American stories and environmental activities for children /

Caduto, Michael J. Bruchac, Joseph.

Golden, CO: Fulcrum Pub., 1997.

Subjects: Indians of North America – Folklore. Indian mythology – North America. Nature craft.

Summary: This compilation of First Nations stories, each with related activities, promotes responsible stewardship toward Earth. This includes learning about North American First Nations and Inuit cultures through a variety of activities that include the themes of creation, fire, earth, wind, and sky.

520 L897

The kids book of the night sky / Love, Ann. Drake, Jane.

Toronto, ON: Kids Can Press, 2004.

Subjects: Astronomy – Juvenile literature.

Summary: This book offers a range of information and ideas for sky watching. It includes a game of Night Sky I Spy, ideas on how to keep an astronomer's log, traditional narratives about the night sky from different cultures, and information about the northern lights, eclipses, and much more.

581.3 L722

Life processes of plants [DVD]

Hamilton, NJ: Cambridge Educational, 2005.

Subjects: Plant physiology.

Summary: This program investigates the major differences and the striking similarities between plants and animals in areas such as respiration, reproduction and what they consume. It includes cell structure and plant evolution.

577.6 W958

Native plants, water and us! / Wruck, Garth. Gerein, Katherine.

Saskatoon, SK: Native Plant Society of Saskatchewan, 2003.

Subjects: Aquatic ecology – Saskatchewan. Aquatic plants – Saskatchewan.

Summary: This booklet offers general information on aquatic ecosystems, their functions, and the important roles that native plants play within them. This resource focuses on aquatic ecosystems and the associated native vegetation in an agricultural context.

599.097124 N285

Natural neighbours : selected mammals of Saskatchewan / Saskatchewan Environment and Resource Management.

Regina, SK: Canadian Plains Research Center, 2001.

Subjects: Mammals – Saskatchewan.

Summary: This book focuses on various mammals found in Saskatchewan and describes their appearance, habits, food, habitat, survival strategies, ecological relationships, status, and range.

523 D548

Nightwatch : a practical guide to viewing the universe (4th ed.) / Dickinson, Terence.

Richmond Hill, ON: Firefly Books, 2006.
Subjects: Astronomy – Observers’ manual.

Summary: This guide to the night skies combines full-colour photographs, informative text, charts, boxes, and tables to create an excellent reference book for both students and teachers. The author clearly presents information on the differences among planets, comets, satellites, and stars; the ways to use star patterns for determining time and direction; and the criteria for choosing binoculars or a telescope.

500 P361

Pearson Saskatchewan science 6 : student text / Johanson, Terry. Mohr, Penny. Treptau, Christine. View, Ted. Wallace, Cathy.

Pearson Saskatchewan science 6 : teacher’s resource / Campbell, Steve.

Toronto, ON: Pearson Education, 2009.

Subjects: Science – Textbooks. Science – Study and teaching (Middle school).

Summary: At the beginning of each unit in this textbook, the “Big Ideas” box sets the focus for the unit. Throughout the unit, opportunities are provided for students to work together, communicate ideas, perform experiments, and carry out library and Internet research. Key vocabulary is bolded throughout the unit and an explanation of each term is provided. First Nations and Métis content, perspectives, and ways of knowing are an integral part of this Saskatchewan science textbook. The teacher’s resource provides additional background information, supplies lists, assessment tools such as rubrics, and safety tips.

639.9 P964

Project WILD activity guide

Ottawa, ON: Canadian Wildlife Federation, 2002.

Subjects: Wildlife conservation – Study and teaching – Canada. Animals – Study and teaching – Canada. Environmental conservation – Canada.

Summary: This guide features activities designed to develop awareness, knowledge, skills, and responsible behaviour towards wildlife and the environment. Through many of the activities, students are engaged in informed decision making in which they consider the impact of their actions on the ecosystem. Each multi-grade activity includes objectives, method, background information, materials and procedures, as well as extension and evaluation ideas.

507.1 S128

Safety in the science classroom : kindergarten to grade 12

Edmonton, AB: Alberta Education, 2006.

Subjects: Science – Study and teaching – Safety measures. Safety education. Safety measures. Science rooms and equipment – Safety measures.

Summary: This is a comprehensive manual regarding science safety. While Part A focuses on general safety management, Part B contains specific information around safety, storage, and management of chemical, biological, and physical hazards in the classroom relevant to science teachers at all grade levels. Appendices include examples of science safety rules and procedures, sample student safety contracts, and a chemical laboratory safety inspection checklist.

598.097124 S642

Saskatchewan birds / Smith, Alan R.

Edmonton, AB: Lone Pine Publishing, 2001.

Subjects: Birds – Saskatchewan – Identification. Bird watching – Saskatchewan.

Summary: Over 145 species of birds are described in this resource. The book is divided into major categories such as diving birds, waterfowl, birds of prey, and owls. Each entry contains a drawing, a map, and a description of the bird’s habits and characteristics.

428.24 S416

Science for English language learners : K-12 classroom strategies / Fathman, Ann K. Crowther, David. (Eds.).

Arlington, VA: NSTA Press, 2006.

Subjects: English language – Study and teaching as a second language. Science – Study and teaching.

Summary: This resource is designed to assist teachers to implement inquiry-based science while increasing learning opportunities for English Language Learners (ELL). The book provides strategies for planning, teaching, assessing, and extending learning. While the book is specifically designed for ELL students, many of the strategies can benefit all students in the classroom.

372.35 C187

Science notebooks : writing about inquiry / Campbell, Brian. Fulton, Lori.

Portsmouth, NH: Heinemann, 2003.

Subjects: Science – Study and teaching (Elementary). School notebooks. Learning by discovery.

Summary: This book serves as a ready resource of strategies and methods for teachers to incorporate science notebooks into their school day. Along the way, the book includes: classroom vignettes that demonstrate how science notebooks actually function in class, student samples that allow readers to see student entries at a variety of levels, and thinking points throughout that link ideas presented in the book to practice and philosophical beliefs.

578 K29

Strange new species : astonishing discoveries of life on Earth / Kelsey, Elin.

Toronto, ON: Maple Tree Press, 2005.

Subjects: Biology – Juvenile literature. Species – Juvenile literature. Discoveries in science – Juvenile literature.

Summary: This book includes information about how new technologies allow scientists to explore parts of the Earth that were previously inaccessible, and how scientists classify and research new species. The author incorporates open-ended questions related to current social issues such as cloning, genetically modified organisms, and transgenic animals.

372.357 T253

Teaching green : the middle years : hands-on learning in grades 6-8 / Grant, Tim. Littlejohn, Gail. (Eds.).

Gabriola, BC: New Society Publishers, 2004.

Subjects: Environmental education. Ecology – Study and teaching (Middle school). Biotic communities – Study and teaching (Middle school). Environmental protection – Study and teaching (Middle school).

