Wayne Central School District
Ontario Center, NY 14519

FIFTH GRADE
Draft

Revised: June 12, 2001
July 24, 2001

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I. District Philosophy

The Wayne Central School District believes that the goal of education is the all-around development of each student. The role of the school is to enable individuals to develop to their fullest potential.

The school, in cooperation with the home and community, will assist the student with intellectual, social, cultural, emotional, physical and moral growth. The school should help create within each student an awareness of civic responsibilities and respect for authority to assist the student in becoming a well-integrated, responsible person capable of assuming a vital role in an evolving civilization.

The Wayne Central School District subscribes to the general theory of individual differences; namely, that each student is an individual and has innate abilities, ambitions, and emotions. In the process of educating this individual, the program should provide a challenge while reflecting a concern for needs based on individual capabilities.

The Wayne Central School District further subscribes to the following fundamental principles:

1. **Children, regardless of potential, are capable of learning and acquiring the skill and knowledge needed to function to the best of their ability in our society,**

2. **Our responsibility is to see that children learn. The energies of all participants should be focused on achieving the desired outcomes. Accountability does not end with following established rules and procedures; its essence is found in results,**

3. **Minimum competence, while necessary, is not enough. Successful participation in our society demands much more. All children are entitled to approved curriculum, to instructional methods, and to expectations that challenge them to perform at their best, and help them to become truly proficient in knowledge and skills,**

4. **Every child in New York State is entitled to the resources necessary to provide the sound, basic education that the state constitution requires,**

5. **Each participant in the educational system should have the opportunity to effectively discharge his or her responsibility, and each participant should be held accountable for achieving desired results. This principle applies to all participants in the educational process – students, parents, teachers, counselors, librarians, administrators, the Board of Education, and others,**

6. **Achievement of desired results by individuals and groups should be rewarded. Creativity in our students needs to be nurtured and encouraged. Occasional failure in a large and diverse system us probably unavoidable. However, failure should not be permitted to persist. When it occurs, with either individuals or groups, help should be provided and the situation changed.**

II. District Mission Statement:

Based upon the belief that all students can learn, the staff of Wayne Central School district accepts the responsibility to teach all students regardless of differences, the fundamental skills. We further accept the responsibility to challenge all students to attain higher levels of achievement. Wayne Central will provide the opportunity, environment, and encouragement to meet this goal while developing the whole child physically, emotionally, and culturally.

III. NYS Learning Standards:

Health, Physical Education, and Home Economics

1. Personal Health and Fitness – Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.
2. A Safe and Healthy Environment – Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment
3. Resource Management – Students will understand and be able to manage their personal and community resources.

Mathematics, Science, and Technology

1. Analysis, Inquiry, and Design – Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.
2. Information Systems – Students will access, generate, process, and transfer information using appropriate technologies
3. Mathematics – Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry.
4. Science – Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.
5. Technology – Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.
6. Interconnectedness: Common Themes – Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.
7. Interdisciplinary Problem Solving – Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions.

English Language Arts

1. Students will listen, speak, read and write for information and understanding. As listeners and readers, students will collect data, facts and ideas; discover relationships, concepts, and generalizations; and use knowledge generated from oral, written, and electronically produced texts. As speakers and writers, they will use oral and written language that follows the accepted conventions of the English language to acquire, interpret, apply, and transmit information.
2. Language for Literary Response and Expression – Students will read and listen to oral, written, and electronically produced texts and performances from American and world literature; relate texts and performances to their own lives; and develop an understanding of the diverse social, historical, and cultural dimensions the texts and performances represent. As speakers and writers. Students will use oral and written language that follows the accepted conventions of the English language for self-expression and artistic creation.
3. Language for Critical Analysis and Evaluation – Students will listen, speak, read and write for critical analysis and evaluation. As listeners and readers, students will analyze experiences, ideas, information, and issues presented by others using a variety of established criteria. As speaker and writers, they will use oral and written language that follows the accepted conventions of the English language to present, from a variety of perspectives, their opinions and judgements on experiences, ideas, information and issues.
4. Language for Social Interaction – Students will listen, speak, read, and write for social interaction. Students will use oral and written language that follows the accepted conventions of the English language for effective social communication with a wide variety of people. As reader and listeners, they will use the social communications of others to enrich their understanding of people and their views.

Languages Other Than English

1. Communication Skills – Students will be able to use a language other than English for communication.
2. Cultural Understanding – Students will develop cross-cultural skills and understandings.

The Arts

1. Creating, Performing, and Participating in the Arts – Students will actively engage in the processes that constitute creation and performance in the arts (dance, mucus, theatre, and visual arts) and participate in various roles in the arts.
2. Knowing and Using arts materials and Resources – Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.
3. Responding to and Analyzing Works of Art – Students will respond critically to a variety of works in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought.
4. Understanding the Cultural Contributions of the Arts – Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society.

