SCIENCE

GRADE LEVEL	TITLE	AUTHOR	BOOK #

HIGH SCHOOL

7-12 **Art in Chemistry: Chemistry in Art** — **Barbara A. Greenberg, Dianne Petterson** — **S-4**

Make chemistry interesting and art practical by integrating the two subjects with scores of hands-on activities and fascinating demonstrations. Through explorations of color, paint, clay, jewelry, photography and art forgery, students learn fundamental principals of chemistry.

5-12 **Project Earth Science: Astronomy** — **P. Sean Smith** — **S-5**

Project Earth Science: Astronomy spotlights ways to teach students about everything from why Earth has seasons to what a light year is. For the student, hands-on, teacher-tested activities bring the concepts of astronomy down to Earth. For the teacher, background information, supplementary readings, and suggestions for integrating other disciplines provide a framework to launch a successful introduction to astronomy.

4-12 **Building Big** — **David MaCaulay** — **S-116**

Engages readers' imaginations and gets them thinking about structures they see every day – bridges, tunnels, skyscrapers, domes and dams. Includes 5 hrs. of video on 5 cassettes.

6-10 **Chemical Reaction** — **LHS GEMS** — **S-10**

An ordinary sandwich bag becomes a safe laboratory as students mix chemicals that bubble, change color, and produce gas, heat and odor. Students then experiment to determine what causes the heat in this chemical reaction.

8-10 **Chemistry That Applies** — **Michigan Department of Education** — **S-11**

This unit helps students construct a clear understanding of how new substances form from the old ones and how the Law of the Conservation of Matter applies to all of these situations. It also helps students learn to pose questions, search for solutions to problems, work together with others, and value the need for evidence in making decisions.

7-10 **Cosmic Classroom: Maps Models & Measurements** — **Space Center- Houston** — **S-18**

.By using the artifacts from the manned space program, and enlarging certain concepts of astronomy and earth science, teachers are able to build on their student's natural interest in stars, planets, extraterrestrials, astronauts, and a universe so vast that it can barely be imagined.

9-12 **Cosmic Classroom: A Space Presence** — **Space Center – Houston** — **S-17**

This guide provides a study of human's presence in space would offer real-life examples of Newton's laws, changes of matter, environmental hazards, and thermodynamics.

9-12 **Cosmic Classroom: A Space Presence** — **Space Center – Houston** — **S-16**

By using the artifacts from the Human Spaceflight Program, and enlarging certain concepts of astronomy and earth science, teachers are able to build on their students' natural interests in stars, planets, extraterrestrials, astronauts, and a universe so vast that it can barely be imagined.

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GRADE LEVEL	TITLE	AUTHOR	BOOK #

HIGH SCHOOL

6-12 **Doc Fizzix's MOUSETRAP Powered Cars and Boats** **Alden J. Balmer** **S-189**

This book will help you learn the basic conceptual concepts that are needed to construct your own mouse trap car and how these concepts relate to mouse trap car engineering through lessons on force, inertia, simple machines, and energy transfer.

5-9 **Down to Earth** **AIMS** **S-8**

Down to Earth contains studies in three areas: geology, meteorology, and oceanography. Students explore variables in meteorology by looking at relative humidity using a wet and dry bulb thermometer and take a closer look at heat absorption, the effect of the sun's angle on energy received, and evaporation rates. Other activities include finding the composition of a hill built by students, examining the idea of mapping the ocean floor, and calculating the amount of pollution a car produces in one minute.

6-12 **Earth Systems:** **Ohio Sea Grant** **E-7**
Educating Activities for Great Lakes Schools

- **Life in the Great Lakes**
- **Great Lakes Environmental Issues**
- **Great Lakes Climate & Water Movement**
- **Land & Water Interactions in the Great Lakes**

This guide demonstrates the range of instructional opportunities available for the classroom. The principles that guided development of the activities should also direct their classroom use: of historical and descriptive as well as experimental data; integration of science disciplines in a social context; and potential for collaborative learning and group decision making

6-12 **EarthWatch: Pollution, Predation, Migration** **Earthwatch Institute** **S-12**

Environmental case studies to supplement the teaching of ecology and human impact.