Summary: Organized into green teaching categories, the book offers a host of ideas for hands-on learning about biodiversity, ecology, resource consumption, green technology and the world around us.

629.454 T443

Team Moon : how 400,000 people landed Apollo 11 on the moon / Thimmesh, Catherine.

Boston, MA: Houghton Mifflin, 2006.

Subjects: Space flight to the moon.

Summary: Culled from direct quotes from the people behind the scenes, NASA transcripts, national archives and NASA photos, the whole story of Apollo 11 and the first moon landing emerges.

508 P712 OVERSIZE

Time Planet Earth : an illustrated history / Knauer, Kelly. (Ed.).

New York, NY: Time, 2008.

Subjects: Natural history – Pictorial works. Earth – Pictorial works.

Summary: This resource covers many topics in the renewed science curriculum. Using the ancient Greek division of the world using spheres, the authors examine the atmosphere (air), pedosphere (land), biosphere (living), hydrosphere (water), cryosphere (frozen), and geosphere (subterranean). The animals, plants, and landforms that exist within each sphere are described.

670 S631

Transformed : how everyday things are made / Slavin, Bill. Slavin, Jim.

Toronto, ON: Kids Can Press, 2005.

Subjects: Manufactures – Juvenile literature.

Summary: Slavin shows the process of how objects are changed from raw materials to the finished products. He uses common items that students are familiar with, such as baseballs. Each two-page spread describes how the object is made by breaking the process down into steps.

578.012 S912

Tree of life : the incredible biodiversity of life on earth / Strauss, Rochelle.

Toronto, ON: Kids Can Press, 2004.

Subjects: Biology – Classification – Juvenile literature. Biodiversity – Juvenile literature.

Summary: A child-friendly introduction to biodiversity that shows how living things are classified, or organized, into five branches.

507.12 G466

Understanding models in earth and space science / Gilbert, Stephen W. Ireton, Shirley Watt.

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching. Science – Mathematical models. Mathematics – Study and teaching. Models and modelmaking.

Summary: Models help students to make and test predictions, to use logic, and to construct understanding about how things work. Chapters include: Understanding Models; Similes, Analogies, and Metaphors; Concrete Models; Mathematical Models; Computer Technology and Modeling; Inquiry and Model Building; and, Models and Teaching the Nature of Science.

SCIENCE GRADE 7

779 B163

Beauty in the rocks : the photography of David M. Baird / Baird, David M.

Victoria, BC: TouchWood Editions, 2006.

Subjects: Nature photography. Formations (Geology) – Pictorial works.

Summary: Using black-and-white photography, author David Baird illustrates various rock formations from across Canada and the world. Pattern, texture, and detail in the photographs provide examples of how rock is formed and shaped by the forces of nature.

578.42 B452

Below zero / Mycio-Mommers, Luba. (Ed.).

Kanata, ON: Canadian Wildlife Federation, 2009.

Subjects: Snow ecology – Study and teaching. Winter – Study and teaching. Adaptation (Biology) – Study and teaching. Animal ecology – Study and teaching. Plant ecology – Study and teaching.

Summary: Designed to complement the *Project WILD Activity Guide*, the activities in this book promote awareness, knowledge, skills, and responsible behaviour towards wildlife in winter environments. The activity guide contains four sections: Awareness and Appreciation, Habitat and Ecological Principles, Adaptation, and Responsible Human Actions.

577 B615

Biodiversity perspectives

Regina, SK: Keewatin Publications, 2005.

Subjects: Biodiversity – Canada. Biodiversity – Saskatchewan. Biodiversity – Prairie Provinces. Environmental protection.

Summary: This resource provides a broad overview of biodiversity-related issues from global, regional, and national perspectives.

577.68 C316

The bulrush helps the pond = Otawask wicihtaw tawanipeyanik / Carriere, Ken.

Saskatoon, SK: Gabriel Dumont Institute, 2002.

Subjects: Wetland ecology – Juvenile literature. Cree Indians – Juvenile literature.

Summary: Written in Swampy Cree and English, this book provides students with an appreciation of the diversity and fragility of the prairie wetland ecosystem. The author describes the bulrushes through the seasons and how the various animals, insects, and birds rely on the bulrushes and ponds for survival. The book demonstrates that traditional First Nations knowledge is parallel to western science.

577.097124 E19

The ecoregions of Saskatchewan / Acton, D. F. Padbury, G. A. Stushnoff, C. T.

Regina, SK: Canadian Plains Research Center, 1998.

Subjects: Ecology – Saskatchewan. Biotic communities – Saskatchewan.

Summary: This exploration of Saskatchewan's ecoregions and ecozones emphasizes the relationship between the environment and its inhabitants. The book provides a description of the physical setting and biological features of each ecozone including information on climate, landforms and soils, groundwater, vegetation, and wildlife.

363.7 E78

The essential atlas of ecology

Hauppauge, NY: Barron's Educational Series, 2005.

Subjects: Human ecology. Biotic communities. Pollution. Ecology.

Summary: This ecological reference book offers informative text, photos, diagrams, illustrations, and charts related to the Earth's environment and the interactions of animals and plants within the environment.

507.1 E93

Everyday assessment in the science classroom / Atkin, J. Myron. Coffey, Janet E. (Eds.).

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching – Evaluation. Science – Ability testing.

Summary: This collection of ten essays provides insight into how ongoing classroom assessment positively impacts student learning. Topics include: the importance of everyday assessment; assessment for learning; examining students' work; assessment of inquiry; using questioning to assess and foster student thinking; involving students in assessment; and reporting progress.

550 F811

Fragile earth : views of a changing world

London, England: Collins, 2008.

Subjects: Natural disasters. Meteorology. Earth sciences. Nature – Effect of human beings on.

Summary: Through the use of before and after photographs, the reader is taken on a journey of the Earth. Each section briefly describes the natural world and provides information about phenomena such as the deadliest landslides in the world. Global and topographical maps pinpoint locations where the natural events take place. Cross-sections of different events, such as a tropical storm, indicate the various forces that are in action as the natural event occurs.

508 P712

From pole to pole [DVD] (Planet Earth. Volume 1).

New York, NY: BBC, 2007.

Subjects: Animals. Habitat (Ecology). Biotic communities. Mountain ecology. Aquatic ecology.

Summary: This program examines the planet as a whole and the factors that shaped its history. Sun and fresh water govern the lives of all plants and animals on earth and define their habitats. Seasons are created by the tilt of the Earth's orbit to the sun. A polar bear must prepare her cubs for the journey across the frozen sea. Habitats discussed in the program include the ocean, the desert, and the Arctic.

551.7 S884

Geological history of Saskatchewan / Storer, John.

Regina, SK: Government of Saskatchewan, 1989.

Subjects: Geology – Saskatchewan.