Career Development and Occupational Studies

1. Career Development – Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.
2. Integrated Learning – Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.
3. Universal Foundation Skills – Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.
4. Career Majors – Students who choose a career major will acquire the career-specific technical knowledge/skills necessary to progress toward gainful employment, career advancement, and success in postsecondary programs.

Social Studies

1. History of the United State and New York – Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras themes, developments, and turning points in the history of the United States and New York.
2. World History – Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments and turning points in world history and examine the broad sweep of history from a variety of perspectives.
3. Geography – Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live – local, national and global – including the distribution of people, places, and environments over the Earth's surface.
4. Economics – Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and nonmarket mechanisms.
5. Civics, Citizenship, and Government – Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States Constitution; the basic civil values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship including avenues of participation.

IV. Commencement Outcomes

James A. Beneway High School
"Adult Roles, Skills & Knowledge"

CITIZEN

A citizen is a responsible, law-abiding member of society who:

- Has a strong sense of values;
- Knows right from wrong;
- Is aware of community news, issues and norms;
- Accepts diversity in ethnicity and belief;
- Has knowledge of government at all levels and issues relative to each;
- Associates with others in positive and productive ways.

LIFE - LONG LEARNER

A life-long learner is one who perseveres, is self-motivated, is innately curious, focused and:

- Is able to set goals;
- Adheres to deadlines/due-dates, has time management skills and abilities;
- Is a problem solver, can define problems, analyze information and task analyze/prioritize potential solutions, has the ability to select the best "tool/strategy" for the situation, and can enlist others in the process of evaluation and refocusing.

LEADER

A leader is a problem solver with effective communication skills. He/she has an ability to motivate others and:

- Is a strong willed person with vision, beliefs and convictions to carry out each.
- Is able to recognize and effectively use all resources, such as material, time and human
- Is responsible and accountable for self and others.

WORKER/WAGE EARNER/BUSINESS OWNER

A worker/wage earner is an individual who is trust worthy, moral and ethical, and who:

- Possess basic job skills with a willingness to change, grow and develop new skills;
- Is a good communicator;
- Demonstrates leadership skills and initiative and the ability to work as a team player;
- Is responsible, reliable and respectful to others;
- Has the ability to make sound decisions.

CONSUMER

A consumer is an individual who has knowledge of the global economy and:

- Utilizes and applies budgeting skills and credit awareness;
- Maintains long-terms personal financial planning (savings, banking, retirement);
- Understand one's rights, responsibilities and risks.

COUNSELOR/TEACHER/MENTOR

A counselor/teacher/mentor is an individual who is patient, self-confident, assertive leader who:

- Is a problem solver and can guide others to solve problems;
- Is an active listener;
- Is aware of issues, societal, family, religious differences and different customs;
- Has interpersonal skills and values others opinions.

PARENT/FAMILY MEMBER

A parent/family member is an individual who:

- Is nurturing and loving;
- Displays flexibility;
- Has high character and morals;
- Is accountable and consistent with respect to expectations and follow through;
- Becomes actively involved in their children and family's education and other pursuits.

FRIEND

A friend is an individual who shows great interest and respect for others, and who:

- Is non-judgmental and available when a time of need arises;
- Is unselfish, honest, supportive, caring and genuine;
- Is an open-minded listener who seeks to understand before being understood;
- Give him/herself to other without expectations of compensation or return of favor.

V. Scope and Sequence

Wayne Central School District

SCIENCE K-5 SCOPE & SEQUENCE

MST PLANNING DOCUMENT FOR STANDARD 4
LIVING ENVIRONMENT

Key Idea 1: Living things are both similar to and different from each other and nonliving things.

Living Environment Performance Indicator 1.1 *Describe the characteristics of and variations between living and nonliving things.*

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
1.1a Animals need air, water, and food in order to live and **thrive**.	**I**	**T**	**M**	**R**	**R**	**R**	**R**
1.1b Plants require air, water, **nutrients**, and light in order to live and **thrive.**	**I**	**M**	**R**	**R**	**R**	**R**	**R**
1.1c **Nonliving** things do not live and **thrive.**		**I**	**I**	**I**	**T**	**M**	**R**
1.1d **Nonliving** things can be **human-created or naturally occurring.**				**I**	**T**	**M**	**R**

Living Environment Performance Indicator 1.2 *Describe the* **life processes** *common to all living things.*

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
1.2a Living things grow, take in nutrients, breathe, **reproduce, eliminate waste**, and die.	**I**	**I**	**I**	**T**	**E**	**M**	**R**

Key:

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Key Idea 2: Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.

