

TITLE	PA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
In the Garden ISBN 0022858334 6 PK ISBN 0022865365	3.2.4.A.b., 3.2.4.B.b., 3.3.4.4.A.a.	B	30	<i>In the Garden</i> contrasts living and nonliving things and identifies some of the characteristics of living things, such as growth and change.	living thing plant rock
A World of Animals * ISBN 0022846093 6 PK ISBN 0022864016	3.3.4.A.b., 3.3.4.B.b., 3.3.4.C.a.	E	600	<i>A World of Animals</i> describes adaptations of dolphins, polar bears, elephants, beavers, woodpeckers, and camels.	fin hoof hooves trunk
Amazing Animals ISBN 0022846115 6 PK ISBN 0022864024	3.3.4.A.a., 3.3.4.A.b. 3.3.4.A.c., 3.3.4.B.b., 3.3.4.C.a., 3.5.4.D.b., 3.5.4.D.c.	G	300	<i>Amazing Animals</i> describes adaptations of animals and relates adaptations to specific environments.	gill spines webbed feet
Animal Homes ISBN 0022858466 6 PK ISBN 0022865403	3.3.4.A.b., 3.3.4.C.a., 3.5.4.D.c.	G	190	<i>Animal Homes</i> identifies the environments, such as deserts, oceans, and forests, in which various animals make their homes.	cactus desert forest
Boats Float ISBN 0022846220 6 PK ISBN 0022864121	3.2.4.C.a., 3.2.4.C.c., 3.4.4.A.a., 3.4.4.A.c.	B	BR	<i>Boats Float</i> describes solids, liquids, and gases, and defines the term <i>float</i> . It also identifies that solids have a definite shape, but liquids do not.	float gas liquid
Bryce Canyon ISBN 0022858474 6 PK ISBN 0022865438	3.1.4.E.a., 3.5.4.A.a.	H	240	<i>Bryce Canyon</i> explains how wind and water have shaped Bryce Canyon over time, and that similar processes shape other rocks.	rock water wind

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Dolphin Sounds ISBN 0022858385 6 PK ISBN 0022865551	3.2.4.B.b., 3.3.4.B.b., 3.4.4.C.a.	B	120	<i>Dolphin Sounds</i> illustrates how echolocation works, and describes how dolphins use echolocation to find food.	dolphin echo sound
Forces At Play ISBN 0022861653 6 PK ISBN 0022865543	3.4.4.C.b., 3.4.4.C.c.	H	240	<i>Forces at Play</i> defines force as a push or pull, defines the term <i>work</i> , and identifies how forces are involved in baseball, basketball, and tug-of-war.	force gravity work
Fun With Magnets ISBN 0022858377 6 PK ISBN 0022865527	3.2.4.C.a., 3.2.4.C.c., 3.4.4.A.a., 3.4.4.A.c., 3.4.4.C.b.	B	270	<i>Fun With Magnets</i> explains how magnets attract metal objects and can attract or repel one another. It also describes some uses of magnets.	magnet metal push
Good to Eat * ISBN 0022858393 6 PK ISBN 0022865373	3.1.4.B.c., 3.3.4.4.B.b.	E	230	<i>Good to Eat</i> identifies plant parts (stems, leaves, flowers, roots, fruits, and leaves) that humans use for food. The book uses lettuce, celery, broccoli, carrots, cantaloupe, and strawberries as examples.	fruit root stem
How Does Matter Change? ISBN 0022846271 6 PK ISBN 0022864172	3.1.4.E.a., 3.1.4.E.d., 3.4.4.A.a., 3.4.4.A.c.	G	240	<i>How Does Matter Change?</i> describes physical changes of matter, such as changes of shape and changes of state. It also defines the term <i>matter</i> and describes solids, liquids, and gases.	gas liquid matter
Ice Hotels ISBN 0022858512 6 PK ISBN 0022865519	3.1.4.E.a., 3.1.4.E.d., 3.4.4.A.a., 3.4.4.A.c., 3.5.4.D.c.	G	270	<i>Ice Hotels</i> uses pictures and descriptions of an ice hotel to highlight the differences between solids and liquids. It also points out the role of temperature change in melting.	liquid melts solid
Land All Around ISBN 0022858342 6 PK ISBN 0022865411	3.2.4.B.b., 3.5.4.A.b.	B	BR	<i>Land All Around</i> describes the characteristics of mountains, valleys, and plains.	mountain plain valley