4-9 **Electrical Connections** **AIMS** **S-84**

Electrical Connections is designed to clear up some of the mystery and alleviate some of the fear regarding electricity by learning a few basic electrical concepts. Major topics covered include: static electricity, attraction and repulsion of charges, electrical conductors, series and parallel circuits, electrical switches, and connections between magnetism and electricity.

7-12 **Electricity – 19** **TOPS Learning Systems** **S-202**

This book begins with task cards that investigate the nature of like and unlike charges, establishing the reason why current flows through wire. Students then improvise bulb and battery holders, and build a variety of different switches.

K-12 **Exploring Matter with TOYS** **Mickey Sarquis** **S-22**

In this book you will find teacher-tested, motivating activities that draws students in with toys, gadgetry, fun-to-do experiments, and observations of scientific phenomena in everyday events. Each activity contains a list of the key science topics covered and process skills used, estimated time length, materials list, safety and disposal procedures, step-by-step instructions, extension suggestions, and reproducible handouts.

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HIGH SCHOOL

5-12 **Exploring Meteorite Mysteries** — **NASA** — **S-23**

Teachers and scientists designed this book to engage students in inquiry science with interdisciplinary connections. The study of meteorites provides a unifying theme that links almost every aspect of Earth and planetary science and mathematics, physics, chemistry and even biology. The effects of meteorite impacts have serious implications for social science. Many of the lessons begin with a simple activity and build to more complex ones.

5-9 **Floaters & Sinkers** — **AIMS** — **S-85**

Floaters & Sinkers is an excellent source of hand-on activities for the middle school student that builds the concept of density as the ratio of mass to volume. Through a carefully planned series of experiences, student's measure volume, explore the idea of space between particles whether seen or not, discover the relationship between surface area and cargo capacity of boats, and explore the densities and volumes of different types of spherical objects and irregular shaped objects.

8-10 **Food, Energy & Growth** — **Michigan Department of Education** — **S-24**

This unit is designed to help students construct a clear understanding of the ways that food is used by our bodies for energy and for the materials needed for growth and repair. It has also been designed to help students learn to pose questions, search for solutions to problems, work together with others, and value the need for evidence in making decisions.

5-9 **From Head to Toe** — **AIMS** — **S-86**

From Head to Toe includes studies of the human body, its framework, respiratory system, and circulatory system. The activities focus on measurement and provide an excellent vehicle to build self-awareness and establish a basis for a good physical fitness program.

5-9 **Fun With Foods** — **AIMS** — **S-87**

Fun With Foods contains a series of hands-on investigations utilizing and analyzing common foods. The wonderment and curiosity that is aroused in working with and examining foods is the beginning of many delightful discoveries, some of which include the percent of an orange that is edible, how effective preservatives are in retarding the growth of mold, the presence of sugar in most foods, and mayonnaise as an emulsion.

5-12 **Geology: Project Earth Science** — **Brent A. Ford** — **S-25**

Use Project Earth Science: Geology to introduce your students to plate tectonics and teach them what causes volcanoes and earthquakes. Lead explorations of these and other larger-than-the-classroom geological phenomena with the teacher-tested, *Standards*-based activities. Earth's physical evolution and dynamic processes are carefully explained in language accessible to students and teachers. Supplemental readings provide educators with the background information to answer student questions and concerns.

6-12 **Going Places, Making Choices Transportation and the Environment** — **National 4-H Council** — **S-140**

This unit is designed to help youth understand and respond to real life issues affecting their communities and lives concerning transportation and mobility issues.

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HIGH SCHOOL

5-12 **Gravity Rules!** **AIMS** **S-88**

Gravity Rules! is an activity book and video package using the high-energy sport of skydiving to teach students basic force and motion concepts. The one-hour video features actual in-the-air scenes of skydivers performing basic and advanced flight maneuvers. In the classroom students make simple paper models and explore how the forces acting on the models allow them to duplicate the motions of real skydivers. Students also collect, record, and analyze data taken directly from instruments seen in the video. To complete the *Gravity Rules!* activities, both the book and video are needed.