Summary: The book examines Saskatchewan's geological evolution through five major stages leading to the present day. The book provides a framework to understanding Saskatchewan's life, landscape, and resources.

577.4 B615

Grasslands [DVD]

Wynnewood, PA: Schlessinger Media, 2003.

Subjects: Grasslands. Biotic communities. Savannas.

Summary: This program explores the characteristics of a grassland biome. It illustrates the effect of climate on soil type, vegetation, and wildlife. Abiotic and biotic factors are introduced, and a straightforward demonstration clarifies their relationship. The program addresses agricultural practices that support or destroy grassland habitats.

971.243 G745

The Great Sand Hills : a prairie oasis / Grambo, Rebecca.

Regina, SK: Nature Saskatchewan, 2007.

Subjects: Natural history – Saskatchewan – Great Sand Hills. Prairie ecology – Saskatchewan – Great Sand Hills. Endangered ecosystems – Saskatchewan – Great Sand Hills.

Summary: This resource looks at the biodiversity found in Saskatchewan's Great Sand Hills, and at the pressures for development of the natural gas resources in this region.

577.68 G946

Guide to wetlands / Dugan, Patrick. (Ed.).

Richmond Hill, ON: Firefly Books, 2005.

Subjects: Wetland ecology. Wetlands.

Summary: This wetland guide includes information on the ecology of wetlands, how plants and animals adapt to their changing habitats, factors that lead to the destruction of wetland environments, and conservation suggestions.

507.12 T564

How to ... write to learn science (2nd ed.) / Tierney, Bob. Dorroh, John.

Arlington, VA: NSTA Press, 2004.

Subjects: Science – Study and teaching (Secondary). English language – Composition and exercises – Study and teaching (Secondary).

Summary: This book offers inspiring techniques to coax out the reluctant scientists in your classroom. It provides classroom-tested writing activities that you can: introduce during the first week of class to build positive attitudes among students toward the subject of science, and toward you; use at different stages in a learning unit and for quick review; and adapt to help students write for different audiences, write to better understand the textbook, and write lab reports, research papers, and essay tests.

507.1 K98

Inquiring safely : a guide for middle school teachers / Kwan, Terry. Texley, Juliana.

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching (Middle school). Science rooms and equipment – Safety measures. Laboratories – Safety measures.

Summary: This book will help you develop better approaches to equip labs, dispose of chemicals and other hazardous materials, maintain documentation, and organize field trips. Some chapters cover specific disciplines, such as physical science, chemistry, Earth science, and biology. Others deal with general topics such as supervising students' online activities, accommodating students with special needs, and working with volunteers.

577 I61

Interdependence [DVD]

Hamilton, NJ: Cambridge Educational, 2005.

Subjects: Biotic communities. Biogeochemical cycles. Conservation biology. Ecology.

Summary: On planet Earth, no living thing is an island. This program identifies the world's ecosystems as it explains the flow of energy and the cycling of matter within them. Terms such as biosphere and biome, biotic and abiotic, autotrophs (producers) and heterotrophs (consumers), and the food web are defined, and ecology and conservation as fields of study are explored.

551.21 D687

Into the volcano : a volcano researcher at work / Donovan-O'Meara, Donna.

Toronto, ON: Kids Can Press, 2005.

Subjects: Volcanoes – Juvenile literature.

Summary: The author uses her expertise as a volcano researcher, writer, and photographer, to take readers on an exploration of volcanoes. She explains the formation and different kinds of volcanoes.

398.208997 C126

Keepers of life : discovering plants through native stories and earth activities for children /

Caduto, Michael J. Bruchac, Joseph.

Saskatoon, SK: Fifth House, 1994.

Subjects: Indians of North America – Legends. Botany – Ecology – Study and teaching (Elementary). Nature study – Activity programs.

Summary: This resource contains traditional First Nations stories, information, and activities to reinforce the need for balance in ecology. The book looks at the relationships among people and the natural world, and provides opportunities for the integration of literary response and scientific investigation.

581.3 L722

Life processes of plants [DVD]

Hamilton, NJ: Cambridge Educational, 2005.

Subjects: Plant physiology.

Summary: This program investigates the major differences and the striking similarities between plants and animals in areas such as respiration, reproduction and what they consume. It includes cell structure and plant evolution.

577.6 W958

Native plants, water and us! / Wruck, Garth. Gerein, Katherine.

Saskatoon, SK: Native Plant Society of Saskatchewan, 2003.

Subjects: Aquatic ecology – Saskatchewan. Aquatic plants – Saskatchewan.

Summary: This booklet offers general information on aquatic ecosystems, their functions, and the important roles that native plants play within them. This resource focuses on aquatic ecosystems and the associated native vegetation in an agricultural context.

599.097124 N285

Natural neighbours : selected mammals of Saskatchewan / Saskatchewan Environment and Resource Management.

Regina, SK: Canadian Plains Research Center, 2001.

Subjects: Mammals – Saskatchewan.

Summary: This book focuses on various mammals found in Saskatchewan and describes their appearance, habits, food, habitat, survival strategies, ecological relationships, status, and range.

500 P361

Pearson Saskatchewan science 7 : student text / Brockman, Annette. Doepker, Chris. Stephenson, Elizabeth. View, Ted. Wallace, Michelle.

Pearson Saskatchewan science 7 : teacher's resource / Brockman, Annette.

Toronto, ON: Pearson Education, 2009.

Subjects: Science – Textbooks. Science – Study and teaching (Middle school).

Summary: At the beginning of each unit in this textbook, the “Big Ideas” box sets the focus for the unit. Throughout the unit, opportunities are provided for students to work together, communicate ideas, perform experiments, and carry out library and Internet research. Key vocabulary is bolded throughout the unit and an explanation of each term is provided. First Nations and Métis content, perspectives, and ways of knowing are an integral part of this Saskatchewan science textbook.

584.3 L419

Prairie phoenix : liliium philadelphicum, the red lily in Saskatchewan / Lawrence, Bonnie J. Leighton, Anna L.

Regina, SK: Nature Saskatchewan, 2005.

Subjects: Lilies – Saskatchewan.

Summary: This book features over 100 colour photographs, maps and charts that display the beauty and diversity of Saskatchewan's most beloved wild flower. Learn about the lore, the life cycle and the adaptations of the Red Lily in natural habitats. Discover how this plant endures the harsh extremes of the prairie climate and how fire serves to rejuvenate its growth.

639.9 P964

Project WILD activity guide

Ottawa, ON: Canadian Wildlife Federation, 2002.

Subjects: Wildlife conservation – Study and teaching – Canada. Animals – Study and teaching – Canada. Environmental conservation – Canada.

Summary: This guide features activities designed to develop awareness, knowledge, skills, and responsible behaviour towards wildlife and the environment. Through many of the activities, students are engaged in informed decision making in which they consider the impact of their actions on the ecosystem. Each multi-grade activity includes objectives, method, background information, materials and procedures, as well as extension and evaluation ideas.