Living Environment Performance Indicator 2.1 *Recognize that traits of living things are both* **inherited** *and* **acquired** *or learned.*

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
2.1a Some **traits** of living things have been inherited (e.g., color of flowers and number of limbs of animals).			**I**	**I**	**I**	**M**	**R**
2.1b Some **characteristics** result from an individual's **interactions** with the environment and cannot be inherited by the next **generation** (e.g., having scars; riding a bicycle).			**I**	**I**	**I**	**M**	**R**

Living Environment Performance Indicator 2.2 *Recognize that for humans and other living organisms there is genetic continuity between generations.*

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
2.2a Plants and animals closely **resemble** their parents and other individuals in their **species**.		**I**	**T**	**M**	**R**	**R**	**R**
2.2b Plants and animals can **transfer** specific traits to their **offspring** when they reproduce.			**I**	**I**	**I**	**M**	**R**

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Key Idea 3: Individual organisms and species change over time.

Living Environment Performance Indicator 3.1 *Describe how the* **structures** *of plants and animals* **compliment** *the environment of the plant or animal.*

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
3.1a Each animal has different **structures** that serve different **functions** in **growth, survival**, and reproduction. • Wings, legs, or fins enable some animals to seek shelter and to escape **predators**. • The mouth, including teeth, jaws, and tongue, enables some animals to eat and drink. • Eyes, nose, ears, tongue, and skin of some animals enable the animals to sense their surroundings. • Claws, shells, spines, feathers, fur, scales, and color of body covering enable them to **obtain** food. • Some animals have parts that are used to produce sounds and smells to help the animal meet its needs. • The characteristics os some animals change as **seasonal conditions** change (e.g., fur grows and is shed to help **regulate** body heat; body fat is a form of **stored food energy** as the season changes).	**I**	**I**	**T**	**T**	**T**	**M**	**R**

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Major Understandings	PK	K	1	2	3	4	5
3.1b Each plant has different structures that serve different functions in growth, survival, and reproduction. • Roots help support the plant and take in water and nutrients. • Leaves help plants **utilize** sunlight to make food for the plant. • Stems, stalks, trunks, and other similar structures provide support for the plant. • Some plants have flowers. • Flowers are **reproductive structures** of plants that produce fruit which contains seeds. • Seeds contain stored food that aids in **germination** and the growth of young plants.		**I**	**T**	**T**	**E**	**M**	
3.1c In order to survive in their environment, plants and animals must be **adapted** to that environment. • Seeds **disperse** by a plant's own mechanism and/or in a variety of ways that can include wind, water, and animals. • Leaf, flower, stem, and root **adaptations** may include **variations** in size, shape, thickness, color, small, and texture. • Animal adaptations include: **coloration** for **warning** or **attraction, camouflage, defense mechanisms,** movement, **hibernation,** and migration.	**-**	**-**	**I**	**T**	**T**	**M**	**R**

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Living Environment Performance Indicator 3.2 *Observe that differences within a species may give individuals an advantage in surviving and reproducing.*

Major Understandings	PK	K	1	2	3	4	5
3.2a Individuals within a species may compete each other for food, mates, space, water, and shelter in their environment.			**I**	**I**	**M**	**R**	**R**
3.2b All individuals have **variations**, and because of these variations, individuals of a species may have an **advantage** in surviving and reproducing.				**I**	**M**	**R**	**R**

Key Idea 4: The continuity of life is sustained through reproduction and development.

Living Environment Performance Indicator 4.1 *Describe the major stages in the life cycles of selected plants and animals.*

Major Understandings	PK	K	1	2	3	4	5
4.1a Plants and animals have **life cycles**. These may include beginning of a life, developing into an adult, reproduction as an adult, and eventually death.		**I**	**I**	**T**	**M**	**R**	**R**
4.1b Each kind of a plant goes through its own stages of growth and development that may include seed, young plant, and **mature** plant.		**I**	**I**	**T**	**E**	**M**	
4.1c The length of time from beginning of development to death of the plant is called its **life span**.		**I**	**I**	**T**	**E**	**M**	**R**
4.1d **Life cycles** of some plants include changes from seed to mature plant.		**I**	**I**	**T**	**E**	**M**	
4.1e Each **generation** of animals goes through changes in form from young to adult. This completed **sequence of changes** in form is called a life cycle. Some insects change from egg to **larva to pupa** to adult.			**I**	**T**	**M**	**R**	**R**

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Major Understandings	PK	K	1	2	3	4	5
4.1f Each kind of animal goes through its own stages of growth and development during its life span.			**I**	**T**	**M**	**R**	**R**
4.1g The length of time from an animal's birth to its death is called its life span. Life spans of different animals vary.			**I**	**T**	**M**	**R**	**R**

Living Environment Performance Indicator 4.2 *Describe evidence of growth,* **repair***, and* **maintenance***, such as nails, hair, and bone, and the healing of cuts and bruises.*

Major Understandings	PK	K	1	2	3	4	5
4.2a Growth is the process by which plants and animals increase in size.	**I**	**M**	**R**	**R**	**R**	**R**	**R**
4.2b Food supplies the energy and materials necessary for growth and repair.	**I**	**T**	**E**	**E**	**E**	**M**	**R**

Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.