K-12 **Great Lakes Watershed Education Resource Kit** **S-170**

This kit contains teacher resources, children literature and posters to enhance teaching units on Great Lakes watersheds and environmental stewardship.

1-12 **Hands On – Save Our Streams** **Izaak Walton League of America** **E-10**

This guide will help you learn how to monitor and find out if a stream is healthy. It begins with an explanation of watersheds and how water flows through the soil, waterways and atmosphere. Instructions for monitoring streams and steps to plan a science project are included.

6-10 **Hands on Science – Electricity & Magnetism** **Joel Beller, Kim Magliore** **S-196**

The best way to learn science is to do science. This guide offers 16 ready-to-use activities that help your students build a solid understanding of the physical world around them. Your students can experience the nature of static electricity, explore the properties of magnets, construct series and parallel circuits, investigate batteries and more.

6-10 **Hands on Science - Light & Color** **Michael Margolin** **S-194**

This supplement to teaching offers hands-on, fun activities that will turn students on to science. It will open the door of discovery to your students as they explore how light and color affect the world around them.

5-10 **How to…Teach with Topographic Maps** **Dana Van Burgh, Elizabeth N. Lyons, Marcy Boyington** **S-34**

This "How To" guide is divided into two sections. The first section provides an overview and background information on topo maps for the instructor. The second section is a series of classroom activities to help teach topo map skills to your students. The guide includes a topo map produced by the United States Geological Survey.

7-12 **How to…Write to Learn Science** **Bob Tierney** **S-35**

Use writing and drawing exercises to help your students experience the exhilaration of science. The activities focus on building trust in the classroom and tapping into students' creativity, allowing them to express science in their own words and art, instead of memorizing it from a textbook.

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HIGH SCHOOL

K-12 **In Touch With Girls and Science** — **American Association for the Advancement of Science** — **S-36**

This manual provides activities that are designed for use with girls in school, community, and home settings, such as school science and mathematics programs, scouting and church-based programs, and college science and engineering student societies. They can be used with the guidance of adult leaders, teachers, parents, or young-adult mentors. Special emphasis is placed on having girls come in contact with female role models and mentors. The activities in this manual were selected because they foster problem-solving skills through the use of data collection and analysis.

2-12 **Keeping a Nature Journal** — **Clare Walker Leslie, Charles Roth** — **S-120**

Learn to observe and connect with the world around you through drawings and descriptive writing.

K-12 **Let's Reduce and Recycle: Curriculum for Solid Waste Awareness** — **EPA** — **S-119**

Designed to increase solid waste awareness and promote recycling participation by children.

6-12 **The Life of the Lakes A Guide to the Great Lakes Fishery** — **Mich. Sea Grant Extension, Mich. State University** — **S-139**

The purpose of this guide is to describe the current status of the Great Lake fishery; to detail the Great Lake fishery of the past including the social, technological and environmental changes it has faced over time; and to discuss fisheries issues expected in the future.

6-11 **Light – 17** — **TOPS Learning Systems** — **S-205**

Light requires few specialty items other than pocket mirrors, blue and yellow cellophane, penny-sized convex lenses and hand lenses with straight rigid handles. You'll need at least 2 of these hand lenses per lab group. Gather these and other simple materials, photocopy the 36 task cards, and you're ready to explore TOPS Learning Systems hands-on.

6-12 **Looking at Earth from Space** — **NASA** — **S-166**

This guide was designed for teachers to focus on the study of meteorology, with application to satellite imagery.

5-9 **Machine Shop** — **AIMS** — **S-92**

Machine Shop allows students to join the characters "Fantastic Force" and "Mucky Mass" in their adventures as they discover the utility of simple machines. Hands-on activities help students develop an understanding of the physics involved. Students are challenged to apply their understanding to weigh each other using a seesaw, to have tug-of-wars with pulleys, to determine how bicycle gears work, and to construct catapults and racing machines. The pervasive concepts of conservation of energy, forces, and power are developed through each of these intriguing activities.