552 C672

Rocks and fossils : a visual guide / Coenraads, Robert Raymond.

Richmond Hill, ON: Firefly Books, 2005.

Subjects: Rocks. Fossils. Geology.

Summary: This resource reviews the Earth's geological history, the characteristics of various types of rock, and the formation of rocks and fossils.

507.1 S128

Safety in the science classroom : kindergarten to grade 12

Edmonton, AB: Alberta Education, 2006.

Subjects: Science – Study and teaching – Safety measures. Safety education. Safety measures.

Science rooms and equipment – Safety measures.

Summary: This is a comprehensive manual regarding science safety. While Part A focuses on general safety management, Part B contains specific information around safety, storage, and management of chemical, biological, and physical hazards in the classroom relevant to science teachers at all grade levels. Appendices include examples of science safety rules and procedures, sample student safety contracts, and a chemical laboratory safety inspection checklist.

551.375 J79

The sand dunes of Lake Athabasca : your adventure in learning / Jonker, Peter. Rowe, J. S.

Saskatoon, SK: University Extension Press, 2001.

Subjects: Sand dunes – Athabasca, Lake, Region (Sask. and Alta.). Natural history – Athabasca, Lake, Region (Sask. and Alta.).

Summary: This resource provides an example of ecosystem research in a Saskatchewan context. Following a description of the landscape and how it was formed, the distinctive species of the region are discussed. Adaptations to the environment by a variety of mammals, birds, amphibians, insects, fish, and vegetation are the focus of the book. The human impact is also discussed.

582.13 K41

Saskatchewan wayside wildflowers / Kershaw, Linda J.

Edmonton, AB: Lone Pine Publishing, 2003.

Subjects: Wild flowers – Saskatchewan.

Summary: Over one hundred Saskatchewan wildflowers, divided into five broad groups, are described in this resource. Each of the one-page layouts contains notes on the edibility and medicinal uses, blooming times, and habitats where the plants are found.

428.24 S416

Science for English language learners : K-12 classroom strategies / Fathman, Ann K. Crowther, David. (Eds.).

Arlington, VA: NSTA Press, 2006.

Subjects: English language – Study and teaching as a second language. Science – Study and teaching.

Summary: This resource is designed to assist teachers to implement inquiry-based science while increasing learning opportunities for English Language Learners (ELL). The book provides strategies for planning, teaching, assessing, and extending learning. While the book is specifically designed for ELL students, many of the strategies can benefit all students in the classroom.

372.35 C187

Science notebooks : writing about inquiry / Campbell, Brian. Fulton, Lori.

Portsmouth, NH: Heinemann, 2003.

Subjects: Science – Study and teaching (Elementary). School notebooks. Learning by discovery.

Summary: This book serves as a ready resource of strategies and methods for teachers to incorporate science notebooks into their school day. Along the way, the book includes: classroom vignettes that demonstrate how science notebooks actually function in class, student samples that allow readers to see student entries at a variety of levels, and thinking points throughout that link ideas presented in the book to practice and philosophical beliefs.

372.357 T253

Teaching green : the middle years : hands-on learning in grades 6-8 / Grant, Tim. Littlejohn, Gail. (Eds.).

Gabriola, BC: New Society Publishers, 2004.

Subjects: Environmental education. Ecology – Study and teaching (Middle school). Biotic communities – Study and teaching (Middle school). Environmental protection – Study and teaching (Middle school).

Summary: Organized into green teaching categories, the book offers a host of ideas for hands-on learning about biodiversity, ecology, resource consumption, green technology and the world around us.

508 P712 OVERSIZE

Time Planet Earth : an illustrated history / Knauer, Kelly. (Ed.).

New York, NY: Time, 2008.

Subjects: Natural history – Pictorial works. Earth – Pictorial works.

Summary: This resource covers many topics in the renewed science curriculum. Using the ancient Greek division of the world using spheres, the authors examine the atmosphere (air), pedosphere (land), biosphere (living), hydrosphere (water), cryosphere (frozen), and geosphere (subterranean). The animals, plants, and landforms that exist within each sphere are described.

670 S631

Transformed : how everyday things are made / Slavin, Bill. Slavin, Jim.

Toronto, ON: Kids Can Press, 2005.

Subjects: Manufactures – Juvenile literature.

Summary: Slavin shows the process of how objects are changed from raw materials to the finished products. He uses common items that students are familiar with, such as baseballs. Each two-page spread describes how the object is made by breaking the process down into steps.

507.12 G466

Understanding models in earth and space science / Gilbert, Stephen W. Ireton, Shirley Watt.
Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching. Science – Mathematical models. Mathematics – Study and teaching. Models and modelmaking.

Summary: Models help students to make and test predictions, to use logic, and to construct understanding about how things work. Chapters include: Understanding Models; Similes, Analogies, and Metaphors; Concrete Models; Mathematical Models; Computer Technology and Modeling; Inquiry and Model Building; and, Models and Teaching the Nature of Science.

599.786 F251

Wapusk : white bear of the North / Fast, Dennis.

Winnipeg, MB: Heartland Associates, 2003.

Subjects: Polar bear – Pictorial works.

Summary: This resource outlines some of the challenges faced by the polar bear, or wapusk, white bear of the north. Environmental dangers such as toxic pollutants and global warming encroach on and threaten this species. The photography captures the life cycle of the polar bear within its natural environment.

581.76 L184

Water and wetland plants of the Prairie Provinces / Lahring, Heinjo.

Regina, SK: Canadian Plains Research Center, 2003.

Subjects: Aquatic plants – Prairie Provinces. Wetland plants – Prairie Provinces. Wetland ecology – Prairie Provinces.

Summary: This field guide presents identification keys, descriptive information, and colour photographs of water and wetland plants in Saskatchewan, Alberta, Manitoba, and the northern United States. It provides a relevant, easy-to-use guide for field trips to wetland ecosystems.

SCIENCE GRADE 8

612 W183

Body : an amazing tour of human anatomy / Walker, Richard.

New York, NY: Dorling Kindersley, 2005.

Subjects: Human body – Juvenile literature. Human anatomy – Juvenile literature.

Summary: Three-dimensional images, constructed by scanning cross-sections of a human cadaver, provide a detailed view of the major systems and regions of the human body. The diagrams and acetate overlays help to illustrate the complexity of the human body. The book also includes a CD with additional 360 degree animations.

Body Focus Series

612 B668

Bones : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Bones.

Summary: This book explains the structure of bones and joints, the different illnesses and injuries that can affect our bones - from fractures to arthritis - and outlines ways we can keep our bones healthy.

612 B668

Brain : injury, illness and health / Parker, Steve.

Chicago, IL: Heinemann, 2003.

Subjects: Brain. Neurophysiology. Brain – Diseases.