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TITLE	PA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Let's Bake a Cake! ISBN 0022846255 6 PK ISBN 0022864156	3.1.4.E.d., 3.4.4.A.b., 3.4.4.A.c.	B	270	<i>Let's Bake a Cake</i> uses a discussion of baking to introduce the terms <i>melt</i> , <i>solid</i> , <i>liquid</i> , and <i>mixture</i> .	liquid melt mixture
Look for Rocks * ISBN 0022858407 6 PK ISBN 002286542X	3.2.4.B.b., 3.5.4.B.b.	E	90	<i>Look for Rocks</i> explains that rocks can be found in many places, such as yards, parks, and beaches, and uses photos to illustrate the characteristics of sandstone, slate, and granite.	granite sandstone slate
Make It New * ISBN 0022858415 6 PK ISBN 0022865454	3.1.4.E.a., 3.6.4.C.e., 3.8.4.A.d.	F	BR	<i>Make It New</i> shows that paper, glass, and cans can be recycled to make new products.	bottle can recycle
Mars ISBN 0022858490 6 PK ISBN 0022865497	3.1.4.B.c., 3.4.4.D.a., 3.4.4.D.c.	H	230	<i>Mars</i> compares and contrasts characteristics, such as size, position, temperature, and presence of water, of Earth and Mars.	planet Mars Sun
Parts of Plants ISBN 0022858458 6 PK ISBN 0022865381	3.1.4.A.b., 3.1.4.B.b., 3.1.4.B.c., 3.3.4.A.a., 3.3.4.A.c., 3.3.4.B.b., 3.5.4.A.c.	H	250	<i>Parts of Plants</i> describes leaves, flowers, stems, roots, fruits, and seeds and identifies the function of each.	root seed soil
Pond Life ISBN 0022861645 6 PK ISBN 0022864032	3.3.4.A.a., 3.5.4.D.b., 3.5.4.D.e.	D	390	<i>Pond Life</i> identifies some of the living things found in ponds, including plants, fish, frogs, and insects and points out that a pond is a freshwater environment.	insect living thing pond

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TITLE	PA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Ready, Set, Go! * ISBN 0022858423 6 PK ISBN 0022865489	3.8.4.A.d.	E	330	Ready, Set, Go explores how astronauts prepare for a flight on the space shuttle. It describes a sequence of steps using the words <i>first, next, then, and finally</i> .	astronaut space shuttle spacesuit
Solids, Liquids, and Gases * ISBN 0022846239 6 PK ISBN 002286413X	3.4.4.A.a., 3.4.4.A.c., 3.5.4.D.c.	E	370	Solids, Liquids, and Gases discusses the properties of solids, liquids, and gases and gives everyday examples of each.	gas liquid solid
Sun Power ISBN 0022858520 6 PK ISBN 0022865578	3.4.4.B.a., 3.8.4.A.b., 3.8.4.A.d.	G	350	Sun Power describes energy and explains that some energy comes from the Sun. It also discusses ways that solar energy can be used, such as heating homes and powering vehicles.	energy solar energy Sun
The Four Seasons ISBN 0022846182 6 PK ISBN 0022864091	3.1.4.C.a., 3.1.4.E.a., 3.5.4.C.c.	B	330	The Four Seasons describes spring, summer, fall, and winter by picturing the weather, activities, and clothing associated with each.	fall spring summer
The Story of Water ISBN 0022846247 6 PK ISBN 0022864148	3.1.4.E.d., 3.3.4.A.c., 3.5.4.D.c., 3.5.4.D.d., 3.5.4.D.e.	G	370	The Story of Water identifies the importance of water, discusses the water cycle, and explains the role of the Sun's energy in the water cycle.	clouds gas water cycle
The Tallest Tree * ISBN 0022846069 6 PK ISBN 0022863974	3.1.4.B.c., 3.1.4.D.a., 3.1.4.D.b., 3.1.4.D.c., 3.2.4.B.b., 3.3.4.A.a.	E	470	The Tallest Tree explains that some seeds germinate and develop into trees, such as the General Sherman Sequoia. Illustrations allow students to compare the height of the General Sherman to other objects.	cone seedling sequoia

