

Content and Performance

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- MUSIC
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- TECHNOLOGY

Kirkwood School District

Grade 5

August 2007





K I R K W O O D
S C H O O L D I S T R I C T

Deborah S. Holmes, Ph. D.
Assistant Superintendent
Curriculum and Instruction

August 2007

Dear Parent/Guardian,

The mission of the Kirkwood School District, a personalized educational network rich in tradition and energized **by** future possibilities, is to create environments characterized **by** a passion for learning, purposeful discovery and expectations of excellence in order to guarantee that each learner achieves personal goals, academic success, and becomes a leader in society.

The objectives of the school **district** are:

Each child will achieve personal, measurable goals as stated in his or her ongoing educational plan.

- All students will graduate.
- Each of our students will achieve at the proficient level or greater on the Missouri Achievement Test.

This booklet details the specific learner outcomes for content areas. Using this curriculum, teachers design instruction to meet the needs of students as they move toward mastery of skills, knowledge and processes.

Thank you for your partnership. Thank you also for joining us in the education of our future leaders.

Sincerely,

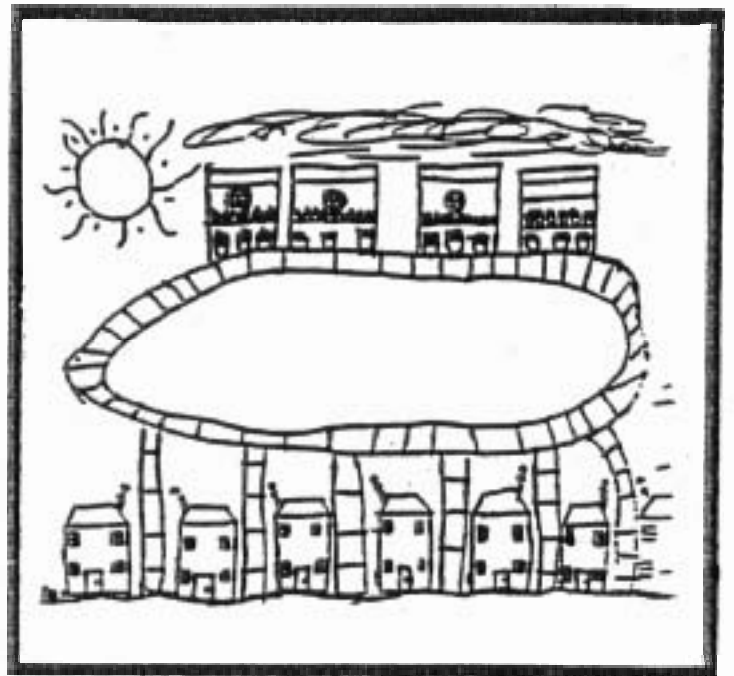
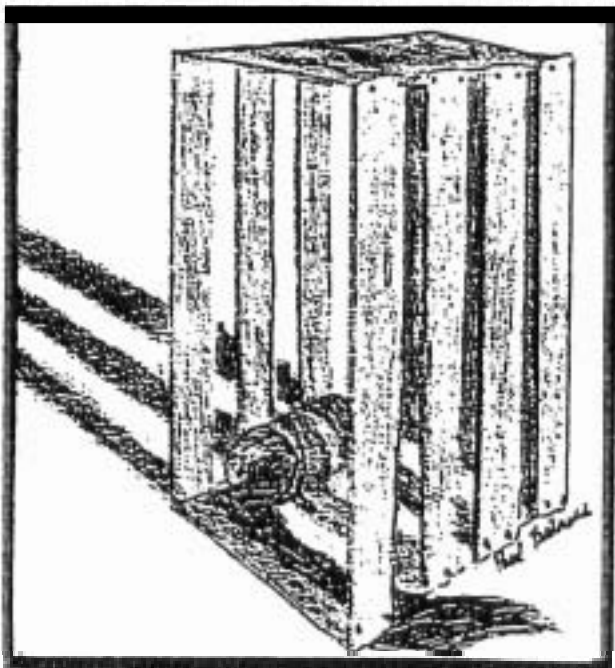
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The Art Curriculum

The mission of the K - 8 Kirkwood Art Department is to guarantee that each student is an explorer by constructing art and problem solving to develop higher level thinking skills which continue personal growth, risk taking and conscientious awareness of other cultures throughout the world and within our own community.

The art program is the study of the elements and principles of art using various methods of creative, expressive and artistic reasoning. The curriculum includes studies in the four art disciplines : **art history, art criticism, art production and aesthetics.**



ELEMENTARY **ART** EDUCATION

The art program strives to assist each child to reach his/her fullest creative potential by providing an environment for artistic expression through the study of the elements and principles of art, using a variety of media.

Learning experiences gained in art classes are specifically mentioned in the Missouri Show Me Standards goals 1.1; 1.5; 1.6; 1.7; 1.9; 1.10; 2.3; 2.4; 3.2; 3.6; 3.8; 4.3 and Kirkwood R-7 Strategic Plan. The Missouri Standards are built around the belief that the success of Missouri's students depends on both a solid foundation of knowledge and skills to the types of problems and decisions they will likely encounter after graduation. The academic standards incorporate and strongly promote the understanding that active, hands-on learning will benefit students of all ages.

ART develops the whole child. . .

Intellectually : through problem solving engaging higher level thinking skills with the use of multi-intelligence abilities while incorporating the study of history and culture

Aesthetically : through a study of cultural and historical standards and a development of heightened perception and a critical sense

Socially : through positive interactions within groups which are directed at attaining a common educational goal

Morally : through the investigation of societal issues and problems through the study of artists who have historically portrayed moral and social issues in their work

Physically : through the development of fine and gross motor skills and eye - hand coordination

Emotionally : through the use of art as an instrument for the expression of emotion which encourages active participation while enhancing positive self esteem

Student Expectations for Communication Arts - Grade 5

KIRKWOOD SCHOOL DISTRICT

Dear Parents,

The purpose of this brochure is to introduce you to the *communication arts* expectations at the 5th grade level. Our goal is to help students become competent, *responsible readers, writers, and thinkers who effectively communicate their thoughts and ideas. Students are empowered to take risks, to think and create, and to develop independence in their learning as they work and share with others.*

Communication Arts Department

LEARNER EXPECTATIONS

The expectations listed below include attitudes, understandings, and behaviors characteristic of language learners at this age and stage of development. All aspects of language arts (reading, writing, listening; speaking) are interrelated. Growth in one facet of language supports growth in the others as well. It is likely that a child will show evidence of just some of the characteristics at any one time or indicate competence in concepts from more than one stage of growth.