Summary: This book explains the structure of the brain, the different illnesses and injuries that can affect our brains - from headaches to strokes - and outlines ways we can keep our brains healthy.

612 B668

The digestive system : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Digestive organs. Digestion.

Summary: This book explores the structure of the different parts of the digestive system, looking at how they work together to digest the food we eat. It explains the different illnesses and injuries that can affect your digestion, from indigestion to ulcers, and outlines ways to keep healthy, including the importance of a balanced diet.

612 B668

Ears : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Ear. Hearing. Ear – Diseases.

Summary: This book explains the structure of the ears, the different illnesses and injuries that can affect our ears - from cauliflower ears to deafness - and outlines ways we can keep our ears healthy.

612 B668

Eyes : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Vision. Vision disorders.

Summary: This book explains the structure of the eyes, the different illnesses and injuries that can affect our eyes - from conjunctivitis to blindness - and outlines ways we can keep our eyes healthy.

612 B668

Heart and blood : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Cardiovascular system. Blood.

Summary: This book explores the structure of the heart and circulatory system, the different illnesses and injuries that can affect our heart and blood - from anemia to heart attacks - and outlines ways we can keep our body healthy.

612 B668

Hormones : injury, illness and health / Parker, Steve.

Chicago, IL: Heinemann, 2003.

Subjects: Endocrine glands. Hormones.

Summary: Hormones explores the functions and structure of the endocrine system, looking at how its parts work together to send chemical messengers around our bodies. It explains the different illnesses and injuries that can affect our hormones, from diabetes to goiter, and outlines ways to keep your body healthy.

612 B668

The immune system : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Immune system – Juvenile literature.

Summary: This book explores how the immune system functions and how it helps our bodies stay healthy. It explains the structure of the immune system, the different illnesses and injuries that can affect our immune system, and ways we can keep our immune system healthy.

612 B668

Lungs : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Lungs. Respiratory organs.

Summary: This book provides information about the respiratory system, discussing its different parts, including the mouth and nose, pharynx and larynx, and lungs, and looking at some of the things that can go wrong with the respiratory system.

612 B668

Muscles : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Muscles.

Summary: This book explains the structure of the muscles, the different illnesses and injuries that can affect our muscles - from cramp to paralysis - and outlines ways we can keep our muscles healthy.

612 B668

The reproductive system : injury, illness and health / Parker, Steve.

Chicago, IL: Heinemann, 2003.

Subjects: Human reproduction. Generative organs.

Summary: This book explores the structure of the male and female reproductive systems, looking at how they work together to create new life. It explains the different illnesses and injuries that can affect the reproductive system, from sexually transmitted diseases to problems during pregnancy, and outlines ways to keep healthy.

612 B668

Spinal cord and nerves : injury, illness and health / Parker, Steve.

Chicago, IL: Heinemann, 2003.

Subjects: Nervous system. Nerves. Spinal cord.

Summary: This book explains the structure of the spinal cord and nerves, the different illnesses and injuries that can affect our spinal cord and nerves, from a slipped disk to spinal meningitis, and outlines ways we can keep our spinal cord and nerves healthy.

571.6 C393

Cells : the building blocks of life [DVD] Angel, Charlotte. Boyd, Kyle. (Eds.).

Lawrenceville, NJ: Cambridge Educational, 2006.

Subjects: Cells – Study and teaching (Middle school). Cells – Study and teaching (Secondary).

Summary: Viewers receive an introduction to modern cell theory. This program presents and illustrates various terms related to cell structure and function including the nucleus, ribosomes, mitochondria, the Golgi complex, and lysosomes. Cell division is discussed briefly.

577.097124 E19

The ecoregions of Saskatchewan / Acton, D. F. Padbury, G. A. Stushnoff, C. T.

Regina, SK: Canadian Plains Research Center, 1998.

Subjects: Ecology – Saskatchewan. Biotic communities – Saskatchewan.

Summary: This exploration of Saskatchewan's ecoregions and ecozones emphasizes the relationship between the environment and its inhabitants. The book provides a description of the physical setting and biological features of each ecozone including information on climate, landforms and soils, groundwater, vegetation, and wildlife.

612 E78

Essential atlas of physiology

Hauppauge, NY: Barron's Educational, 2005.

Subjects: Human physiology. Human anatomy. Medicine, Popular.

Summary: Within this reference book, photographs, diagrams, and illustrations combine with explanatory text to describe the human body and its functions. Specific topics include the digestive system, the respiratory system, the cardiovascular system, the nervous system, and the muscular system; as well as the urinary, endocrine, reproductive, and lymphatic systems.

507.1 E93

Everyday assessment in the science classroom / Atkin, J. Myron. Coffey, Janet E.

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching – Evaluation. Science – Ability testing.

Summary: This collection of ten essays provides insight into how ongoing classroom assessment positively impacts student learning. Topics include: the importance of everyday assessment; assessment for learning; examining students' work; assessment of inquiry; using questioning to assess and foster student thinking; involving students in assessment; and reporting progress.

612.82 N558

The great brain book : an inside look at the inside of your head / Newquist, H. P.

New York, NY: Scholastic Reference, 2004.

Subjects: Brain.

Summary: Beginning with a historical look at the brain and how it was perceived, this book proceeds to examine the various parts, structure, and functions of the brain, as well as the ways in which we learn and remember. Later chapters look at the care and feeding of the brain, problems that may arise with the brain, and the future possibilities of brain research.

971.243 G745

The Great Sand Hills : a prairie oasis / Grambo, Rebecca.

Regina, SK: Nature Saskatchewan, 2007.

Subjects: Natural history – Saskatchewan – Great Sand Hills. Prairie ecology – Saskatchewan – Great Sand Hills. Endangered ecosystems – Saskatchewan – Great Sand Hills.

Summary: This resource looks at the biodiversity found in Saskatchewan's Great Sand Hills, and at the pressures for development of the natural gas resources in this region.

612 W183

Guide to the human body / Walker, Richard.

Richmond Hill, ON: Firefly Books, 2004.

Subjects: Human anatomy. Human physiology. Medicine, Popular.

Summary: This illustrated guide to the human body is a useful, quick-reference tool. The first half presents information on the anatomy of the human body and on body systems. The second half of the handbook is organized as a medical encyclopedia, providing brief definitions of common medical terms and conditions.

553.7 H434

Healthy water, healthy people : water quality educators guide

Bozeman, MT: Watercourse, 2003.

Subjects: Water quality. Water resources development.

Summary: The purpose of this resource is to raise educators' awareness and understanding of water quality topics and issues. It seeks to clarify the relationship between water quality, and personal, public, and environmental health.

570.282 K89

Hidden worlds : looking through a scientist's microscope / Kramer, Stephen P.

Boston, MA: Houghton Mifflin, 2001.