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TITLE	PA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Things Change * ISBN 0022846263 6 PK ISBN 0022864164	3.1.4.E.a., 3.1.4.E.b., 3.1.4.E.d., 3.2.4.A.b., 3.2.4.B.b., 3.2.4.C.c., 3.3.4.A.a., 3.4.4.A.b., 3.4.4.A.c.	E	300	<i>Things Change</i> identifies changes such as boiling, freezing, melting, mixing, and growing and illustrates everyday examples of these changes.	boil freeze melt
Two Trees ISBN 0022846077 6 PK ISBN 0022863982	3.1.4.B.c., 3.1.4.D.a., 3.1.4.D.c., 3.3.4.A.a., 3.3.4.A.b., 3.3.4.A.c., 3.3.4.B.b., 3.3.4.C.a.	H	430	<i>Two Trees</i> compares and contrasts trees found at the coast with trees found in the desert. Adaptations to each environment are pictured and identified.	desert roots soil
Watch It Grow ISBN 0022846050 6 PK ISBN 0022863966	3.1.4.A.a., 3.1.4.B.b., 3.1.4.E.a., 3.3.4.A.a., 3.3.4.A.c., 3.3.4.B.b.	B	70	<i>Watch It Grow</i> identifies what seeds and plants need to grow and develop. The germination and growth of a tomato seed illustrates this process.	plant Sun water
Water Fun ISBN 0022858350 6 PK ISBN 0022865446	3.2.4.B.b., 3.5.4.D.e.	B	BR	<i>Water Fun</i> identifies recreational uses of water, points out that humans need water to drink, and explains that water should not be wasted.	ocean waste water
What Goes Around? ISBN 0022858369 6 PK ISBN 0022865470	3.1.4.A.a., 3.1.4.B.b., 3.1.4.B.c., 3.4.4.D.a., 3.4.4.D.d.	B	120	<i>What Goes Around?</i> explains the motion of the Earth and Moon relative to the Sun and to one another. Diagrams shows Earth's orbit around the Sun and the Moon's orbit around Earth.	Earth Moon Sun
What Is Wool? ISBN 0022858482 6 PK ISBN 0022865462	3.5.4.C.c., 3.6.4.A.a., 3.6.4.C.f., 3.6.4.C.g.	H	330	<i>What Is Wool?</i> explains that wool is produced by sheep and used by humans. The process of producing clothing using wool is described.	sheep wool yarn

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TITLE	PA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
What People and Animals Need ISBN 0022846085 6 PK ISBN 0022863990	3.3.4.A.c.	B	310	<i>What People and Animals Need</i> identifies that both people and animals need food, water, air, and shelter to live. The terms <i>breathe</i> , <i>energy</i> , and <i>shelter</i> are defined.	breathe energy shelter
What Sounds Say * ISBN 002285844X 6 PK ISBN 002286556X	3.3.4.C.a., 3.8.4.A.b., 3.8.4.A.d.	F	130	<i>What Sounds Say</i> explains that sounds can be used to communicate and that some sounds, such as sirens and train whistles, are used to indicate danger.	bell siren sound
What Would We Do Without Bees? * ISBN 0022846131 6 PK ISBN 0022864040	3.3.4.A.a., 3.6.4.A.a.	E	430	<i>What Would We Do Without Bees?</i> describes the role of bees in pollination of plants and in honey production. The process of pollination of an apple tree is illustrated.	honey nectar pollen
When the Weather Changes * ISBN 0022846190 6 PK ISBN 0022864105	3.1.4.C.a., 3.1.4.E.a., 3.5.4.C.c.	E	230	<i>When the Weather Changes</i> describes the weather, activities, and clothing commonly associated with each season.	fall season weather
Where Are They? * ISBN 0022858431 6 PK ISBN 0022865535	3.4.4.A.b., 3.4.4.C.e.	F	100	<i>Where Are They?</i> uses position words, such as <i>on</i> , <i>under</i> , <i>behind</i> , <i>in</i> , and <i>inside</i> to describe the position of animals relative to objects.	bush egg log

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Pennsylvania Academic Standards for Science and Technology

Standard

3.1.4 Unifying Themes

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

3.1.4.A. Know that natural and human-made objects are made up of parts.

3.1.4.A.a. • Identify and describe what parts make up a system.

3.1.4.A.b. • Identify system parts that are natural and human-made (e.g., ball point pen, simple electrical circuits, plant anatomy).

3.1.4.A.c. • Describe the purpose of analyzing systems.

3.1.4.A.d. • Know that technologies include physical technology systems (e.g., construction, manufacturing, transportation), informational systems and biochemical-relate

3.1.4.B. Know models as useful simplifications of objects or processes.