GOAL 1: READING LISTENING, VIEWING

Constructs meaning by gathering, analyzing, and applying information and ideas

Res M ing at the Txt Level	<p>COMPREHENDS FICTION, POETRY, PLAYS (Text Features, Structures, and Elements)</p> <ul style="list-style-type: none"> • Identifies and comprehends fiction (including <i>historical fiction</i>) • Identifies and comprehends poetry • Identifies and comprehends plays
	<p>COMPREHENDS NONFICTION TEXT (Text Features, Structures, and Elements)</p> <ul style="list-style-type: none"> • Identifies and comprehends nonfiction (including <i>primary and secondary documents</i>)
	<p>STRATEGY USE: USES VARIOUS STRATEGIES TO CONSTRUCT MEANING</p> <ul style="list-style-type: none"> • Makes connections • Determines importance • Infers • Monitors for meaning
	<p>LITERARY ANALYSIS: RECOGNIZES VARIOUS TYPES OF LITERATURE</p> <ul style="list-style-type: none"> • Identifies the purpose of communications • Critically evaluates text, ideas, and information
	<p>FLUENCY: READS FLUENTLY</p> <ul style="list-style-type: none"> • Reads familiar text fluently with expression • Varies reading technique and rate for purpose and intent
	<p>INFORMATION LITERACY: DEVELOPS AND APPLIES RESEARCH PROCESS SKILLS TO GATHER, ANALYZE, AND EVALUATE INFORMATION</p> <ul style="list-style-type: none"> • Accesses information using a variety of sources • Researches and compares information using more than one source • Creates a bibliography, citing references for books, encyclopedias, and electronic resources

GOAL 1: READING, LISTENING, VIEWING (Continued)

<i>Makes Meaning Using Context</i>	<p>STRATEGY USE: USES VARIOUS STRATEGIES TO PROCESS TEXT</p> <ul style="list-style-type: none">• Uses meaning cues<ul style="list-style-type: none">● Uses picture and graphic cues❖ Uses meaning cues from prior experiences❖ Skips unknown words, reads on for meaning❖ Uses context clues● Self corrects when meaning is lost❖ Rereads to establish meaning • Uses structure cues<ul style="list-style-type: none">❖ Uses sentence structure clues❖ Uses predictable text structure● Applies knowledge of language conventions (capitalization, punctuation, grammar/usage) .
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<i>Makes Meaning at the Word Level</i>	<p>STRATEGY USE: USES A VARIETY OF STRATEGIES TO RECOGNIZE AND DECODE WORDS</p> <ul style="list-style-type: none">• Develops sight vocabulary<ul style="list-style-type: none">❖ Has an increasing bank of sight words, including some technical and subject-specific words❖ Distinguishes homophones, antonyms, and synonyms • Applies word recognition skills<ul style="list-style-type: none">❖ Uses word structure clues (compound words, prefixes, suffixes)● Applies knowledge of letter-sound associations (phonics)
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<i>Reflection Learning Experiences</i>	<p>ATTITUDES: DEMONSTRATES POSITIVE ATTITUDES TOWARD READING</p> <ul style="list-style-type: none">• Reads for a variety of purposes• Develops confidence as a reader
	<p>SELF EVALUATION AND GOAL SETTING</p> <ul style="list-style-type: none">• Evaluates learning<ul style="list-style-type: none">❖ Explains new learning● Determines learning strengths and target areas❖ Assesses process, effort, quality of product❖ Reflects on strategies used; discusses their effectiveness❖ Sets meaningful and realistic goals for future learning

GOAL 2: WRITING, SPEAKING, REPRESENTING
Communicates effectively within and beyond the classroom

Composers Well-Developed Communications	<p>WRITING PROCESS: COMPOSES USING THE WRITING PROCESS</p> <ul style="list-style-type: none"> • Prewriting: generates topics and collects ideas, plans using a strategy, considers audience and purpose • Drafting: nurtures and drafts ideas • Revising: revises draft for clarity • Editing: edits for spelling and mechanics • Publishing: publishes and shares communication
	<p>CONTENT: EFFECTIVELY COMMUNICATES IDEAS AND INFORMATION</p> <ul style="list-style-type: none"> • Expresses ideas clearly • Communicates in a variety of ways for different purposes and audiences • Writes using various forms • Develops personal voice and style • Chooses words according to the demands of audience and purpose
	<p>ORGANIZATION: CLEARLY ORGANIZES WRITING</p> <ul style="list-style-type: none"> • Organizes ideas and information <ul style="list-style-type: none"> ● Stays on topic ❖ Logically sequences information and events ❖ Writes a paragraph with a topic sentence and includes relevant information ❖ Uses complete sentences (compound sentences with conjunctions)

Composers in Standard English Conventions	<p>CONVENTIONS: DEMONSTRATES PROFICIENCY IN SPEAKING AND WRITING STANDARD ENGLISH</p> <ul style="list-style-type: none"> • Uses correct parts of speech in publications or presentations <ul style="list-style-type: none"> ● Identifies subjects and verbs; uses accurate agreement ❖ Identifies nouns and pronouns; uses accurate agreement ❖ Uses correct verb tense ❖ Recognizes and uses adjectives correctly • Uses proper capitalization in publications <ul style="list-style-type: none"> ❖ Properly capitalizes: I, beginning of sentences, proper nouns, titles, first words in the greeting and closing of a letter • Uses correct punctuation in publications <ul style="list-style-type: none"> ❖ Identifies and correctly uses: period, question mark, exclamation mark, comma, apostrophe, quotation marks • Uses correct spelling in publications • Writes legibly • Uses speaking conventions relevant to context • Demonstrates cooperative and collaborative communication skills <ul style="list-style-type: none"> ❖ Listens and responds courteously to views of others ❖ Discusses, negotiates, and applies classroom rules 6 Contributes to group discussions
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Reflects on Learning	<p>ATTITUDES: DEMONSTRATES POSITIVE ATTITUDES TOWARD WRITING</p> <ul style="list-style-type: none"> • Writes for a variety of purposes • Develops confidence as a writer
	<p>SELF EVALUATION AND GOAL SETTING</p> <ul style="list-style-type: none"> • Evaluates learning <ul style="list-style-type: none"> ❖ Talks with others to plan and revise own writing and utilizes feedback 6 Sets meaningful and realistic goals for future learning