Living Environment Performance Indicator 5.1 *Describe the basic* **life functions** *of common living* **specimens** *(e.g., guppies, mealworms, gerbils).*

Major Understandings	PK	K	1	2	3	4	5
5.1a All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.		**I**	**I**	**T**	**M**	**R**	**R**
5.1b An **organism's external physical features** can enable it to carry out life functions in its particular environment.			**I**	**I**	**T**	**M**	**R**

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Living Environment Performance Indicator 5.2 *Describe some survival behaviors of common living* **specimens**.

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
5.2a Plants **respond** to changes in their environment. For example, the leaves of some green plants change positions as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow.		**T**	**E**	**M**	**R**	**R**	**R**
5.2b Animals respond to change in their environment, (e.g., **perspiration**, heart rate, breathing rate, eye blinking, **shivering** and **salivating**).			**I**	**T**	**M**	**R**	**R**
5.2c Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment.	**I**	**T**	**T**	**T**	**M**	**R**	**R**
5.2d Some animals, including humans, move from place to place to meet their needs.		**I**	**T**	**T**	**M**	**R**	**R**
5.2e Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur.		**I**	**T**	**T**	**M**	**R**	
5.2f Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, **hibernating**, hunting, **migrating**, and **communicating**.		**I**	**T**	**T**	**M**	**R**	**R**
5.2g The health, gorwth, and development of ogranisms are affected by environmental conditions such as the availablity of food, air, water, space, shelter, heat, and sunlight.		**I**	**T**	**M**	**R**	**R**	**R**

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Living Environment Performance Indicator 5.3 *Describe the factors that help* **promote** *good health and growth in humans.*

Major Understandings	PK	K	1	2	3	4	5
5.3a Humans need a variety of healthy foods, exercise and rest in order to grow and maintain good health.	**I**	**T**	**M**	**R**	**R**	**R**	**R**
5.3b Good health habits include hand washing and personal cleanliness; avoiding **harmful substances** (including alcohol, tobacco, illicit drugs); eating a balanced diet; **engaging in** regular exercise.	**I**	**T**	**T**	**T**	**M**	**R**	**R**

Key Idea 6: Plants and animals depend on each other and their physical environment.

Living Environment Performance Indicator 6.1 *Describe how plants and animals, including humans, depend upon each other and the nonliving environment.*

Major Understandings	PK	K	1	2	3	4	5
6.1a Green plants are producers because they provide the **basic food supply** for themselves and animals.			**I**	**T**	**T**	**M**	**R**
6.1b All animals depend on plants. Some animals (predators) eatother animals (prey).		**I**	**T**	**T**	**M**	**R**	**R**
6.1c Animals that eat plants for food may in turn become food for other animals. This sequence is called a **food chain**.		**I**	**T**	**T**	**M**	**R**	**R**
6.1d **Decomposers** are living things that play a vital role in recycling nutrients.					**T**	**M**	**R**
6.1e An organism's **pattern of behavior** is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment.			**I**	**T**	**M**	**R**	**R**

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Living Environment Performance Indicator 6.2 *Describe the relationship of the Sun as an* **energy source** *for living and nonliving cycles.*

Major Understandings	PK	K	1	2	3	4	5
6.2a Plants **manufacture** food by **utilizing** air, water, and energy from the Sun.				T	E	M	R
6.2b The Sun's energy is transferred on Earth from plants to animals through the food chain.				T	E	M	R
6.2c **Heat energy** from the Sun powers the water cycle (see Physical Science Key Idea 2)			I	T	E	M	

Key Idea 7: Human decisions and activities have had a profound impact on the physical and living environments.

Living Environment Performance Indicator 7.1 *Identify ways in which humans have changed their environments and the effects of those changes.*

Major Understandings	PK	K	1	2	3	4	5
7.1a Humans **depend** on their natural and **constructed environments**.		I	T	M	R	R	R
7.1b Over time humans have changed their environment by **cultivating crops** and raising animals, creating shelter, using energy, manufacturing goods, developning means of transportation, **changing populations**, and carrying out other activities.			I	I	T	M	R
7.1c Humans, as individuals or **communities**, **change the environments** in ways that can either be helpful or harmful for themselves and other organisms.			I	I	T	M	R

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Wayne Central School District

SCIENCE K-5 SCOPE & SEQUENCE

MST PLANNING DOCUMENT FOR STANDARD 4
THE PHYSICAL SETTING

Key Idea 1: The Earth and celestial phenomena can be described by principles of relative motion and perspective.