Subjects: Microscopy – Juvenile literature. Microscopes – Juvenile literature.

Summary: Photographer Dennis Kunkel uses powerful microscopes to reveal the hidden beauty of everyday objects: a crystal of sugar, a grain of pollen, a mosquito's foot, and the delicate hairs on a blade of grass. Students will learn how Kunkel became interested in microscopes, how he prepares specimens for study, and how different microscopes work.

507.12 T564

How to ... write to learn science (2nd ed.) / Tierney, Bob. Dorroh, John.

Arlington, VA: NSTA Press, 2004.

Subjects: Science – Study and teaching (Secondary). English language – Composition and exercises – Study and teaching (Secondary).

Summary: This book offers inspiring techniques to coax out the reluctant scientists in your classroom. It provides classroom-tested writing activities that you can: introduce during the first week of class to build positive attitudes among students toward the subject of science, and toward you; use at different stages in a learning unit and for quick review; and adapt to help students write for different audiences, write to better understand the textbook, and write lab reports, research papers, and essay tests.

Human Body in Action Series

612 H918

Cells [DVD]

Wynnewood, PA: Schlessinger Media, 2006.

Subjects: Cells – Juvenile films. Body, Human – Juvenile films.

Summary: Set against the backdrop of a soccer team in action, *Cells* takes a close-up look at the smallest living unit in the human body. Students will discover that, while most cells are very similar in structure and equipment, each type of cell has its own special function.

612 H918

Genes and heredity [DVD]

Wynnewood, PA: Schlessinger Media, 2006.

Subjects: Genes – Juvenile films. Heredity – Juvenile films.

Summary: Students will learn that genes are the tiny instruction manuals contained in the chromosomes of every one of our cells and that genes are responsible for our characteristic traits.

612 H918

Reproductive and endocrine systems [DVD]

Wynnewood, PA: Schlessinger Media, 2006.

Subjects: Human reproduction – Juvenile films. Generative organs – Juvenile films. Body, Human – Juvenile films. Endocrine glands – Juvenile films.

Summary: Students will learn about the amazing way that the primary organs of the endocrine system communicate and produce the hormones which regulate the critical functions of other body systems. Topics including growth, the onset of puberty, and sexual maturity are also covered.

507.1 K98

Inquiring safely : a guide for middle school teachers / Kwan, Terry. Texley, Juliana.

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching (Middle school). Science rooms and equipment – Safety measures. Laboratories – Safety measures.

Summary: This book will help you develop better approaches to equip labs, dispose of chemicals and other hazardous materials, maintain documentation, and organize field trips. Some chapters cover specific disciplines, such as physical science, chemistry, Earth science, and biology. Others deal with general topics such as supervising students' online activities, accommodating students with special needs, and working with volunteers.

530.092 B672

Isaac Newton : organizing the universe / Boerst, William J.

Greensboro, NC: Morgan Reynolds Publishing, 2004.

Subjects: Newton, Isaac, Sir, 1642-1727 – Juvenile literature. Physicists – Great Britain – Biography – Juvenile literature.

Summary: This biography describes the life and times of Isaac Newton, including his scientific and mathematical endeavours and accomplishments related to the study of optics and motion.

581.3 L722

Life processes of plants [DVD]

Hamilton, NJ: Cambridge Educational, 2005.

Subjects: Plant physiology.

Summary: This program investigates the major differences and the striking similarities between plants and animals in areas such as respiration, reproduction and what they consume. It includes cell structure and plant evolution.

372.35 R652

Light : stop faking it! : finally understanding science so you can teach it / Robertson, William C.

Arlington, VA: NSTA Press, 2003.

Subjects: Light – Study and teaching. Optics – Study and teaching.

Summary: This resource helps teachers deepen their understanding of science concepts related to optics. The book explores ray, wave, and particle models of light, reflection and refraction, optical instruments, polarization of light, and interference and diffraction.

553.7 P964

Project WET : curriculum and activity guide

Bozeman, MT: Project WET International Foundation, 1995.

Subjects: Water – Study and teaching.

Summary: This resource is a collection of water-related lessons and mini-units. Peoples' relationships to water are a major theme of Project WET. Other activities include water's chemical and physical properties, quantity and quality issues, aquatic wildlife, wetlands, ecosystems, and management strategies.

621.3121 S756

The pros and cons of water power / Spilsbury, Richard. Spilsbury, Louise.

New York, NY: Rosen, 2008.

Subjects: Hydroelectric power plants. Hydroelectric power plants – Environmental aspects. Reservoirs.

Summary: The authors examine the use of water as a source of power and describe what is needed to generate electrical energy using water power. The authors include brief points as pros and cons for water power. An example includes the building of dams and how they impact the land.

333.9162 R433

Residents' perspectives on the Churchill River / Edye-Rowntree, Joel.

Winnipeg, MB: Aboriginal Issues Press, 2006.

Subjects: Traditional ecological knowledge – Manitoba – Churchill Region. Water resources development – Environmental aspects – Churchill River (Sask. and Man.). Water diversion – Churchill River (Sask. and Man.).

Summary: The lower Churchill River has undergone many environmental changes that have had an impact on the residents of Churchill. The author interviews individuals from Churchill to gain insight on the changes of the Churchill River. The interviewees also provide recommendations to improve usage of the lower Churchill River.

507.1 S128

Safety in the science classroom : kindergarten to grade 12

Edmonton, AB: Alberta Education, 2006.

Subjects: Science – Study and teaching – Safety measures. Safety education. Safety measures. Science rooms and equipment – Safety measures.

Summary: This is a comprehensive manual regarding science safety. While Part A focuses on general safety management, Part B contains specific information around safety, storage, and management of chemical, biological, and physical hazards in the classroom relevant to science teachers at all grade levels. Appendices include examples of science safety rules and procedures, sample student safety contracts, and a chemical laboratory safety inspection checklist.

551.375 J79

The sand dunes of Lake Athabasca : your adventure in learning / Jonker, Peter. Rowe, J. S.

Saskatoon, SK: University Extension Press, 2001.

Subjects: Sand dunes – Athabasca, Lake, Region (Sask. and Alta.). Natural history – Athabasca, Lake, Region (Sask. and Alta.).

Summary: This resource provides an example of ecosystem research in a Saskatchewan context. Following a description of the landscape and how it was formed, the distinctive species of the region

are discussed. Adaptations to the environment by a variety of mammals, birds, amphibians, insects, fish, and vegetation are the focus of the book. The human impact is also discussed.

428.24 S416

Science for English language learners : K-12 classroom strategies / Fathman, Ann K. Crowther, David. (Eds.).

Arlington, VA: NSTA Press, 2006.

Subjects: English language – Study and teaching as a second language. Science – Study and teaching.
Summary: This resource is designed to assist teachers to implement inquiry-based science while increasing learning opportunities for English Language Learners (ELL). The book provides strategies for planning, teaching, assessing, and extending learning. While the book is specifically designed for ELL students, many of the strategies can benefit all students in the classroom.