Kirkwood Elementary Schools Guidance Program

Grades 4 - 5

Mission Statement

The Kirkwood R-7 Elementary Schools Guidance-Program strives to facilitate students competencies in personal, inter-personal, educational and vocational development. In keeping with Missouri Comprehensive Guidance Program guidelines, services are provided in four major areas:

- **Guidance Curriculum** - developmentally appropriate, sequential activities conducted with all students at each grade level, supplemented by special training activities particular to specific students needs.
- **Individual Planning** - application of acquired competencies to each student's educational and vocational planning.
- **Responsive Services** - personal counseling, crisis intervention, and special support groups and programs particular to student needs.
- **System Support** - organization and facilitation of school - wide programs such as standardized and Advanced Placement testing, student enrollment and registration, coordination of resources for vocational and educational planning and resolution of schedule conflicts.

Guidance Curriculum Learner Outcomes

Learner Outcomes at the elementary schools are consistent with the district-wide Guidance Program Scope and Sequence. The elementary school curriculum encourages a sense of self-worth and pride in intellectual, moral, cultural, emotional and physical achievement and well being. Supplementary programs and responsive services are implemented for students identified as requiring additional competency development in all of the **guidance curriculum** areas.

Personal Development

Students will:

- recognize their attributions and demonstrate confidence in themselves.
- select available resources to address their academic, social and emotional concerns.
- identify factors leading to physically healthy lifestyles.
- identify the negative impact of tobacco, alcohol and other drug use.
- determine effective choices by using decision-making strategies.
- demonstrate self-discipline.

Kirkwood Elementary Schools' Guidance Program Grades 4 - 5

Interpersonal Development

Students will:

- demonstrate responsible choices which **affect** others.
- show respect for property, rules and authority.
- work together to accomplish tasks and goals.
- resolve conflicts peacefully.
- demonstrate appropriate verbal and nonverbal communications.
- solve problems through mediation.

Educational Development

Students will:

- **successfully** adapt to the school environment.
- set and attain developmentally appropriate goals.
- set challenging goals and identify steps needed to reach each goal.
- **organize** materials and time to successfully meet expectations.
- apply study skills to achieve academic goals.

Vocational Development

Students will:

- identify and explore career related opportunities.
- describe how math, science, reading, etc., are important in jobs and daily living.
- identify reasons why people work.
- demonstrate pre-vocational skills; **i.e.**, punctuality, regular attendance, interpersonal skills, **technological** skills.
- make positive contributions to their community and society.

Content and Performance Health Education 4-5

Dear Parents,

Health is that quality or state of being which enables an individual to live most and serve best. Within the context of this definition, health education instruction is a vital and integral part of the total school curriculum and is designed to help each child to understand him/herself as a physical, mental and social being. Health education will provide the opportunity for students to develop attitudes and good health habits. Each person makes decisions about health every day, decisions affecting self, family and community. The K-5 health curriculum in the Kirkwood R-7 School District is designed to include ten strands of health education.

Learner Outcomes

Students will demonstrate, identify, list and distinguish between healthy and unhealthy health practices. The ten health content strands are: Community Health and Safety (With Violence Prevention); Environmental and Consumer Health; Function of the Body; Growth and Development/The Cycle of Family Life; HIV/AIDS and Illness Prevention; Self Worth, Mental and Emotional Health; Nutrition; Physical Fitness; Injury Prevention and Personal Safety; Substance Abuse Prevention. These learner outcomes are a combination of 4-5 curriculum content.

Community Health and Safety (With Violence Prevention): Students will...

- define community and explain how regulations and laws keep us safe
- explain peaceful methods to resolve conflict within the community
- identify violence and list ways to make our community safe
- identify roles of public safety groups and how to access each for help
- explain community risk factors for lung disease

Environmental and Consumer Health: Students will...

- describe the basic functions, safeguards of the ear as well as the treatments for hearing impairments
- be able to list environmental safeguards of noise pollution
- explain the role of advertising in consumer behavior
- describe what you need to know to be a smart consumer for judging quality and health risks in goods bought

Functions of the Body: Students will...

- explain the structure and functions of the mouth, tongue and teeth as well as identifying proper dental care
- be able to identify dental problems and solutions
- describe the structure and function of the brain and name the part of the central nervous system and explain how they work
- list causes and effects of drugs on the brain
- list the causes and effects of head injuries and various disorders of the brain
- identify the major organs and function of the respiratory system and discuss asthma
- share their findings of a smoking simulation experiment

Growth and Development/The Cycle of Family Life: Students will...

- describe how hormones affect the body function and state the emotional changes during puberty
- define "good hygiene"
- able to name things that contribute to a healthy appearance; hair, skin, nails, teeth, posture and dress
- explain the endocrine system including the glands and the role hormones play in body functions
- identify biological differences between boys and girls
- identify the connection between good hygiene, appearance and feeling good
- define maturity

HIV/AIDS and Illness Prevention: Students will...

- define the immune system and discover how HIV destroys its ability to fight germs
- list ways in which HIV is and is not transmitted
- be able to describe the impact of AIDS on their community
- describe how the circulatory system works and identify the components of the blood and the jobs they do
- describe how HIV affects the immune system

Self Worth, Mental and Emotional Health: Students will...

- be able to identify things that can harm their body
- list three reasons why critical thinking is important in helping keep our bodies safe
- define different kinds of abuse including sexual harassment
- list reasons why critical thinking is important in helping keep our bodies safe
- describe human emotions and their effects on the body
- identify responsible methods for handling strong emotions
- identify troubled emotions; grief, depression, anxiety, guilt and fear and the importance of support systems

Nutrition: Students will...

- explain the digestive system and identify factors that help/harm the digestive system
- describe the relationship between calories, energy and nutrients
- explain factors affecting consumer buying habits
- explain basic nutritional guidelines
- explain nutritional needs based on age, sex, activity level, and state of health
- list illnesses associated with food handling

Physical Fitness: Students will...