Physical Setting Performance Indicator 1.1 ***Describe patterns of daily, monthly, and seasonal changes in their environment.***

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
1.1a **Natural cycles** and patterns include:							
• Earth spinning around once every 24 hours **(rotation)** resulting in day and night			**I**	**I**	**M**	**R**	**R**
• Earth moving in a path around the Sun **(revolution)**, resulting in one **earth year**			**I**	**I**	**M**	**R**	**R**
• The length of daylight and darkness varying with the seasons		**I**	**T**	**T**	**M**	**R**	
• Weather changing from day to day and through the seasons	**I**	**T**	**T**	**M**	**R**	**R**	**R**
• The appearance of the Moon changing as it moves in a path around Earth to complete a single cycle.		**I**	**I**	**I**	**M**	**R**	

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Major Understandings	PK	K	1	2	3	4	5
• Second, minute, hour			**I**	**I**	**M**	**R**	**R**
• Week, month		**I**	**I**	**I**	**M**		
1.1c The Sun and other stars appear to move in a **recognizable pattern** both daily and **seasonally.**			**I**	**I**	**M**		

Key Idea 2: Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.

Physical Setting Performance Indicator 2.1 *Describe the relationship among air, water and land on Earth.*

Major Understandings	PK	K	1	2	3	4	5
2.1a Weather is the condition of the outside air at a particular moment.	**I**	**I**	**I**	**M**	**R**		
2.1b Weather can be described and measured by: • Temperature • **Wind speed** and direction • Form and amount of **precipitation** • General sky conditions (cloudy, sunny, partly cloudy)	**I**	**I**	**T**	**M**	**R**		

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E Expand

Major Understandings	PK	K	1	2	3	4	5
2.1c Water is recycled by natural processes on Earth.							
• **Evaporation:** changing of water (liquid) into water vapor (gas)				**M**	**R**		
• **Condensation:** changing of **water vapor** (gas) into **water (liquid)**				**M**	**R**		
• **Precipitation:** rain, sleet, snow, hail				**M**	**R**		
• **Run-off:** water flowing on the Earth's surface				**T**	**M**		**R**
• **Groundwater:** water that moves downward into the ground.				**T**	**M**		**R**
2.1d **Erosion and deposition** result from the interaction among air, water, and land. • Interaction between air and water breaks down earth materials • :Pieces of earth material may be moved by air, water, wind, and **gravity** • Pieces of earth material will settle or deposit on land or in the water in different places • Soil is composed of broken-down pieces of living and non-living **earth material**					**M**		**R**
2.1e **Extreme natural events** (floods, fires, earthquakes, volcanic eruptions, hurricanes, tornadoes, and other severe storms) may have **positive or negative impacts** on living things.				**I**	**M**		**R**

Key:

I Skill is introduced but not benchmarked
T Skill receives considerable instruction (taught but not benchmarked)
M Concept is mastered and benchmarked. Note that a skill may be introduced and benchmarked in one year. In those cases, only an M appears
R Concept is reviewed
E Expand

Key Idea 3: Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity

Physical Setting Performance Indicator 3.1 *Observe and describe properties of materials using appropriate tools.*

Major Understandings	PK	K	1	2	3	4	5
3.1a Matter takes up space and has **mass (weight)**. Two objects cannot occupy the same place at the same time.			**T**	**M**	**R**	**R**	**R**
3.1b Matter has properties that (color, hardness, odor, sound, taste, etc.) that can be observed thorugh the senses.		**I**	**T**	**M**		**R**	**R**
3.1c Objects have properties that can be observed, described and/or measured: length, width, **volume**, size, shape, mass or weight, **temperature**, **texture**, **reflectiveness of light.**		**I**	**T**	**T**	**T**	**M**	**R**
3.1d Measurements can be made with **standard metric units** and non-standard units (*Note: Exceptions to the metric system usage are found in meteorology.)*		**I**	**T**	**T**	**T**	**M**	**R**
3.1e The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, **magnetism**). Properties can be observed or measured with tools such as **hand lenses, metric rulers**, thermometers, **balances, magnets, circuit testers** and **graduated cylinders**.			**I**	**T**	**T**	**M**	
3.1f Objects and/or materials can be sorted or classified according to their properties.	**I**	**T**	**E**	**E**	**E**	**M**	**R**
3.1g Some properties of an object are dependent on the **conditions of the present surroundings** in which the object exists. • temperature – hot or cold • lighting – shadows, color • moisture – wet or dry		**I**	**T**	**M**	**R**	**R**	**R**

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Physical Setting Performance Indicator 3.2 *Describe chemical and physical changes, including* **changes in state of matter**.

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
3.2a Matter exists in three states: solid, liquid, gas		**I**	**T**	**M**	**R**	**R**	**R**
• solids have a definite shape and volume			**I**	**T**	**T**	**M**	**R**
• liquids do not have a definite shape but have a definite volume			**I**	**T**	**T**	**M**	**R**
• gases do not hold their shape or volume			**I**	**T**	**T**	**M**	**R**
3.2b Temperature can affect the state of matter of a substance		**I**	**I**	**T**	**M**	**R**	**R**
3.2c Changes in the **properties** or materials of objects can be observed and described.	**I**	**I**	**T**	**T**	**M**	**R**	**R**

Key Idea 4: Energy exists in many forms, and when these forms change energy is conserved.