8-12 **Magnetism – 20** — **TOPS Learning Systems** — **S-206**

These experiments reveal much about the nature of magnetic domains. Add coiled wire and dry cells to your inexpensive "refrigerator" magnets to create a surprising array of wonderful inventions: electromagnets, solenoids, telegraphs, buzzers, motors, generators and relay switches. Magnetism 20 is great science, and great fun

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HIGH SCHOOL

K-12 **Mammal Tracks Life Size Tracking Guide** — **Heartwood Press** — **S-213**

This life size tracking key will help you determine which species made the footprints you are observing. It is in a three-part key…movement pattern, group, or species. This is a great tool when checking out the Wolf Box for Making Tracks Kit from our equipment list.

5-12 **Meteorology: Project Earth Science** — **P. Sean Smith, Brent A. Ford** — **S-42**

Integrated activities cover the origin and composition of the atmosphere, as well as the variables that influence weather and affect the movement of air masses. From studying the hydrologic cycle to reading weather maps and tracking hurricanes, your students will become skilled weather watchers.

6-10 **Methods of Motion: An Introduction to Mechanics** — **NSTA, Jack E. Gartrell, Jr.** — **S-43**

Often the ideas of motion seem disconnected from your students' everyday experiences. This manual is designed to help you introduce the daunting subject of Newtonian mechanics to students in the middle grades. The 27 teacher-created activities use readily available materials to combat students' misconceptions.

K-12 **Michigan WISE Project** — **DNR** — **E-14**

The Great Lake WISE (Waste Information Series for Education) Project is a K-12 science-based curriculum created by the Michigan Departments of Natural Resources and Education to allow teachers to integrate solid waste and related environmental issues into existing curricula. By encouraging students to think critically about our trash dilemma and propose solutions, students learn the importance of individual action and develop lifelong habits of caring for the environment.

5-12 **Microgravity** — **NASA** — **S-44**

This curriculum guide defines and explains and shows how microgravity can help us learn about the phenomena of our world. The front section of the guide is designed to provide teachers of science, mathematics, and technology at many levels with a foundation in microgravity science and applications.

9-12 **Move with Science: Energy, Force & Motion** — **Roy Q. Beven** — **S-47**

Move with Science uses real-world situations to represent concepts such as inertia, stability, and the relationships between mass, energy, and motion. It brings the concepts into the classroom through analogous hands-on activities and background reading sections. This book also focuses on the physics and biology of transportation safety and provides and understanding of physics that will show students the consequences of design and behavior.

K-12 **Monarch Butterfly** — **Royal Mail** — **S-46**

This manual contains ideas that you can further develop with your creativity and experience. It is our hope that by carrying out the activities in this manual, the Monarch Butterfly can be protected during its journey through the cities that participate in the project. The activities were designed to be used during the migration in the months of September, October and November.

5-12 **Oceanography: Project Earth Science** — **P. Sean Smith, Brent A. Ford** — **S-53**

Embark on a voyage of discovery as you steer your students through activities designed to teach them about currents, waves, and tides. From an understanding of the properties that make water unique, your students will get a global view of the marine environment, including the impact of human activities on the oceans.

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9-12 **Oceans and Earth and Beyond** — **JASON Project** — **S-132**

Curriculum is closely related to the National Science Education Content Standards, covers several subjects in detail. Includes conservation, field investigations in ocean structure, coral reefs, kelp forests and unexpected life.

5-9 **Our Wonderful World** — **AIMS** — **E-29**

Our Wonderful World is an environmental studies book which explores how we relate to our surroundings. Most of the activities are appropriately implemented out-of-doors and include these topic areas: air, water, transpiration, soil, plants, animals, and insects. Students build a water still to extract water from the air through condensation in one activity and study the reaction of insects to temperature changes in another.