- define physical fitness
- identify the benefits of exercise for each part of the body
- explain the importance of warming up and cooling down when exercising
- list the functions of the skeletal system
- identify the three types of muscle and their functions
- list environmental conditions for activity
- list four things for a great body: positive attitude, daily exercise, nutritious diet, making good decisions

Injury Prevention: Students will...

- identify assets and sources of pressure, which lead to drug experimenting
- identify various drugs, classify them into categories and explain the effects of each
- identify community resources that can help with drug problems in the family
- define first aid and explain the role it plays in emergency situations
- explain first aid for common minor emergencies
- identify negative behavior and group activities that pose danger and are a safety hazard

Substance Abuse Prevention: Students will...

- list chemicals in tobacco and how they harm the body
- explain the physical/psychological effects of tobacco addiction
- describe the effects of smoking and "secondhand smoke" on a community
- define drug use, drug misuse and drug abuse and the short and long term effects of drugs on the body
- identify ways advertising promotes drug use and explain why drugs won't solve problems

Health-Related Components Of Physical Fitness For Elementary Children

Cardiovascular Endurance

Cardiovascular endurance indicates how efficiently your heart, circulatory system, and respiratory system work together over a long period of time. It is the ability of the circulatory and respiratory systems to adjust to and recover from the effects of moderate to vigorous aerobic activity.

Exercises that increase cardiovascular endurance: Running, Cycling, Brisk Walking, and Swimming.

Fitness Assessment: Pacer Test.

Flexibility

Flexibility is the ability of joints to move through their full range of motion. Several factors can limit joint mobility, including genetic inheritance, the joint's structure, the amount of fatty tissue around the joint, and the body's temperature. Flexibility can be improved with stretching.

Exercises that increase flexibility: Static stretching which involves slow, gradual, and controlled elongation of muscle fibers.

Fitness Assessment: Sit and Reach.

Muscular Strength

Muscular strength is the amount of power a muscle or group of muscles can produce. The benefits of increasing muscular strength include a reduced risk of injury as well as improved posture, physical performance, and body composition.

Exercises that increase muscular strength: Developing strength requires working against a resistance in a progressive manner. Basic guidelines established for resistance training and exercise progression in children (Kraemer and Fleck 1992) are as follows: Primary levels (children 7 years and younger) children should be introduced to basic exercise with little or no weight resistance. Exercises progress from body-weight calisthenics to partner exercises on to lightly-resistant exercise. Intermediate levels (children 8-10 year of age) gradually increase the number of exercises.

Fitness Assessment: Modified Pull-Ups.

Muscular Endurance

Muscular endurance is a muscle's ability to produce power for a long duration. It is the ability to contract a muscle or group of muscles repeatedly without producing fatigue. The longer a muscle is used, the greater its endurance becomes.

Exercises that increase muscular endurance: In children, locomotor activities help develop muscular endurance. Long periods of running, walking, and bicycling are examples of muscular endurance.

Fitness Assessment: Curl-Ups. (for abdominal muscular endurance)

Body Composition

Body composition refers to the quality or makeup of total body mass. Total body mass is composed of lean body mass and fat mass. Lean body mass includes a person's bones, muscles, organs, and water. Fat mass is fat, adipose tissue. The assessment of body composition determines the relative percentages of individual's lean body mass and fat mass. The choices that children make determine their ability to maintain an ideal body mass. Obesity is now the biggest nutritional problem among youths. In our complex society, however, we cannot focus only on obesity. In fact, psychological and social pressures to look thin have driven many youngsters to the extremes of anorexia and bulimia, which pose serious health risks. Helping your child achieve and maintain an ideal body mass requires teaching them the right combination of caloric intake, caloric expenditure, and behavior modification. These factors include frequency of eating, the portion sizes of food, and commitment to physical activity.

FITT Principle

F = Frequency

Frequency is the number of times each week you should exercise at a moderate or vigorous level. According to the U.S. Surgeon General's Report on Physical Activity and Health, physical activity that is moderate to vigorous in nature should be done most days of the week.

I = Intensity

Intensity is the speed or workload used in a given exercise period. Intensity depends on the fitness goals of the exerciser and the type of training method being used. For example in aerobic activities intensity is the speed of the activity. It is measured by checking one's heart rate. *Intensity* with activities for muscular strength and endurance is the workload or resistance of the exercise. With flexibility, intensity is reaching the greatest range of motion through stretch. *Intensity* is directly related to how long one can sustain activity.

T = Time

Time or duration refers to the number of minutes of physical activity. In cardiovascular endurance activities, duration is the amount of time spent doing the activity. Primary age children should limit the duration to shorter bouts of 6-8 minutes, with rest periods lasting at least 1-2 minutes between activity. Intermediate age students can safely prolong physical activity for 10-20 minutes at a time. Muscular strength and endurance activities are based on how many repetitions and sets one performs. During flexibility activities time relates to how long a stretch is held before it is released. The recommended time for children to be physically active is 30 minutes everyday.

T = Type

What type of exercise you select is related to specificity. Specificity of training is the adaptation to exercise that is specific to the system being worked or stressed during exercise. (To increase flexibility you stretch.)

Principal For Exercising

Overload

Overload is the amount of exercise that is needed to improve fitness levels. The body must perform activities that are harder than normal to improve a fitness component.

Progression

Progression is how overload should take place. An increase in the level of exercise can be accomplished when a child runs farther or adds more resistance. This increase must be done in a gradual progression. This enables the body to adapt slowly to the overload; thus it eventually makes the overload normal. Children need to understand that improving their level of fitness is an ongoing process. Tracking their progress is a way of seeing improvement. (Pre and post testing are examples of tracking one's fitness level through assessment.)

Three Parts Of A Workout

Warm-up

The purpose of a warm-up is to increase blood flow to the working muscles, increase body temperature, and decrease the chance of muscle and joint injury. The tempo of the exercise gradually increases, stretching exercises and light calisthenics may be performed.

Conditioning Phase

This is the activity, exercise and/or sport part of the workout. (For example; distance running, playing soccer or roller blading.)

Cool-down

During cool-down a person continues to exercise but at a lower intensity/rate. The light activity will slowly bring the heart rate back to its resting rate. Walking and light stretching may be performed to reduce the chance of muscle cramps or muscle soreness.

