

Livonia Public Schools

SIXTH GRADE ESSENTIAL CONTENT

Parent Guide

September 2018

Our curriculum is designed to provide on-going learning experiences which enable students to achieve these outcomes upon graduation:

- Acquire a core of understandings and competencies within the content areas
- Respect self, others, and the environment
- Use critical and creative thinking to make decisions and solve problems
- Know how to learn and work productively
- Work and participate independently and cooperatively
- Acquire and process information
- Communicate effectively



K-6 LIVING AND LEARNING

Acquiring and Using Information

Acquire information from a variety of sources.

Develop and use basic thinking skills.

Use critical and creative thinking to make decisions and solve problems.

Apply metacognitive skills to all thinking processes.

Personal Management/Ethics

Work productively to achieve learning.

Develop a positive attitude toward learning and work.

Demonstrate a commitment to personal and societal ethics.

Social Interaction

Communicate effectively to assist in group tasks.

Identify with the group.

ART

Apply skills and knowledge to perform in the arts.

Apply skills and knowledge to create in the arts.

Describe, analyze, interpret, and evaluate works of art.

Understand, analyze, and describe works of art in their historical, social and cultural contexts.

Recognize, analyze, and describe connections among the arts; between visual art and classroom curriculum; between visual art and everyday life.

Reflect upon and assess the characteristics of student's own processes and the merit of their art work and art work of others.

Enhance their use of technology as a tool to create art.

HEALTH

Demonstrate knowledge of nutrition: choose foods wisely, foods that can reduce heart disease, set a nutritional goal.

Demonstrate understanding of exercise and fitness: fitness skills, types of exercise, lifetime sports for healthy living, prevention of injuries.

Understand the mental, emotional, social, and physical changes that occur during puberty and how individuals develop at different rates.

Understand female and male reproductive systems.

Communicate with family members, analyzing media messages, and clarifying misinformation and promoting healthy behavior.

Develop knowledge of diseases: HIV/AIDS transmission, feelings and needs of afflicted.

Demonstrate an awareness of drugs: effects of alcohol and tobacco, alternatives to drug use.

Describe the harmful impact of harassing behaviors to both the perpetrator and the victim.

LITERACY

Cite evidence to support analysis of text.

Explain how an author develops a point of view.

Describe how a story's plot unfolds

Determine a theme or central idea and how it is conveyed through details. Summarize.

Compare and contrast texts in different genres.

Integrate information gained from more than one source.

Read grade level appropriate texts with purpose and understanding.

Determine the meaning of unknown words.

Produce argument, informational, and narrative writing pieces.

Conduct short research and writing projects using several sources of information.

Gather information from multiple print and digital sources and quote or paraphrase the data, providing a bibliography for sources.

Spell correctly.

Read and write routinely across the curriculum.

Come to discussions prepared, following agreed upon rules for discussion and building on others' talk.

Present information orally, sequencing ideas logically.

Use formal English when appropriate to task.

Type a minimum of 3 pages in a single sitting.

LMC SKILLS

Standard 1: Access information efficiently and effectively to inquire, think critically, and gain knowledge

- Recognize the need for information
- Formulate questions based on information needs
- Identify various potential sources of information
- Develop and use successful strategies for locating information
- Seek information from diverse sources

Standard 2: Evaluate information critically and competently

- Determine accuracy, relevance, and comprehensiveness of information
- Distinguish among fact, point of view, and opinion
- Identify inaccurate and misleading information
- Select information appropriate to the problem or question

Standard 3: Use information accurately, creatively, and ethically to share knowledge and to participate collaboratively and productively as a member of a democratic society

- Organize information for practical application
- Integrate new information into own schema
- Produce and communicate information and ideas in appropriate formats
- Uses problem-solving techniques to devise strategies for improving process or product
- Practice ethical behavior when using print and digital resources (including freedom of speech, intellectual freedom, copyright, and plagiarism)

Standard 4: Appreciate literature and other creative expressions of thoughts and ideas and pursue knowledge related to personal interests and aesthetic growth

- Cultivate a love of reading and become a self-motivated reader
- Develop a knowledge of genres and literary elements
- Derive meaning from informational texts in various formats

Standard 5: Understand and practice Internet safety when using any electronic media for educational, social, or recreational purposes

- Practice strategies that promote personal safety and protect online and offline reputation
- Recognize that networked environments are public places governed by codes of ethical behavior
- Practice positive digital citizenship
- Distinguish website authority, validity, and purpose
- Understand the need for protecting personal privacy when using public access to digital sources
- Protect personal information and electronic devices in an online environment

MATHEMATICS

Understand ratios and use ratio language to describe relationships between two quantities.