3.1.4.B.a. • Identify different types of models.

3.1.4.B.b. • Identify and apply models as tools for prediction and insight.

3.1.4.B.c. • Apply appropriate simple modeling tools and techniques.

3.1.4.B.d. • Identify theories that serve as models (e.g., molecules).

3.1.4.C. Illustrate patterns that regularly occur and reoccur in nature.

3.1.4.C.a. • Identify observable patterns (e.g., growth patterns in plants, crystal shapes in minerals, climate, structural patterns in bird feathers).

3.1.4.C.b. • Use knowledge of natural patterns to predict next occurrences (e.g., seasons, leaf patterns, lunar phases).

3.1.4.D. Know that scale is an important attribute of natural and human made objects, events and phenomena.

3.1.4.D.a. • Identify the use of scale as it relates to the measurement of distance, volume and mass.

3.1.4.D.b. • Describe scale as a ratio (e.g., map scales).

3.1.4.D.c. • Explain the importance of scale in producing models and apply it to a model.

3.1.4.E. Recognize change in natural and physical systems.

3.1.4.E.a. • Recognize change as fundamental to science and technology concepts.

3.1.4.E.b. • Examine and explain change by using time and measurement.

3.1.4.E.c. • Describe relative motion.

3.1.4.E.d. • Describe the change to objects caused by heat, cold, light or chemicals.

3.2.4 Inquiry and Design

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

- 3.2.4.A. Identify and use the nature of scientific and technological knowledge.
- 3.2.4.A.a. • Distinguish between a scientific fact and a belief.
- 3.2.4.A.b. • Provide clear explanations that account for observations and results.
- 3.2.4.A.c. • Relate how new information can change existing perceptions.
- 3.2.4.B. Describe objects in the world using the five senses.
- 3.2.4.B.a. • Recognize observational descriptors from each of the five senses (e.g., see-blue, feel-rough).
- 3.2.4.B.b. • Use observations to develop a descriptive vocabulary.
- 3.2.4.C. Recognize and use the elements of scientific inquiry to solve problems.
- 3.2.4.C.a. • Generate questions about objects, organisms and/or events that can be answered through scientific investigations.
- 3.2.4.C.b. • Design an investigation.
- 3.2.4.C.c. • Conduct an experiment.
- 3.2.4.C.d. • State a conclusion that is consistent with the information.
- 3.2.4.D. Recognize and use the technological design process to solve problems.
- 3.2.4.D.a. • Recognize and explain basic problems.
- 3.2.4.D.b. • Identify possible solutions and their course of action.
- 3.2.4.D.c. • Try a solution.
- 3.2.4.D.d. • Describe the solution, identify its impacts and modify if necessary.
- 3.2.4.D.e. • Show the steps taken and the results.

3.3.4 Biological Sciences

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

- 3.3.4.4.A. Know the similarities and differences of living things.
- 3.3.4.4.A.a. • Identify life processes of living things (e.g., growth, digestion, react to environment).
- 3.3.4.4.A.b. • Know that some organisms have similar external characteristics (e.g., anatomical characteristics; appendages, type of covering, body segments) and that similarities and differences are related to environmental habitat.
- 3.3.4.4.A.c. • Describe basic needs of plants and animals.
- 3.3.4.4.B. Know that living things are made up of parts that have specific functions.
- 3.3.4.4.B.a. • Identify examples of unicellular and multicellular organisms.
- 3.3.4.4.B.b. • Determine how different parts of a living thing work together to make the organism function.
- 3.3.4.4.C. Know that characteristics are inherited and, thus, offspring closely resemble their parents.
- 3.3.4.4.C.a. • Identify characteristics for animal and plant survival in different climates.
- 3.3.4.4.C.b. • identify physical characteristics that appear in both parents and offspring and differ between families, strains or species.

3.3.4.4.D. Identify changes in living things over time.

3.3.4.4.D.a. • Compare extinct life forms with living organisms.

Ecosystem Standards are in the Environment and Ecology Standard Category (4.6).

3.4.4 Physical Science, Chemistry and Physics

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

3.4.4.A. Recognize basic concepts about the structure and properties of matter.

3.4.4.A.a. • Describe properties of matter (e.g., hardness, reactions to simple chemical tests).

3.4.4.A.b. • Know that combining two or more substances can make new materials with different properties.

3.4.4.A.c. • Know different material characteristics (e.g., texture, state of matter, solubility).