Library Media Center

The Library Media Program provides opportunities for students to identify the purpose of the Library Media Center, to locate and select materials, to recognize and use sources of information, and to experience a variety of literature. Students will gather and use information for pleasure, for self-fulfillment, and to satisfy curiosity. Students will develop an appreciation for the research process as a lifelong activity.

LEARNER OUTCOMES

Grades 5

- **GOAL:** Students will identify the purpose of the Library Media Center (LMC).
They will:
 - know the role of the LMC personnel.
 - practice proper care and handling of materials.
 - use circulation routines and procedures.
- **GOAL:** Students will locate and select material.
They will:
 - identify different areas of the collection (i.e., fiction, non-fiction, reference, and biography).
 - identify parts of a book.
 - locate and select materials using the on-line catalog.
 - locate and select information in a variety of other resources (i.e., periodical index, CD-ROM and Internet).
- **GOAL:** Students will recognize and use sources of information.
They will:
 - identify the organization of library resources for informational and recreational purposes (i.e., numerical and alphabetical).
 - recognize outside resources (i.e., public libraries, community and Internet).
 - carry out library research based on classroom assignments.
 - use information from a variety of reference sources (i.e., general and specialized encyclopedias and dictionaries, almanacs and atlases).
- **GOAL:** Students will recognize a variety of literature.
They will:
 - demonstrate the ability to listen and participate in library media presentations.
 - experience and appreciate the skills and talents of a variety of authors and illustrators and recognize award-winning materials.
 - experience a variety of literature (i.e., fairy tales, poetry, historical fiction and fantasy).
 - utilize materials as a source of leisure reading (i.e., books and periodicals).

Kirkwood School District

Student Outcomes for Math - Grade 5

Dear Parents,

The purpose of this brochure is to introduce you to the math outcomes at the fifth grade level. Our goal is to help our students become confident mathematical thinkers who can solve problems and communicate mathematically.

LEARNER OUTCOMES

Although manipulatives still play an important role in the development of concepts, students in these grades are now required to perform more complicated computations and solve many types of problems. Students learn many strategies to help them compute and recall basic facts. Their mental math abilities are more complex, and they are able to think logically. Many math investigations are performed in small, cooperative groups where students learn to communicate their mathematical thinking. By the end of fifth grade, these outcomes are expected.

Number and Operations

Goal 1: Understand number, ways of representing numbers, relationships among numbers and number systems

By the end of the year the student will:

- read, write and sequence numbers to 100,000
- read, write, compare and order unit fractions and decimals to thousandths
- recognize and generate equivalent forms of commonly used fractions, decimals and percents
- use fraction-percent equivalents to solve problems about the percentage of a quantity
- recognize equivalent forms of the same number and generate them by decomposing and composing numbers including expanded notation
- describe numbers according to their characteristics, including whole number factors, prime or composite, odd or even, and square numbers

Goal 2: Understand meanings of operations and how they relate to one another

By the end of the year the student will:

- represent and recognize division using various models, including quotative and partitive models
- describe the effects of addition and subtraction on fractions and decimals
- apply the distributive and associative properties to whole numbers

Goal 3: Compute fluently and make reasonable estimates

By the end of the year the student will:

- describe a mental strategy used to compute a given division problem, where the quotient is a multiple of 10 and the divisor is a 1-digit number
- maintain fluency with basic number relationships of addition, subtraction, multiplication and division
- solve subtraction problems efficiently
- solve multiplication problems efficiently (2-digit by 2-digit or 3-digit)
- apply and describe the strategy used to compute a given division problem up to a 3-digit number divided by a 2-digit number
- apply and describe the strategy used to compute addition and subtraction of fractions and decimals
- estimate and justify quotients of whole numbers
- estimate and justify the sums and differences of decimals and fractions

Algebraic Relationships

Goal 1: Understand patterns, relations and functions

By the end of the year the student will:

- make and describe generalizations about geometric and numeric patterns
- represent and analyze patterns using words, tables and graphs

Goal 2: Represent and analyze mathematical situations and structures using algebraic symbols

By the end of the year the student will:

- represent a mathematical situation as an expression or number sentence using a letter or symbol
- apply the distributive and associative properties to whole numbers
- explain why doubling one factor in a multiplication expression ($a \times b$) and dividing the other by 2 results in an equivalent expression

Goal 3: Use mathematical models to represent and understand quantitative relationships

By the end of the year the student will:

- model problem situations and draw conclusions, using representations such as graphs, tables or number sentences

Goal 4: Analyze change in various contexts

By the end of the year the student will:

- identify, model and describe situations with constant or varying rates of change

Geometric and Spatial Relationships

Goal 1: Analyze characteristics and properties of two- and three-dimensional shapes

By the end of the year the student will:

- analyze 2-dimensional shapes by describing attributes
- analyze 3-dimensional shapes by describing attributes
- use known angle sizes to determine the sizes of other angles (30° , 45° , 60° , 90° , 120° , and 150°)
- identify mathematically similar polygons
- predict and justify the results of subdividing, combining and transforming shapes

Goal 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems

By the end of the year the student will:

- use coordinate systems to specify locations, describe paths and find the distance between points along horizontal and vertical lines

Goal 3: Apply transformations and use symmetry to analyze mathematical situations

By the end of the year the student will:

- predict, draw and describe the results of translating, reflecting and rotating around a center point of a polygon
- identify polygons and designs with rotational symmetry

Goal 4: Use visualizations, spatial reasoning and geometric modeling to solve problems

By the end of the year the student will:

- identify the 3-dimensional shapes when given a net of a prism or cylinder
- draw or use visual models to represent and solve problems

Measurement

Goal 1: Understand measurable attributes of objects and the units, systems and processes of measurement

By the end of the year the student will:

- identify and justify the unit of measure for area (customary and metric)
- identify the equivalent weights and equivalent capacities within a system of measurement
- solve problems involving elapsed time (hours)

Goal 2: Apply appropriate techniques, tools and formulas to determine measurements

By the end of the year the student will:

- determine the perimeter of polygons
- determine the area of polygons
- describe how to solve problems involving the area of polygons and non-polygonal regions imposed on a rectangular grid
- find the volume of rectangular prisms
- convert from one unit to another unit within a system of measurement

Data and Probability

Goal 1: Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them

By the end of the year the student will:

- evaluate data collection methods
- describe methods to collect, organize and represent categorical and numerical data

Goal 2: Select and use appropriate statistical methods to analyze data

By the end of the year the student will:

- describe major features of a set of data represented in a line plot or bar graph and quantify the description by using the median or fractional parts of the data
- compare related data sets

Goal 3: Develop and evaluate inferences and predictions that are based on data

By the end of the year the student will:

- make and justify predictions about a given set of data
- draw conclusions about how two groups compare based on summarizing the data for each group

Goal 4: Understand and apply basic concepts of probability

By the end of the year the student will:

- describe the degree of likelihood of events using such words as certain, equally likely and impossible
- use a decimal, fraction or percent to describe and compare the theoretical probabilities of events with a certain number of equally likely outcomes

MUSIC

MUSIC MISSION STATEMENT

To use the interactive **teaching/learning** methods of singing, movement, listening, playing rhythmic and melodic instruments, creative drama and interdisciplinary activities to develop abilities and skills in the following areas: Appreciation, Dynamics, Form, Harmony, Instruments, Melody, Performing, **Rhythm/Meter**, Singing, Timbre and Tone **Production/Intonation**.

K-5 general music is offered on a regular basis by music specialists in each building.

Students in grades 2-5 will:

- Develop an appreciation of music and musical styles through movement, listening and exploring the lives of a variety of composers.
- Recognize, respond to, perform, identify and create melodies, rhythms, dynamics and timbres.
- Recognize, respond to, perform, identify and create musical forms.
- Recognize, create and perform harmony.
- Demonstrate proper vocal techniques, extend singing range and develop tonal accuracy.
- Identify and label music terms and symbols
- Perform on rhythmic and melodic instruments and the soprano recorder.

Content and Performance Physical Education K-5

Dear Parents,

The physical education program is an integral part of the total development of each student in the Kirkwood R-7 School District. Students are engaged in planned, sequential learning activities which focus on health and fitness related movement concepts. Physical education provides opportunities which encourages social development, self-esteem, creative thinking and problem solving. We feel that our comprehensive curriculum plays a significant role in enabling students to value physical activity and its contributions to a healthy lifestyle, while ensuring an understanding and respect for differences among people.

Learner Outcomes

Students will demonstrate motor skills necessary to perform a variety of physical education activities. Motor skills are divided into fundamental movement skills, rhythms and dance, gymnastics and tumbling. Students will participate in health-related fitness activities throughout the year as well as participating in personal health-related fitness assessments in the fall and the spring. Students will demonstrate skills of personal and social development.

Fundamental Movement Skills include: Students will...

Basic Movement Skills

- recognize and performs a variety of locomotor movements
- perform locomotor movements while exhibiting body control, direction, force and speed
- perform non-locomotor skills
- maintain a stable base of support on 1, 2 and 3 points
- maintain balance while walking forward, backward and sideways
- demonstrate the fundamentals of throwing, catching, striking, jumping, kicking and bouncing

Body and Spatial Awareness

- identified major body parts
- demonstrates spatial awareness and directionality
- moves in patterns using varying levels, speeds, force and directions
- becomes aware of personal space
- understands boundaries

Developmental Games/Activities

- participate in individual and partner activities
- participate in low organized games using locomotor movement
- demonstrate rules of game through participation in activity
- cooperate effectively with partners and small groups
- demonstrate the ability to control fine motor skills and manipulate small objects
- demonstrate the ability to move and manipulate in a low organized activity
- demonstrate motor skills as they apply to lead-up games and sport skills
- demonstrate motor skills as they apply to team sports, dual and individual sports and outdoor recreational/educational activities

Health-Related Components Of Physical Fitness For Elementary Children

Cardiovascular Endurance

Cardiovascular endurance indicates how efficiently your heart, circulatory system, and respiratory system work together over a long period of time. It is the ability of the circulatory and respiratory systems to adjust to and recover from the effects of moderate to vigorous aerobic activity.

Exercises that increase cardiovascular endurance: Running, Cycling, Brisk Walking, and Swimming.

Fitness Assessment: Pacer Test.

Flexibility

Flexibility is the ability of joints to move through their full range of motion. Several factors can limit joint mobility, including genetic inheritance, the joint's structure, the amount of fatty tissue around the joint, and the body's temperature. Flexibility can be improved with stretching.

Exercises that increase flexibility.. Static stretching which involves slow, gradual, and controlled elongation of muscle fibers.

Fitness Assessment: Sit and Reach.

Muscular Strength

Muscular strength is the amount of power a muscle or group of muscles can produce. The benefits of increasing muscular strength include a reduced risk of injury as well as improved posture, physical performance, and body composition.

Exercises that increase muscular strength: Developing strength requires working against a resistance in a progressive manner. Basic guidelines established for resistance training and exercise progression in children (Kraemer and Fleck 1992) are as follows: Primary levels (children 7 years and younger) children should be introduced to basic exercise with little or no weight resistance. Exercises progress from body-weight calisthenics to partner exercises on to lightly-resistant exercise. Intermediate levels (children 8-10 year of age) gradually increase the number of exercises.

Fitness Assessment: Modified Pull-Ups.

Muscular Endurance

Muscular endurance is a muscle's ability to produce power for a long duration. It is the ability to contract a muscle or group of muscles repeatedly without producing fatigue. The longer a muscle is used, the greater its endurance becomes.

Exercises that increase muscular endurance: In children, locomotor activities help develop muscular endurance. Long periods of running, walking, and bicycling are examples of muscular endurance.

Fitness Assessment: Curl-Ups. (for abdominal muscular endurance)

Body Composition

Body composition refers to the quality or makeup of total body mass. Total body mass is composed of lean body mass and fat mass. Lean body mass includes a person's bones, muscles, organs, and water. Fat mass is fat, adipose tissue. The assessment of body composition determines the relative percentages of individual's lean body mass and fat mass. The choices that children make determine their ability to maintain an ideal body mass. Obesity is now the biggest nutritional problem among youths. In our complex society, however, we cannot focus only on obesity. In fact, psychological and social pressures to look thin have driven many youngsters to the extremes of anorexia and bulimia, which pose serious health risks. Helping your child achieve and maintain an ideal body mass requires teaching them the right combination of caloric intake, caloric expenditure, and behavior modification. These factors include frequency of eating, the portion sizes of food, and commitment to physical activity.