372.35 C187

Science notebooks : writing about inquiry / Campbell, Brian. Fulton, Lori.

Portsmouth, NH: Heinemann, 2003.

Subjects: Science – Study and teaching (Elementary). School notebooks. Learning by discovery.
Summary: This book serves as a ready resource of strategies and methods for teachers to incorporate science notebooks into their school day. Along the way, the book includes: classroom vignettes that demonstrate how science notebooks actually function in class, student samples that allow readers to see student entries at a variety of levels, and thinking points throughout that link ideas presented in the book to practice and philosophical beliefs.

372.357 T253

Teaching green : the middle years : hands-on learning in grades 6-8 / Grant, Tim. Littlejohn, Gail. (Eds.).

Gabriola, BC: New Society Publishers, 2004.

Subjects: Environmental education. Ecology – Study and teaching (Middle school). Biotic communities – Study and teaching (Middle school). Environmental protection – Study and teaching (Middle school).

Summary: Organized into green teaching categories, the book offers a host of ideas for hands-on learning about biodiversity, ecology, resource consumption, green technology and the world around us.

508 P712 OVERSIZE

Time Planet Earth : an illustrated history / Knauer, Kelly. (Ed.).

New York, NY: Time, 2008.

Subjects: Natural history – Pictorial works. Earth – Pictorial works.

Summary: This resource covers many topics in the renewed science curriculum. Using the ancient Greek division of the world using spheres, the authors examine the atmosphere (air), pedosphere (land), biosphere (living), hydrosphere (water), cryosphere (frozen), and geosphere (subterranean). The animals, plants, and landforms that exist within each sphere are described.

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Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching. Science – Mathematical models. Mathematics – Study and teaching. Models and modelmaking.

Summary: Models help students to make and test predictions, to use logic, and to construct understanding about how things work. Chapters include: Understanding Models; Similes, Analogies, and Metaphors; Concrete Models; Mathematical Models; Computer Technology and Modeling; Inquiry and Model Building; and, Models and Teaching the Nature of Science.

546.22 W324

Water analysis [DVD]

Wynnewood, PA: Schlessinger Media, 2006.

Subjects: Water – Analysis. Water – Experiments.

Summary: Viewers follow a group of high school students as they test and compare different water sources for eight factors: temperature, pH, dissolved oxygen, hardness, alkalinity, nitrates, coliform bacteria, and chlorine.

581.76 L184

Water and wetland plants of the Prairie Provinces / Lahring, Heinjo.

Regina, SK: Canadian Plains Research Center, 2003.

Subjects: Aquatic plants – Prairie Provinces. Wetland plants – Prairie Provinces. Wetland ecology – Prairie Provinces.

Summary: This field guide presents identification keys, descriptive information, and colour photographs of water and wetland plants in Saskatchewan, Alberta, Manitoba, and the northern United States. It provides a relevant, easy-to-use guide for field trips to wetland ecosystems.

551.48 C814

Watershed dynamics / Environmental Inquiry Leadership Team. Carlsen, William S.

Arlington, VA: NSTA, 2004.

Subjects: Watersheds – Study and teaching (Secondary). Watershed ecology – Study and teaching (Secondary). Water quality – Study and teaching (Secondary).

Summary: This resource provides an overview of watershed science. It includes information and activities related to the biological, chemical, and physical properties of rivers and streams, and the way they are impacted by surrounding land uses.

SCIENCE GRADE 9

612 W183

Body : an amazing tour of human anatomy / Walker, Richard.

New York, NY: Dorling Kindersley, 2005.

Subjects: Human body – Juvenile literature. Human anatomy – Juvenile literature.

Summary: Three-dimensional images, constructed by scanning cross-sections of a human cadaver, provide a detailed view of the major systems and regions of the human body. The diagrams and acetate overlays help to illustrate the complexity of the human body. The book also includes a CD with additional 360 degree animations.

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Subjects: Endocrine glands. Hormones.

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Subjects: Immune system – Juvenile literature.

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Lungs : injury, illness and health / Ballard, Carol.

Chicago, IL: Heinemann, 2003.

Subjects: Lungs. Respiratory organs.

Summary: This book provides information about the respiratory system, discussing its different parts, including the mouth and nose, pharynx and larynx, and lungs, and looking at some of the things that can go wrong with the respiratory system.

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Muscles : injury, illness and health / Ballard, Carol.

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Subjects: Muscles.

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Spinal cord and nerves : injury, illness and health / Parker, Steve.

Chicago, IL: Heinemann, 2003.

Subjects: Nervous system. Nerves. Spinal cord.

Summary: This book explains the structure of the spinal cord and nerves, the different illnesses and injuries that can affect our spinal cord and nerves, from a slipped disk to spinal meningitis, and outlines ways we can keep our spinal cord and nerves healthy.

540 R652

Chemistry basics : stop faking it! : finally understanding science so you can teach it / Robertson, William C.

Arlington, VA: NSTA Press, 2007.

Subjects: Chemistry – Study and teaching.

Summary: This guide provides background information for teachers to build their understanding of the basics of chemistry. It introduces concepts from quantum mechanics to build conceptual understanding of the atom without resorting to complicated mathematics equations.

303.483 S632

Clones, cats, and chemicals : thinking scientifically about controversial issues / Slesnick, Irwin L. Arlington, VA: NSTA, 2004.

Subjects: Medical genetics. Science – Public opinion. Cats. Games of chance (Mathematics).

Hunting. Manned space flight. Violence in mass media.

Summary: This book examines 10 dilemmas from the fields of biology, chemistry, physics, Earth science, technology, and mathematics and helps you challenge students to confront scientific and social problems that offer few black-and-white solutions. Each question is presented as a two-part unit: concise scientific background with possible resolutions and a reference list for further teacher reading, and a reproducible essay, questions, and activities to guide students in debating and decision-making.

372.35 R652

Electricity and magnetism : stop faking it! : finally understanding science so you can teach it / Robertson, William C.

Arlington, VA: NSTA Press, 2005.

Subjects: Electricity. Magnetism.

Summary: This resource contains information and activities on electricity, circuits and electronics, and magnetism. This guide addresses teachers' concerns about content and helps to fill in any gaps of understanding that may exist. Emphasis is on "getting" the science rather than memorizing facts and formulas.

546 B187

The elements : a very short introduction / Ball, Philip.

New York, NY: Oxford University Press, 2004.

Subjects: Chemical elements.

Summary: This book explores the historical and cultural impact of the elements on humankind. Rather than outlining the different types of atoms making up each element and their properties and characteristics, the author uses narrative text to bring to light our cultural interactions with the nature and composition of matter.

507.1 E93

Everyday assessment in the science classroom / Atkin, J. Myron. Coffey, Janet E.