6-10 **Our Solar System – Hands on Science Series** — **Karen Kwitten Steven Souza** — **S-50**

Your students will have fun exploring the scale of the solar system, Kepler's laws, planets, orbits, phases of the moon, comets, and meteors. Activities have Internet connections, suggested quiz topics and an evaluation plan.

6-12 **Out of the Rock** — **National Energy Foundation** — **S-51**

The information and wide array activities that focus on several specific educational aims; developing an understanding of what mineral resources are; develop awareness of the diverse and important uses of mineral resources; develop an appreciation for the individuals who work in the mineral resources industry; develop and understanding of the economic and environmental impact of mineral resource development; develop more advanced learning skills including problem solving, decision making and critical and creating thinking.

7-12 **Pendulums – 01** — **TOPS Learning Systems** — **S-204**

A washer swings on a thread, sweeping the face of a cereal box. This box is covered with a grid that measures length and amplitude. It is, in short, a classically simple TOPS learning system.

5-12 **Planetary Geology** — **NASA** — **S-163**

This guide provides activities on geologic processes, impact craters, planetary atmosphere, planetary surfaces, and geologic mapping.

6-12 **Pond and Stream Safari: A Guide to the Ecology of Aquatic Invertebrates** — **S-121**

Excellent resource and activities for pond and stream studies)

6-12 **Project Learning Tree: Focus on Forest** — **American Forest Foundation** — **S-148**

This module gives students a chance to examine a variety of complex environmental issues. The activities seek to teach students how to think about the environment, not what to think of about it.

6-12 **Project Learning Tree: Focus on Risk** — **American Forest Foundation** — **S-149**

The activities will help students develop skills they need to participate meaningfully in public dialogue and decision making processes that address environmental and human health issues and personal risk.

6-12 **Project Learning Tree: Forest Ecology** — **American Forest Foundation** — **S-150**

The activities in this module are designed to encourage students to explore and learn about forest ecosystems through hands-on discovery and experimentation.

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6-12 **Project Learning Tree Secondary Environmental Education Program** — **American Forest Foundation** — **E-16**

Through hands-on, interdisciplinary activities, PLT provides students with opportunities to investigate environmental issues and encourages them to make informed, responsible decisions.

6-12 **Project Learning Tree: Secondary Modules** — **American Forest Foundation** — **S-151**

PLT's secondary environmental education modules were developed in response to a growing need and concern in America today for quality environmental education materials for the secondary level.

K-12 **Project Wet** — **Council for Environmental Education** — **E-17**

The goal of *Project WET* is to facilitate and promote awareness, appreciation, knowledge, and stewardship of water resources through the development and dissemination of classroom-ready teaching units.

K-12 **Project WILD** — **Western Regional Environmental Education Council** — **S-122**

Interdisciplinary activities on wildlife appreciation, diversity, ecology, and conservation.

K-12 **Project WILD-Aquatic** — **Western Regional Environmental Education Council** — **S-123**

Interdisciplinary curriculum/activity guide that teaches about wildlife and water.

9-12 **Rivers Curriculum Guide: Biology** — **Rivers Curriculum Project** — **S-124**

This curriculum focuses on stream-monitoring programs and the study of benthic macroinvertabrates. Living organisms in a river, stream, or lake are easily captured or documented.

9-12 **Rivers Curriculum Guide: Chemistry** — **Rivers Curriculum Project** — **S-125**

This curriculum defines water quality and guides students in basic data collection. Water-quality kits, which are readily available and easy to use, make conducting tests a relatively uncomplicated task.

9-12 **Rivers Curriculum Guide: Earth Science** — **Rivers Curriculum Project** — **S-126**

This curriculum evaluates the physical features of a river system that provided clues to understanding the historical development within the local area. Students better understand the impact of the river drainage system on water quality when their study also factors in soil, slope and flow.

9-12 **Rivers Curriculum Guide: Geography** — **Rivers Curriculum Project** — **S-127**

This curriculum enables students to develop a sense of the environment, impact of people occupying and organizing themselves along rivers. Study of the geography of the river relates to location, place, movement, region and human-environment interactions along its banks.