Rhythms and Dance Skills include: Students will...

- Dance and rhythms at the elementary level is set up on a five years rotating schedule. The following dance forms/styles are taught.
 - social dance, dance through the decades
 - creative dance
 - folk dance
 - scatter square dance and line dancing
 - rhythms and dance, jump rope/jump bands, tinikling poles, aerobics
- perform rhythmic routines using fundamental movement skills with or without manipulatives
- demonstrate step patterns, positions and formations common to a variety of dances
- participate in creative dance activities demonstrating dramatization, imitation, interpretation and improvisation
- identify the historical and cultural origin of a variety of dances

Gymnastics and Tumbling Skills include: Students will...

- perform basic tumbling activities
- perform basic balance activities
- perform basic apparatus movements on the following equipment depending upon the facilities and/or equipment available for each school, these outcomes will be met
 - balance beam
 - parallel bars
 - vaulting horse
 - climbing rope
 - cargo net

Physical Fitness Skills include: Students will...

- score within the healthy fitness zone of the district health-related personal fitness assessment
 - cardiovascular fitness
 - muscle strength and endurance
 - flexibility
 - body composition
- associate results of fitness testing to individual health status
- identify components of healthful and unhealthful living
- know how to take their pulse rate and be able to distinguish between resting and target heart rate
- perform proper flexibility and strengthening activities
- demonstrate a variety of flexibility, warm-up, cool-down and conditioning activities
- identify and locate major bones and muscles

Personal and Social Development Skills include: Students will...

- demonstrate proper sportsmanship
- follow rules and directions
- participate to their best ability and effort
- demonstrate responsibility by wearing appropriate clothing and tennis shoes

Kirkwood School District
Science Content and Student Investigations - 5th Grade



Dear Parents,

Your child is embarking upon an exciting journey in science. The science content and performances below include the processes and concepts that learners at this particular age and stage of development are becoming aware of, are inquiring about, and are exploring. All objectives meet the Missouri State Grade Level Expectations. Our goal is to provide appropriate science **and** science technology experiences along a developmental continuum so that all elementary students set out on the path to become scientifically literate citizens who will positively affect the world and well-being of society.

Earth Systems

Students will:

1. Recognize that the Earth's surface is covered mainly by water (hydrosphere).
2. Describe, diagram, and trace the path of water as it cycles through the **geosphere**, hydrosphere, atmosphere (**i.e.**, water cycle: (evaporation/ condensation, precipitation, **groundwater/surface** run-off) by:
 - a. Identifying the different forms water takes (snow, rain, sleet, fog, clouds, dew) as it moves through the water cycle.
 - b. Recognizing that clouds and fog are made of tiny droplets of water.
3. Provide examples of how humans and other living things depend on the water cycle.
4. Identify ways humans affect the quantity and quality of fresh water.
5. Relate the water cycle to weather patterns (**e.g.**, temperature, wind direction and speed, and all forms of precipitation by:
 - a. Identifying solar radiation as the source of energy for weather phenomena.
 - b. Describing how the atmosphere (a mixture of gases, water and minute particles) affects weather (air quality, pollution).
6. Identify and use appropriate tools (thermometer, anemometer, wind **vane**, hygrometer,

barometer, rain gauge, satellite images, weather maps) to collect weather data (temperature, wind speed and direction, cloud type and cover).

7. Analyze and summarize patterns represented by the weather data (e.g., temperature and time of day, cloud cover and temperature, wind direction and temperature) collected over a period of time.

Force and Motion

Students will:

1. Describe an object's motion in terms of distance and time.
2. Measure and record in words, tables, and graphs the motion of an object.
3. Identify the forces (gravity, friction,) acting on the motion of objects traveling in a straight line.
4. Recognize that balanced forces do not affect an object's motion. (Newton's First Law)
5. Describe how unbalanced forces acting on an object change its speed (**faster/slower**), direction of motion or both. (Newton's First Law)
6. Explain how increasing or decreasing the amount of force on an object affects the motion of that object. (Newton's **Second Law**)
7. Explain how the mass of an object affects the force required to move it. (Newton's Second Law)
8. Predict how the change in the speed (faster/ slower, remains the same) of an object is affected by the amount of force and the mass of the object). (Newton's Second Law)
9. Recognize friction as a force that slows down or stops moving objects that are touching another object (or surface).
10. Describe how friction affects the amount of force needed to do work over different surfaces or through different media.
11. Compare the forces required to overcome friction when an object moves over different surfaces.
12. Determine the pull of gravity (**weight/force**) on an object using a spring scale in Newtons.
13. Explain how work can be done on an object (force applied and distance moved).
14. Recognize that simple machines change the amount of force and/or direction of force. (levers, inclined planes; pulleys are introduced).
15. Identify the forces acting on a load and use a spring scale to measure the weight (resistance force) of the load.
16. Compare the effect of simple machines on the effort force (measured using a spring scale (in Newtons) needed to lift a load.
17. Identify the simple machines in common tools and household items.

Science Inquiry

Students will:

1. Make qualitative observations using the five senses.
2. Formulate testable questions.
3. Conduct a fair test to answer a question.
4. Recognize the characteristics of a fair and unbiased test.
5. Determine the appropriate tools & technique to collect data.

6. Use a variety of tools & equipment to gather data: hand lenses, magnets, thermometers, metric rulers, balances, graduated cylinders to:
 - a. Measure length to nearest cm; mass to the nearest g; volume to the nearest ml; temperature to the nearest degree C & F.
 - b. Compare like amounts of a measurement.
7. Judge whether measurements & computation of quantities are reasonable.
8. Use quantitative and qualitative **data** to construct reasonable explanations.
9. Analyze whether evidence supports proposed explanations.
10. Evaluate the reasonableness of an explanation.
11. Recognize that explanations have changed over time as a result of new evidence.
12. Use data to describe relationships and to make predictions to be tested.
13. Make predictions supported by scientific knowledge.