Physical Setting Performance Indicator 4.1 *Describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.*

Major Understandings	**PK**	**K**	**1**	**2**	**3**	**4**	**5**
4.1a Energy exists in various forms: heat, electric, sound, chemical, mechanical, light			**I**	**I**	**T**	**M**	**R**
4.1b Energy can be transferred from one place to another.				**I**	**T**	**M**	**R**
4.1c Some materials transfer energy better than others (heat and electricity).				**I**	**T**	**M**	**R**

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R Concept is reviewed
E Expand

Major Understandings	PK	K	1	2	3	4	5
4.1d Energy and matter interact: water is evaporated by the Sun's heat; a bulb is lighted by means of **electrical current**; a musical instrument is played to produce sound; dark colors may **absorb light**, light colors may **reflect light**.	**I**	**I**	**T**	**T**	**M**	**M**	**R**
4.1e Electricity travels in a **closed circuit**.				**T**		**M**	
4.1f Heat can be released in many ways, for example, by burning, rubbing **(friction)** or combining one substance with another.			**I**	**I**	**T**	**M**	**R**
4.1g Interactions with **forms of energy** can either by helpful or harmful.	**T**	**T**	**E**	**E**	**E**	**M**	**R**

Physical Setting Performance Indicator 4.2 *Observe the way one form of energy can be transferred into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).*

Major Understandings	PK	K	1	2	3	4	5
4.2a Every day events involve one form of energy being changed to another. • Animals convert food to heat and motion • The Sun's energy warms the air and water		**I**	**I**	**T**	**M**	**R**	**R**
4.2b Humans utilize interactions between matter and energy.							
• Chemical to electrical, light, and heat: battery and bulb				**I**	**T**	**M**	
• Electrical to sound (e.g. doorbell buzzer)				**T**		**M**	
• Mechanical to sound (e.g. musical instruments, clapping)				**T**	**M**	**R**	
• Light to electrical (e.g. solar-powered calculator)					**T**	**M**	

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R Concept is reviewed
E Expand

Physical Setting Performance Indicator 5.1 *Describe the effects of common forces (pushes and pulls) of objects, such as those caused by gravity, magnetism, and* **mechanical forces**.

Major Understandings	PK	K	1	2	3	4	5
5.1a The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).	I	T	T	M	R	R	
5.1b The **position or direction of motion** of an object can be changed by pushing or pulling.		I	I	T	M	R	
5.1c The force of gravity pulls objects toward the center of the Earth.		I	I	I	M	R	
5.1d The amount of change in the motion of an object is affected by friction.			I	I	M	R	
5.1e Magnetism is a force that may attract or **repel** certain materials.	I	I	M	R			
5.1f Mechanical energy may cause change in motion through the **application of force** and through the use of simple machines such as pulleys, levers, and inclined planes.					M		

Physical Setting Performance Indicator 5.2 *Describe how forces can operate across distances.*

Major Understandings	PK	K	1	2	3	4	5
5.2a The forces of gravity and magnetism can affect objects through gases, liquids, and solids.			I	I	M	R	R
5.2b The forces of magnetism on objects decreases as distance increases.		I	M	R	R		

Key:

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E Expand

VI. Course Overview with Major Topics

5th Grade Science Overview

In 5th grade science, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science. Critical to understanding science concepts is the use of scientific inquiry to develop explanations of natural phenomena. It is recommended that students have the opportunity to develop their skills of analysis, inquiry, and design through active laboratory work ie. Controlled Studies, Testing and Classifying Matter, Variations and Variables. It is essential that instruction focus on understanding important relationships, processes, mechanisms, and applications of concepts. Although memorization of specialized terminology and technical details is important, emphasis is on teaching science for understanding. Technology assists the students in scientific discovery, exploration activities, and problem solving. The units covered are:

Invertebrates/Wild Water/Pond Life
Mystery Matter
Rocks and Minerals
Growing and Changing.