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9-12 **Rivers Curriculum Guide: Mathematics** — **Rivers Curriculum Project** — **S-136**

This curriculum provides real-life application of mathematical processes and skills, using data gathered during field studies and from reference sources. Topics range from measurement and working with percentages to standard deviations.

6-9 **River Cutters** — **University of California at Berkeley** — **S-179**

Three ways that River Cutters can fit into your curriculum: Earth Science, will help your students understand the forces that shape the earth; Environmental Studies will provide your students with hands-on activities that illustrate how certain human activities impact natural systems; and Integrated Science can help students apply concepts in physical, Earth, and environmental sciences to real world problems.

4-12 **Rockets** — **NASA** — **S-57**

This guide begins with background information on history of rocketry, scientific principles, and practical rocketry. The sections on scientific principles and practical rocketry focus on Sir Isaac Newton's Three Laws of Motion. These laws explain why rockets work and how to make them more efficient. Following the background sections are a series of activities that demonstrate the basic science of rocketry while offering challenging tasks in design.

6-10 **Rocks & Minerals – Hands on Science Series** — **Barry Fried, Michael McDonnell** — **S-56**

Give students the excitement of geological exploration with 18 demonstrations covering the essentials of minerals, mineral identification, rock formation, weathering, erosion and deposition, and fossils and geologic history. Includes complete teacher support: detailed background, materials lists, safety tips, scoring rubrics, reproducibles.

K-12 **Science Demonstration Projects in Drinking Water** — **EPA** — **S-60**

This pamphlet includes a brief selection of science demonstration projects related to drinking water for K-12 students. The general areas covered by the demonstration projects include the chemical/physical aspects of water, contamination and treatment of drinking water, distribution and supply of drinking water, and water conservation.

4-9 **Science Equals Success** — **U.S. Department of Education** — **S-61**

This book is a hands-on, discovery science activity that center around four EQUALS processes - problem solving, cooperative learning, spatial skills and career awareness. Activities are designed to increase students' interest and motivation in math, improve confidence and competence in doing math.

K-12 **Science Experiments by the Hundreds** — **Julie H. Cothron, Ronald N. Giese, Richard J. Rezba** — **S-62**

This two-book set teaches students experimental design, ways to explore project ideas, how to write safe procedures, methods of analyzing data, and how to write an experimental report. There is a student book and a teacher's guide.

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HIGH SCHOOL

5-9 **The Sky's the Limit** **AIMS** **S-110**

The Sky's the Limit invites students to explore every aspect of the science of aerodynamics through simple and inexpensive materials. "Flying" is magic for children of all ages! This book attempts to clarify some of the reasons why the magic works while preserving its sense of mystery. Students enjoy constructing kites, paper airplanes, balloon rockets, super tubes, and much more.

4-9 **Soap Films & Bubbles** **AIMS** **S-111**

Soap Films & Bubbles provides extensive explorations into the behavior of soap films. Valuable insights will be acquired through activities that are sure to intrigue students.

7-12 **Solutions – 12** **TOPS Learning Systems** **S-203**

This unit begins with corn starch. Mixed cold, it forms a coarse suspension that clears by filtering or settling. When boiled it forms both a cloudy colloidal suspension and clear true solution. Concepts and vocabulary learned here are then applied to a series of tasks that clean muddy water.

7-12 **Sound – 18** **TOPS Learning Systems** **S-201**

Sound requires tuning forks, but no other special equipment. Just photocopy the 20 task cards, gather simple materials (like bobby pins, cans, soda bottles and adding-machine tape), and you're ready to explore TOPS Learning Systems hands-on.

5-12 **Spills and Ripples** **AIMS** **S-112**

Spills and Ripples is an innovative, exciting, and wet set of investigations designed to arouse curiosity about fluid dynamics. Students improve their understanding of density, pressure, and surface tension by learning to control boundaries between fluids, to manipulate Cartesian divers and to construct low-cost instruments, like a hydrometer and manometer.

K-12 **The Stars** **H.A. Rey** **S-129**

This guide provides information about constellations and their position in the celestial sphere throughout the year.