Matter and Energy

Students will:

1. Classify types of materials into substances or mixtures of substances by using their characteristic physical properties.
2. **Describe** and compare the mass (to the nearest gram) and volume of objects (beans, **water**, sand) using balances and graduated cylinders.
3. Observe and describe how mixtures are made by combining solids or liquids, or a combination of these.
4. Distinguish between the components in a mixture.
5. Describe ways to separate components of a mixture by their properties.
6. Recognize that the mass of water remains constant when it exists as a solid, liquid, or gas (in a closed container).
7. Recognize **and** describe water as an important solvent in the environment.
8. Recognize how changes in state provide evidence that matter is made of particles too small to be seen.
9. Recognize that the total mass of a material remains constant whether it is together, in parts or in a different state (Law of Conservation of Mass).

KIRKWOOD SCHOOL DISTRICT
STUDENT OUTCOMES FOR SOCIAL STUDIES
Grade Five



Our goal in social studies education is to help students see their own life experiences as part of the larger human adventure, to develop a critical understanding of history, geography, economics, civics, culture ,and to develop the tools of social studies inquiry.

Social Studies Department

Learner Outcomes:

Understand the history and cultures of West Africa as they have contributed to who we are as a people.

Essential Question:

What were the cultures of West Africa like before 1500?

- Explain the importance of gold, salt, agriculture and trans-Saharan trade on the West African empires of Ghana and Songhai.
- Locate West Africa using absolute and relative location descriptions (e.g.in relation to its trading partners along the silk route).
- Identify the important natural features of West Africa. (Sahara desert, Niger river, Mediterranean Sea).
- Demonstrate an understanding of how natural features had an impact on West Africa's way of life during this period. (climate, topography, relationship to water)
- Explain how Islam expanded in West Africa and assess its effect on the culture.

Understand the history and cultures of Europe and how they have contributed to who we are as a people.

Essential Question:

What were the cultures of Europe like before 1500?

- Locate Europe and identify the important natural features, as well as the important political regions of the area.
- Demonstrate an understanding of how natural features had an impact on Europe's way of life during this period.
- Describe feudal lordships and explain how feudal relationships provided a foundation for political order.
- Analyze the impact of manorial life and serfdom on the lives of everyday people.
- Describe the changes in Europe that led to a time of exploration and discovery.
- Arrange on a time line some of the important events of this period in Europe.
- Compare and contrast the institutions that had power during the early Middle Ages with the period of the Renaissance.
- Analyze the impact that using money had on people.
- Analyze the relationship between the Crusades and desire for overseas exploration.

Understand the history of the United States as formed by the three sets of peoples studied in the first three units

Essential Question:

What happened when Africans and Europeans came to this land after 1500?

- Compare the French, English, Spanish and Dutch motives for exploration.
- Trace routes taken by early explorers from the 15th through the 17th century.
- Describe the European view of "ownership" and claim in the "New World".
- Describe the impact of exploration on Europe and the indigenous peoples of North and South America.

- Compare the different kinds of political systems present in this historical period.
- Use a map to describe the relative and absolute location of key places.
- Describe the reasons for enslaving Africans and bringing them to the Americas.
- Contrast the political groups in power in the New World in 1400 and 1620 in a graphic format.
- Describe some different reasons the Spanish, French and English colonies settled in North America.

Understand the history of the colonial United States.

Essential Question:

What was the colonial experience like in the early days of our country?

- Locate the areas of settlement for each of the nations that colonized America.
- Trace the arrival of Africans in the European colonies in the 17th century and the rapid increase of slave importation in the 18th century and organize information into a graphic design.
- Conduct research to identify different reasons that early European immigrants had for coming to America.
- Cite examples of the documents/institutions that aided the settlers in establishing order in the English colonies and analyze them for the values that each represents.
- Assess the role of religion in establishing order in the colonies.
- Compare and contrast the differences among the three groups of English colonies.
- Assess the effect of the physical geography on the New England, Middle and Southern colonies.

Kirkwood School District R-7
Student Outcomes for Technology K-12

Technology is integrated as a tool for learning in all disciplines. Through study of technology, students find, analyze, and produce informative products; develop an awareness of its impact on their individual lives as citizens of a world brought closer together via technology; and understand the ethical issues involved in technology.

- I. Use Technological Equipment and Applications**
 - A. General Skills**
 - 1. The student will take physical care of the equipment.
 - 2. The student will manage files, network resources, and operating systems beginning in grade 2.
 - B. Keyboarding**
 - 1. The student will recognize and locate letters, numbers, and other keys.
 - 2. The student will utilize basic keyboarding skills (touch type) beginning in grade 3.
 - 3. The student will increase speed and accuracy using touch typing beginning in grade 3.
 - C. Word Processing**
 - 1. The student will use graphic organizer software beginning in grade 1.
 - 2. The student will construct appropriate written assignments using word processing.
 - 3. The student will use word processing features to edit, format & rearrange text beginning in grade 2.
 - D. Database**
 - 1. The student will locate information in a prepared database beginning in grade 1.
 - 2. The student will enter and save data and interpret results in a database beginning in grade 4.
 - 3. The student will construct a database beginning in grade 3.
 - E. Spreadsheet**
 - 1. The student will make interpretations from spreadsheets beginning in grade 4.
 - 2. The student will build spreadsheets which include formulas beginning in grade 5.
 - 3. The student will create a graph from a spreadsheet beginning in grade 2.
 - F. Graphics**
 - 1. The student will create graphics with appropriate software.
 - 2. The student will select graphics appropriately and use graphics effectively in technologically produced products beginning in grade 1.
- II. Use Technology Ethically and Make Reasoned Choices**
 - A. Reasoned Choices**
 - 1. The student will make effective, appropriate use of equipment and applications.
 - 2. The student will identify capabilities and limitations of current technology.
 - B. Ethical Use**
 - 1. The student will demonstrate ethical, legal, and safe use of technological resources.
 - 2. The student will recognize and honor copyright and fair use standards beginning in grade 2.
- III. Use the Internet**
 - A. Locating Information** - The student will locate information on the Internet effectively and efficiently beginning in grade 2.
 - B. Evaluation** - The student will determine accuracy and relevance of information found on the Internet beginning in grade 3.
 - C. Communication** - The student will communicate with other information centers in the school, state, nation, and world beginning in grade 3.
- IV. Use Multimedia**
 - A. Presentations** - The student will present information using appropriate technology beginning in grade 1.
 - B. Video**
 - 1. The student will use the still-video or digital camera to produce images beginning in grade 3.
 - 2. The student will use a digital camcorder to produce video footage beginning in grade 3.