Understand unit rates and use rate language to describe a ratio relationship.

Use ratio and rate reasoning to solve real world and mathematical problems.

Make tables of equivalent ratios and plot the pairs of values on a coordinate plane. Use tables to compare ratios.

Solve unit rate problems including unit pricing and constant speed.

Solve problems finding the percent of a quantity and determining the whole, given a part and the percent.

Convert measurements using ratio reasoning.

Divide fractions by fractions and interpret quotients in word problems.

Fluently divide multi-digit numbers using the standard algorithm.

Fluently add, subtract, multiply and divide multi-digit decimals using the standard algorithms.

Find the greatest common factor of two whole numbers less than or equal to 100.

Find the least common multiple of two whole numbers less than or equal to 12.

Use the Distributive Property to factor out the greatest common factor from a sum of two whole numbers. For example, express $36 + 8$ as $4(9 + 2)$.

Understand that positive and negative numbers are used together to describe quantities having opposite directions or values. For example, temperature above/below zero.

Use integers to represent real world contexts and explain the meaning of 0 in each situation.

Recognize opposite signs of numbers indicate locations on opposite sides of 0 on a number line.

Understand that signs of numbers in ordered pairs indicate location of a point in a quadrant of a coordinate plane.

Recognize that when two ordered pairs differ only by signs, the locations of the points are reflections across one or both axes.

Find and position integers and other rational numbers on a number line and on a coordinate plane.

Interpret an inequality by describing the relative position of the two numbers on a number line. For example, interpret $-3 > -7$ as -3 is located to the right of -7 on a horizontal number line.

Write, interpret, and explain statements of order for rational numbers in real world contexts.

Understand the absolute value of a rational number as its distance from 0. Interpret absolute value of rational numbers in real world contexts.

Solve real world and mathematical problems by graphing points in all four quadrants on a coordinate plane.

Use coordinates and absolute value to find the distance between points.

Write and evaluate numerical expressions involving whole-number exponents.

Write, read, and evaluate expressions in which letters stand for numbers.

Identify parts of an expression (sum, term, product, factor, quotient, coefficient).

Solve real world problems using substitution of number for variables in formulas and following the Order of Operations.

Apply the properties of operations to generate and identify equivalent expressions. For example, $3(2 + x)$ is equivalent to $6 + 3x$ and $y + y + y$ is equivalent to $3y$.

Determine which value(s) from a specified set make an equation or inequality true.

Solve real world and mathematical problems by writing and solving equations in the forms $x + p = q$ and $px = q$ for nonnegative rational numbers.

Write inequalities in the form $x > c$ and $x < c$ to represent real world and mathematical problems, and graph the solutions of the inequalities on a number line.

Represent and analyze the relationship between dependent and independent variables in a real world problem using graphs, tables, and equations.

Find the area of right triangles, other triangles, special quadrilaterals, and polygons in real world and mathematical problems.

Find the volume of right rectangular prisms with fractional edge lengths.

Show that the volume is the same as would be found by multiplying the edge lengths of the prism.

Draw polygons in the coordinate plane and find the length of a side.

Represent three-dimensional figures using nets composed of rectangles and triangles, and use the nets to find the surface area of these figures.

Recognize that a statistical question anticipates variability in the data.

Understand that a set of data has a distribution that can be described by its center, spread, and overall shape.

Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

Summarize data by reporting the number of observations and describing the attribute being measured.

Find measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation) of a set of data.

Standards for Mathematical Practice

- Make sense of problems and persevere in solving them.*
 - When presented with a problem, I can make a plan, carry out my plan, and check its success.
- Reason abstractly and quantitatively.*
 - I can use numbers, words, and reasoning habits to help me make sense of problems.
- Construct viable arguments and critique the reason of others.*
 - I can make logical arguments and respond to the mathematical thinking of others.
- Model with Mathematics.*
 - I can recognize math in everyday life and use math I know to solve problems.
- Use appropriate tools strategically.*
 - I can use certain tools to help me explore and deepen my math understanding.
- Attend to precision.*
 - I can be precise when solving problems and clear when communicating my ideas.
- Look for and make use of structure.*
 - I can see and understand how numbers and shapes are organized and put together as parts and wholes.
- Look for and express regularity in repeated reasoning.*
 - I can notice when calculations are repeated. Then I can find more general methods and short cuts.