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching – Evaluation. Science – Ability testing.

Summary: This collection of ten essays provides insight into how ongoing classroom assessment positively impacts student learning. Topics include: the importance of everyday assessment; assessment for learning; examining students' work; assessment of inquiry; using questioning to assess and foster student thinking; involving students in assessment; and reporting progress.

612 W183

Guide to the human body / Walker, Richard.

Richmond Hill, ON: Firefly Books, 2004.

Subjects: Human anatomy. Human physiology. Medicine, Popular.

Summary: This illustrated guide to the human body is a useful, quick-reference tool. The first half presents information on the anatomy of the human body and on body systems. The second half of the handbook is organized as a medical encyclopedia, providing brief definitions of common medical terms and conditions.

Human Body in Action Series

612 H918

Cells [DVD]

Wynnewood, PA: Schlessinger Media, 2006.

Subjects: Cells – Juvenile films. Body, Human – Juvenile films.

Summary: Set against the backdrop of a soccer team in action, *Cells* takes a close-up look at the smallest living unit in the human body. Students will discover that, while most cells are very similar in structure and equipment, each type of cell has its own special function.

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Genes and heredity [DVD]

Wynnewood, PA: Schlessinger Media, 2006.

Subjects: Genes – Juvenile films. Heredity – Juvenile films.

Summary: Students will learn that genes are the tiny instruction manuals contained in the chromosomes of every one of our cells and that genes are responsible for our characteristic traits.

612 H918

Reproductive and endocrine systems [DVD]

Wynnewood, PA: Schlessinger Media, 2006.

Subjects: Human reproduction – Juvenile films. Generative organs – Juvenile films. Body, Human – Juvenile films. Endocrine glands – Juvenile films.

Summary: Students will learn about the amazing way that the primary organs of the endocrine system communicate and produce the hormones which regulate the critical functions of other body systems. Topics including growth, the onset of puberty, and sexual maturity are also covered.

581.3 L722

Life processes of plants [DVD]

Hamilton, NJ: Cambridge Educational, 2005.

Subjects: Plant physiology.

Summary: This program investigates the major differences and the striking similarities between plants and animals in areas such as respiration, reproduction and what they consume. It includes cell structure and plant evolution.

523 D548

Nightwatch : a practical guide to viewing the universe (4th ed.) / Dickinson, Terence.

Richmond Hill, ON: Firefly Books, 2006.

Subjects: Astronomy – Observers' manual.

Summary: This guide to the night skies combines full-colour photographs, informative text, charts, boxes, and tables to create an excellent reference book for both students and teachers. The author clearly presents information on the differences among planets, comets, satellites, and stars; the ways to use star patterns for determining time and direction; and the criteria for choosing binoculars or a telescope.

612.6 B916

101 questions about reproduction : or how 1+1=3 or 4 or more / Brynie, Faith Hickman.

Minneapolis, MN: Twenty-first Century Books, 2006.

Subjects: Human reproduction. Sex instruction for youth.

Summary: In a question and answer format, this book describes all aspects of reproduction in a straight-forward manner. Topics covered include fertilization, pregnancy, childbirth, methods of contraception, abortion, infertility, and fertility technology.

The Periodic Table Series

546.38 S257

Sodium and the alkali metals / Saunders, Nigel.

Chicago, IL: Heinemann Library, 2004.

Subjects: Sodium. Alkali metals. Chemical elements.

Summary: Why are sodium and the alkali metals so reactive? How does an atomic clock work? What do space shuttles and batteries have in common? Find out the answers to these and other in this informative book.

546.41 S257

Uranium and rare earth metals / Saunders, Nigel.

Chicago, IL: Heinemann Library, 2004.

Subjects: Uranium alloys. Rare earth metals. Chemical elements.

Summary: What are YAG crystals used for? How are new elements created? This book investigates the uses for these elements, from tracer bullets to television sets.

507.1 S128

Safety in the science classroom : kindergarten to grade 12

Edmonton, AB: Alberta Education, 2006.

Subjects: Science – Study and teaching – Safety measures. Safety education. Safety measures. Science rooms and equipment – Safety measures.

Summary: This is a comprehensive manual regarding science safety. While Part A focuses on general safety management, Part B contains specific information around safety, storage, and management of chemical, biological, and physical hazards in the classroom relevant to science teachers at all grade levels. Appendices include examples of science safety rules and procedures, sample student safety contracts, and a chemical laboratory safety inspection checklist.

428.24 S416

Science for English language learners : K-12 classroom strategies / Fathman, Ann K. Crowther, David. (Eds.).

Arlington, VA: NSTA Press, 2006.

Subjects: English language – Study and teaching as a second language. Science – Study and teaching.

Summary: This resource is designed to assist teachers to implement inquiry-based science while increasing learning opportunities for English Language Learners (ELL). The book provides strategies

for planning, teaching, assessing, and extending learning. While the book is specifically designed for ELL students, many of the strategies can benefit all students in the classroom.

629.454 T443

Team Moon : how 400,000 people landed Apollo 11 on the moon / Thimmesh, Catherine.

Boston, MA: Houghton Mifflin, 2006.

Subjects: Space flight to the moon.

Summary: Culled from direct quotes from the people behind the scenes, NASA transcripts, national archives and NASA photos, the whole story of Apollo 11 and the first moon landing emerges.

670 S631

Transformed : how everyday things are made / Slavin, Bill. Slavin, Jim.

Toronto, ON: Kids Can Press, 2005.

Subjects: Manufactures – Juvenile literature.

Summary: Slavin shows the process of how objects are changed from raw materials to the finished products. He uses common items that students are familiar with, such as baseballs. Each two-page spread describes how the object is made by breaking the process down into steps.

507.12 G466

Understanding models in earth and space science / Gilbert, Stephen W. Ireton, Shirley Watt.

Arlington, VA: NSTA Press, 2003.

Subjects: Science – Study and teaching. Science – Mathematical models. Mathematics – Study and teaching. Models and modelmaking.

Summary: Models help students to make and test predictions, to use logic, and to construct understanding about how things work. Chapters include: Understanding Models; Similes, Analogies, and Metaphors; Concrete Models; Mathematical Models; Computer Technology and Modeling; Inquiry and Model Building; and, Models and Teaching the Nature of Science.

523.43 W442

Welcome to Mars [DVD]

Boston, MA: WGBH Video, 2005.

Subjects: Space vehicles – Landing – Mars (Planet). Mars probes.

Summary: The Mars Rover Exploration team is followed in its day-to-day operations tracking the rovers Spirit and Opportunity. Viewers experience the elation of the successful landings of Spirit and Opportunity on Mars, the frustration with computer problems with Spirit, and the search for evidence of water on Mars. Data and images sent to Earth help scientists learn more about the surface of Mars and the history of this planet.