VII. Instructional Outline

A. Rocks and Charts

1. Explain how the atmosphere, hydrosphere, and lithosphere interact, evolve and change.
   a. Recognize that rocks are composed of minerals.
   b. Identify various minerals on the basis of physical properties.
2. Describe volcano and earthquake patterns, the rock cycle, and weather and climate changes.
   a. Recognize that since the interior of the earth is hot, earthquakes and volcanoes are caused by heat flow and movement of material within the earth.
   b. Identify the various layers within the earth (crust, mantle, outer core, inner core).
   c. Recognize that continents fir together like puzzle parts showing evidence that continents were once together.
   d. Describe how the Theory of Plate Tectonics explains how the "solid" lithosphere consists of a series of plates that "float" on the partially molten section of the mantle.
   e. Understands that folded, tilted, faulted, and displaced rock layers suggest past crustal movement.
   f. Understand that most volcanic activity and the mountain building occur at the boundaries of plants, which may collide, move apart, or slide past one another which often causes earthquakes.
   g. Identify the three classes of rocks as sedimentary, igneous, and metamorphic and understand that rocks are classified according to their method of formation.
   h. Compare and contrast how types of rock material may be transformed from one type of rock to another.
3. Explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.
   a. Understand that weathering and erosion wear away the earth's surface.
   b. Understand that weathering breaks down rocks to form sediment.
   c. Understand that erosion, driven by gravity, transports sediment.
4. Scientific Inquiry
   a. Formulate questions independently with the aid of references appropriate for guiding the search for explanations of everyday observations.
   b. Construct explanations independently for natural phenomena, especially by proposing preliminary visual models of phenomena.
   c. Represent, present, and defend their proposed explanations of everyday observations so that they can be understood and assessed by others.
   d. Seek to clarify, to assess critically, and to reconcile with their own thinking the ideas presented by others, including peers, teachers, authors, and scientists.
   e. Use conventional techniques and those of their own design to make further observations and refine their explanations, guided by a need for more information.
   f. Develop, present, and defend formal research proposals for testing their own explanations of common phenomena, including ways of obtaining needed observations and ways of conducting simple controlled experiments.
   g. Carry out their research proposals, recording observations and measurements (e.g., lab notes, audio tape, computer disk, video tape) to help assess the explanation.
   h. Design charts, tables, graphs and other representations of observations in conventional and creative ways to help them address their research question or hypothesis.
   i. Interpret the organized data to answer the research question or hypothesis and to gain insight into the problem.
   j. Modify their personal understanding of phenomena based on evalutation of their hypothesis.

B. Mystery Matter

1. Develop mental models to explain common chemical reactions and changes in states of matter.
    a. Understand that all matter is made up of atoms.
    b. Understand that atoms and molecules are perpetually in motion, and the greater the temperature, the greater the motion.
    c. Understand that atoms may join together in well-defined molecules or may be arranged in regular geometric patterns.
2. Observe and describe properties of materials such as density, conductivity, and solubility.
    a. Understand the phase in which matter exists depends on the motion and attractive forces among its particles, as well as changes from one phase to another.
    b. Know that gases have no definite shape or volume and take the shape and volume of the container.
    c. Know that a liquid has definite volume, and takes the shape of the container.
    d. Know that a solid has definite shape and volume, and particles resist a change in position.
3. Distinguish between chemical and physical changes.
    a. Understand the during a physical changes a substances keeps its chemical composition and properties (ex.: freezing, melting, condensation, boiling, evaporation, tearing, crushing).
    b. Understand that mixtures are physical combinations of materials and can be separated by physical means.
4. Develop mental models to explain common chemical reactions and changes in states of matter.
    a. Understand that during a chemical change substances react in characteristic ways to form new substances with different physical and chemical properties (ex.: burning of wood, cooking of an egg, rusting or iron, souring of milk).
5. Scientific Inquiry
    a. Formulate questions independently with the aid of references appropriate for guiding the search for explanations of everyday observations.
    b. Construct explanations independently for natural phenomena, especially by proposing preliminary visual models of phenomena.
    c. Represent, present, and defend their proposed explanations of everyday observations so that they can be understood and assessed by others.
    d. Seek to clarify, to assess critically, and to reconcile with their own thinking the ideas presented by others, including peers, teachers, authors, and scientists.
    e. Use conventional techniques and those of their own design to make further observations and refine their explanations, guided by a need for more information.
    f. Develop, present, and defend formal research proposals for testing their own explanations of common phenomena, including ways of obtaining needed observations and ways of conducting simple controlled experiments.
    g. Carry out their research proposals, recording observations and measurements (e.g., lab notes, audio tape, computer disk, video tape) to help assess the explanation.
    h. Design charts, tables, graphs and other representations of observations in conventional and creative ways to help them address their research question or hypothesis.
    i. Interpret the organized data to answer the research question or hypothesis and to gain insight into the problem.
    j. Modify their personal understanding of phenomena based on evaluation of their hypothesis.

C. Growing and Changing

1. Explain the functioning of the major human organ systems and their interaction.
   a. Describe how the nervous/endocrine systems control the body's responses to changes in the environment, and how they regulate growth development and reproduction.
   b. State that hormones are produced by the endocrine system and regulate many body functions.
2. Compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.
   a. Understand that regulation of an organism's internal environment includes a variety of nervous and hormonal feedback systems.
3. Describe the importance of major nutrients, vitamins, and minerals in monitoring health and promoting growth. Also explain the need for a constant input of energy for living organisms.
   a. Identify what metabolism is and understand that metabolism can be influenced bgy hormones, exercise, diet, and aging.
4. Observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants).
   a. Understand that as an individual organism ages, various body structures and functions change.
5. Explain the functioning of the major human organ systems and their interactions.
   a. Tell how the male and female reproductive systems produce sex cells necessary to make new life.
6. Explain the role of sperm and egg cells in sexual reproduction.

Identify the male sex cell as the sperm and the female sex cell as the egg, and know that fertilization occurs when a sperm cell and an egg unite.