3.4.4.B. Know basic energy types, sources and conversions.

3.4.4.B.a. • Identify energy forms and examples (e.g., sunlight, heat, stored, motion).

3.4.4.B.b. • Know the concept of the flow of energy by measuring flow through an object or system.

3.4.4.B.c. • Describe static electricity in terms of attraction, repulsion and sparks.

3.4.4.B.d. • Apply knowledge of the basic electrical circuits to design and construction simple direct current circuits.

3.4.4.B.e. • Classify materials as conductors and nonconductors.

3.4.4.B.f. • Know and demonstrate the basic properties of heat by producing it in a variety of ways.

3.4.4.B.g. • Know the characteristics of light (e.g., reflection, refraction, absorption) and use them to produce heat, color or a virtual image.

3.4.4.C. Observe and describe different types of force and motion.

3.4.4.C.a. • Identify characteristics of sound (pitch, loudness and echoes)

3.4.4.C.b. • Recognize forces that attract or repel other objects and demonstrate them.

3.4.4.C.c. • Describe various types of motions.

3.4.4.C.d. • Compare the relative movement of objects and describe types of motion that are evident.

3.4.4.C.e. • Describe the position of an object by locating it relative to another object or the background (e.g., geographic direction, left, up).

3.4.4.D. Describe the composition and structure of the universe and the earth's place in it.

3.4.4.D.a. • Recognize earth's place in the solar system.

3.4.4.D.b. • Explain and illustrate the causes of seasonal changes.

3.4.4.D.c. • Identify planets in our solar system and their general characteristics.

3.4.4.D.d. • Describe the solar system motions and use them to explain time (e.g., days, seasons), major lunar phases and eclipses.

Refer to Technology Standard Category 3.6 for applied uses of these concepts and principles.

3.5.4 Earth Sciences

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

3.5.4.A. Know basic landforms and earth history.

3.5.4.A.a. • Describe earth processes (e.g., rusting, weathering, erosion) that have affected selected physical features in students' neighborhoods.

3.5.4.A.b. • Identify various earth structures (e.g., mountains, faults, drainage basins) through the use of models.

3.5.4.A.c. • Identify the composition of soil as weathered rock and decomposed organic remains.

3.5.4.A.d. • Describe fossils and the type of environment they lived in (e.g., tropical, aquatic, desert).

3.5.4.B. Know types and uses of earth materials.

3.5.4.B.a. • Identify uses of various earth materials (e.g., buildings, highways, fuels, growing plants).

3.5.4.B.b. • Identify and sort earth materials according to a classification key (e.g., soil/rock type).

3.5.4.C. Know basic weather elements.

3.5.4.C.a. • identify cloud types.

3.5.4.C.b. • Identify weather patterns from data charts (including temperature, wind direction and speed, precipitation) and graphs of the data.

3.5.4.C.c. • Explain how the different seasons effect plants, animals, food availability and daily human life.

3.5.4.D. Recognize the earth's different water resources.

3.5.4.D.a. • Know that approximately three-fourths of the earth is covered by water.

3.5.4.D.b. • identify and describe types of fresh and salt-water bodies.

3.5.4.D.c. • Identify examples of water in the form of solid, liquid and gas on or near the surface of the earth.

3.5.4.D.d. • Explain and illustrate evaporation and condensation.

3.5.4.D.e. • Recognize other resources available from water (e.g., energy, transportation, minerals, food).

Refer to Environment and Ecology Standards Categories 4.1, 4.3, 4.8 for standards that deal with environmental impact of Earth structures and forces.

3.6.4 Technology Education

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

3.6.4.A. Know that biotechnologies relate to propagating, growing, maintaining, adapting, treating and converting.

3.6.4.A.a. • Identify agricultural and industrial production processes that involve plants and animals.

3.6.4.A.b. • Identify waste management treatment processes.

3.6.4.A.c. • Describe how knowledge of the human body influences or impacts ergonomic design.

3.6.4.A.d. • Describe how biotechnology has impacted various aspects of daily life (e.g., health care, agriculture, waste treatment).

3.6.4.B. Know that information technologies involve encoding, transmitting, receiving, storing, retrieving and decoding.

3.6.4.B.a. • Identify electronic communication methods that exist in the community (e.g., digital cameras, telephone, internet, television, fiber optics).

3.6.4.B.b. • Identify graphic reproduction methods.