5-12 **Suited for Spacewalking** **NASA** **S-164**

This unit discusses the space environment, the history of spacewalking and NASA's current spacesuit. It also challenges students to design and build a spacesuit prototype and to understand important topics in spacesuit design.

K-12 **Targeting Students' Science Misconceptions** **Joseph Stepans, Ph. D.** **S-197**

This book provides activities to correct student misconception of physical science concepts.

K-9 **Teaching Chemistry with TOYS** **Jerry Sarquis, Micky Sarquis, John Williams** **S-71**

Innovative activities use everyday toys to demonstrate the principles of chemistry in ways children easily understand. Each activity contains a list of the key science topics covered and process skills used, estimated time length, materials list, safety and disposal procedures, step-by-step instructions, extension suggestions, and reproducible handouts.

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HIGH SCHOOL

K-9 **Teaching Physics with TOYS** — **Beverley Taylor, James Poth, Dwight Portman** — **S-72**

In this book you will find teacher-tested, motivating activities that draw students in with toys, gadgetry, fun-to-do experiments, and observations of scientific phenomena in everyday events. Each activity contains a list of the key science topics covered and process skills used, estimated time length, materials list, safety and disposal procedures, step-by-step instructions, extension suggestions, and reproducible handouts.

5-12 **Teaching Soil and Water Conservation** — **The USDA Soil Conservation Service** — **S-135**

Provides hands-on soil science and soil water activities covering topics such as: organic matter, soil water holding capacity, erosion, fertilizers, bird and insects forest soils.

6-12 **Telescope Power** — **Gregory L. Matloff** — **S-97**

This activities book will take you through selecting, understanding and observing with your telescope to tracking the planets, following the stars and observing the sun. A complete guide to help you understand the telescope.

K-12 **A Thousand Friends of Frogs** — **The Center for Global Environmental Education** — **S-130**

This activity guide encourages an understanding of frogs, their habitat, and their roles as bio-indicators.

6-12 **Touching the Future** — **S-154**

This Challenger Center Teacher Workshop demonstrates how space can be used to teach skills in many disciplines. It emphasizes experiential activities that promote team learning and problem solving.

K-12 **The Universe at Your Fingertips Astronomy Activities & Resources** — **Project Astro** — **S-76**

The Universe at Your Fingertips is a key product of Project ASTRO, containing exemplary classroom activities selected by a team of teachers and astronomers, comprehensive resource lists and bibliographies, brief background material on astronomical topical, and teaching ideas from experienced astronomy educators.

K-12 **More Universe at Your Fingertips Astronomy Activities & Resources** — **Project Astro** — **S-77**

More Universe at Your Fingertips is the second compilation of astronomy activities and teaching resources from Project ASTRO at the Astronomical Society of the Pacific. This book is designed to stand on it's own apart from *The Universe at Your Fingertips*. and does not require access to the other book for effective use.

6-12 **Watermarks: Poems from the Coast of Keweenaw** — **Barbara Simila** — **S-137**

A poem collection celebrating Lake Superior and the Keweenaw - great history lessons.

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HIGH SCHOOL

6-12 **Watershed Science for Educators** — **Karen Edelstein, Nancy Trautmann, Marianne Krasny** — **S-32**

This packet is written for high school and middle school teachers and students who wish to incorporate watershed monitoring into both science and humanities classes or into after-school environmental or science clubs.

6-12 **Windows on the Wild - Biodiversity Basics** — **World Wildlife Foundation** — **E-25**

The goal of WOW is to educate people of all ages about biodiversity and to stimulate critical thinking, discussion, and informed decision making on behalf of the environment. The program also promotes creative partnerships and interdisciplinary education at all levels.

K-12 **WOW!: The Wonders of Wetlands** — **Environmental Concern Inc. The Watercourse** — **E-26**

WOW!: The Wonders of Wetlands is for educators. Classroom teachers that will find useful background material and stimulation activities to fit their programs. The first part of *WOW!* is filled with background material for teachers preparing wetland study units and wetland activities.

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