D. Invertebrates/Wild Water/Pond Life

a. Compare and contrast the parts of plants, animals and one-celled organisms.
   - State that living things are composed of ***cells*** and are ***microscopic*** in size
   - Identify ***nucleus***, ***cytoplasm,*** and ***cell membrane***
   - Distinguish between ***single*** and ***multi-cellular organisms***
   - Understand that cells are organized and the levels of organization for ***structure*** and ***function*** include cells, ***tissues, organs,*** and ***organ systems***

b. Describe the effects of environmental changes on human and other populations.
   - Realize that in ***ecosystems, balance*** is the result of interactions between the community members and their environment

c. Describe how living things, including humans, depend upon the living and non-living environment for their survival
   - Know that some ***microorganisms*** are essential to the survival of other living things

d. Compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.
   - Understand that the survival of an organism depends on its ability to sense and respond to its ***external*** environment
   - Define that a ***population*** consists of all the organisms found together at a given place and time
   - Observe that ***lack of resources*** limits the growth of a particular population

e. Describe the effects of environmental changes on humans and other populations.
   - Realize that the environments may be ***altered*** through the activity of organisms
   - Realize that ***overpopulation*** by any species impacts the environment due to the increased use of resources

f. Describe factors responsible for competition within species and the significance of that competition.
   - Observe that organisms with similar needs may ***compete*** for food and oxygen with one another

Scientific Inquiry

Students:

- formulate questions independently with the aid of references appropriate for guiding the search for explanations of everyday observation.
- construct explanations independently for natural phenomena, especially by proposing preliminary visual models of phenomena.
- represent, present, and defend their proposed explanations of everyday observations so that they can be understood and assessed by others.
- seek to clarify, to assess critically, and to reconcile with their own thinking the ideas presented by others, including peers, teachers, authors, and scientists.
- use conventional techniques and those of their own design to make further observations and refine their explanations, guided by a need for more information.
- develop, present, and defend formal research proposals for testing their own explanations of common phenomena, including ways of obtaining needed observations and ways of conducting simple controlled experiments.
- carry out their research proposals, recording observations and measurements (e.g., lab notes, audio tape, computer disk, video tape) to help assess the explanation.
- design charts, tables, graphs and other representations of observations in conventional and creative ways to help them address their research question or hypothesis.
- interpret the organized data to answer the research question or hypothesis and to gain insight into the problem.
- modify their personal understanding of phenomena based on evaluation of their hypothesis.

VIII. Course Benchmarks

IX. Units of Study

Unit One

Rocks and Charts

A. Unit Benchmarks

1.

2.

3.

4.

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7.

8.

9.

10.

B. Unit Assessment

C. Rubric

D. Activities

1. Teacher Constructed Activities:

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

2. Textbook with Teaching Strategies

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
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5: Apply to Real World Unpredictable Situations

3. Computer Assisted Instruction

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

4. Cross Disciplinary

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

5. Miscellaneous

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

E. Vocabulary

minerals
physical properties
earthquakes
volcanoes
layers
crust
mantle
outer core
inner core
continents
Theory of Plate Tectonics
solid lithosphere
molten
mantle
folded
tilted
faulted
displaced rock
crustal
collide
move apart
slide past
sedimentary
igneous
metamorphic
method of formation
compare
contrast
transformed
weathering
erosion
wear away
sediment
gravity
transports sediment

F. References and Resources

Unit Two

Mystery Matter

A. Unit Benchmarks

1.

2.

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8.

9.

10.

B. Unit Assessment

C. Rubric

D. Activities

1. Teacher Constructed Activities:

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
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3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

2. Textbook with Teaching Strategies

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

3. Computer Assisted Instruction

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

4. Cross Disciplinary

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

5. Miscellaneous

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

E. Vocabulary

atoms
molecules
motion
phase
matter
particles
gases
shape
volume
liquid
solid
physical change
mixtures
chemical change
characteristic
chemical reaction
interactions

F. References and Resources

Unit Three

Growing and Changing

A. Unit Benchmarks

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

B. Unit Assessment

C. Rubric

D. Activities

1. Teacher Constructed Activities:

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

2. Textbook with Teaching Strategies

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

3. Computer Assisted Instruction

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

4. Cross Disciplinary

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

5. Miscellaneous

Activity	Benchmark	Standard	Application Level
a. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
b. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
c. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	
d. *Materials:*		HPEHE: MST: ELA: Arts: LOTE: CDOS: SS:	

Application Level:

1: Knowledge
2: Apply in Discipline
3: Apply Across Disciplines
4: Apply to Real World Predictable Situations
5: Apply to Real World Unpredictable Situations

E. Vocabulary

nervous system
endocrine system
reproduction
hormones
regulate
body functions
internal environment
metabolism
body structures
reproductive systems
sex cells

F. References and Resources

X. Course Assessment

XI. Curriculum Review Process