3.6.4.B.c. • Describe appropriate image generating techniques (e.g., photography, video).

- 3.6.4.B.d. • Demonstrate the ability to communicate an idea by applying basic sketching and drawing techniques.
- 3.6.4.C. Know physical technologies of structural design, analysis and engineering, finance, production, marketing, research and design.
- 3.6.4.C.a. • Identify and group a variety of construction tasks.
- 3.6.4.C.b. • Identify the major construction systems present in a specific local building.
- 3.6.4.C.c. • Identify specific construction systems that depend on each other in order to complete a project.
- 3.6.4.C.d. • Know skills used in construction.
- 3.6.4.C.e. • Identify examples of manufactured goods present in the home and school.
- 3.6.4.C.f. • Identify basic resources needed to produce a manufactured item.
- 3.6.4.C.g. • Identify basic component operations in a specific manufacturing enterprise (e.g., cutting, shaping, attaching).
- 3.6.4.C.h. • Identify waste and pollution resulting from a manufacturing enterprise.
- 3.6.4.C.i. • Explain and demonstrate the concept of manufacturing (e.g., assemble a set of papers or ball point pens sequentially, mass produce an object).
- 3.6.4.C.j. • Identify transportation technologies of propelling, structuring, suspending, guiding, controlling and supporting.
- 3.6.4.C.k. • Identify and experiment with simple machines used in transportation systems.
- 3.6.4.C.l. • Explain how improved transportation systems have changed society.

3.7.4 Technological Devices

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

- 3.7.4.A. Explore the use of basic tools, simple materials and techniques to safely solve problems.
- 3.7.4.A.a. • Describe the scientific principles on which various tools are based.
- 3.7.4.A.b. • Group tools and machines by their function.
- 3.7.4.A.c. • Select and safely apply appropriate tools and materials to solve simple problems.
- 3.7.4.B. Select appropriate instruments to study materials.
- 3.7.4.B.a. • Develop simple skills to measure, record, cut and fasten.
- 3.7.4.B.b. • Explain appropriate instrument selection for specific tasks.

Computer literacy, including the use of hardware and software in standard statements C, D, and E, should be integrated across all content areas.

- 3.7.4.C. Identify basic computer operations and concepts.
- 3.7.4.C.a. • Identify the major parts necessary for a computer to input and output data.
- 3.7.4.C.b. • Explain and demonstrate the basic use of input and output devices (e.g., keyboard, monitor, printer, mouse).
- 3.7.4.C.c. • Explain and demonstrate the use of external and internal storage devices (e.g., disk drive, CD drive).
- 3.7.4.D. Use basic computer software.
- 3.7.4.D.a. • Apply operating system skills to perform basic computer tasks.
- 3.7.4.D.b. • Apply basic word processing skills.

- 3.7.4.D.c. • Identify and use simple graphic and presentation graphic materials generated by the computer.
- 3.7.4.D.d. • Apply specific instructional software.
- 3.7.4.E. Identify basic computer communications systems.
- 3.7.4.E.a. • Apply a web browser.
- 3.7.4.E.b. • Apply basic electronic mail functions.
- 3.7.4.E.c. • Use on-line searches to answer age appropriate questions.

3.8.4 Science, Technology and Human Endeavors

Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:

- 3.8.4.A. Know that people select, create and use science and technology and that they are limited by social and physical restraints.
- 3.8.4.A.a. • Identify and describe positive and negative impacts that influence or result from new tools and techniques.
- 3.8.4.A.b. • Identify how physical technology (e.g., construction, manufacturing, transportation), informational technology and biotechnology are used to meet human needs.
- 3.8.4.A.c. • Describe how scientific discoveries and technological advancements are related.
- 3.8.4.A.d. • Identify interrelationships among technology, people and their world.
- 3.8.4.A.e. • Apply the technological design process to solve a simple problem.
- 3.8.4.B. Know how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.
- 3.8.4.B.a. • Identify and distinguish between human needs and improving the quality of life.
- 3.8.4.B.b. • Identify and distinguish between natural and human-made resources.
- 3.8.4.B.c. • Describe a technological invention and the resources that were used to develop it.
- 3.8.4.C. Know the pros and cons of possible solutions to scientific and technological problems in society.
- 3.8.4.C.a. • Compare the positive and negative expected and unexpected impacts of technological change.
- 3.8.4.C.b. • Identify and discuss examples of technological change in the community that have both positive and negative impacts.