MUSIC

Vocal Performing Music

Demonstrate proper breathing technique and posture.

Demonstrate Solfege note reading.

Sing in unison for pitch matching.

Sing unison melodies with bass lines.

Sing rounds, partner songs, and descants.

Sing two and three-part songs.

Demonstrate proper performance etiquette.

Demonstrate choral choreography and staging.

Use proper choral speaking, diction and pronunciation.

Demonstrate proper choral techniques: vowel sounds, diction and ensemble singing.

Use expressive speech through drama.

Sing as solo or in small ensembles.

Participate in a program performance.

OR

Instrumental Band

Learn to play a band instrument of the student's choosing.

Demonstrate care of and putting together of instrument.

Develop understanding of proper playing posture for their instrument.

Produce a quality sound on their instrument

Demonstrate Solfege note reading.

Learn 5-note scales in B-flat and E-flat.

Identify letter names of 5 note scales on the music staff.

Demonstrate proper articulation (slur, tongue, legato, staccato.)

Demonstrate reading and performance of whole note, whole rest, dotted-half note, half note, half rest, quarter note, quarter rest and paired eighth notes.

Develop understanding of Duple and Triple meter.

Demonstrate proper performance etiquette.

Play expressively (ex: loud, soft, fast, slow, phrasing, crescendo and diminuendo.)

Participate in a program performance.

OR

Instrumental Orchestra

Learn to play an orchestra instrument of the student's choosing.

Demonstrate care of and putting together of instrument.

Develop understanding of proper playing posture for their instrument.

Produce a quality sound on their instrument.

Demonstrate Solfege note reading.

Learn the D and G major scales.

Identify letter names of D and G major scales on the music staff.

Demonstrate proper articulation (arco, pizzicato, legato, staccato.)

Demonstrate reading and performance of whole note, whole rest, dotted-half note, half note, half rest, quarter note, quarter rest and paired eighth notes.

Develop an understanding of Duple and Triple meter.

Demonstrate proper performance etiquette.

Play expressively (ex. loud, soft, fast, slow, phrasing, crescendo and diminuendo.)

Participate in a program performance.

PHYSICAL EDUCATION

Demonstrate competence in selected object control skills: catching, overhand throw, hand dribble, foot dribble, underhand strike, batting, forehand strike, overhead pass, punting, backhand strike.

Demonstrate growth and development in selected indicators of physical fitness.

Demonstrate knowledge of proper safety procedures.

Develop personal-social skills appropriate for sports-related activities and games: positive self-concept, self-discipline, fair play, respect for property and individuals, leadership, attentiveness, cooperation.

Demonstrate competence in selected sports and games for life-long physical activities: soccer, racquet sports, basketball, volleyball, softball, football.

SCIENCE

Apply understanding of science through reading, writing and technology.

Understand ecosystems.

Understand matter and energy.

Understand the properties of the Earth.

Understand the changes of the Earth.

Science and Engineering Practices

1. Asking Questions and Defining Problems

- I can wonder about the world and write it as a question.

2. Developing and Using Models

- I can create ways to model real world situations.

3. Planning and Carrying Out Investigations

- I can plan and carry out investigations.

4. Analyzing and Interpreting Data

- I can understand and explain what data means.

5. Use Mathematics and Computational Thinking

- I can use math strategies to explain my thinking.

6. Constructing Explanations and Designing Solutions

- I can come up with solutions and explain why.

7. Engaging in Argument from Evidence

- I can use proof to support my findings.

8. Obtaining, Evaluating and Communicating Information

- I can collect, understand, and show my information.

SOCIAL STUDIES

Use historical concepts, patterns, and themes to study the past.

Describe and study the relationships between people, places, and environments.

Analyze the physical and human characteristics of places and regions.

Use geographic inquiry and analysis to answer important questions about relationships between people, cultures, their environment, and relationships within the larger world context.

Use geographic themes, knowledge about processes and concepts to study the Earth.

Explain how forces of conflict and cooperation among people influence the division of the Earth's surface and its resources.

Explain that nations interact with one another through trade, diplomacy, treaties and agreements, humanitarian aid, economic sanctions and incentives, and military force, and threat of force.

Explain and compare how economic systems (traditional, command, and market) answer four basic questions: What should be produced? How will it be produced? How will it be distributed? Who will receive the benefits of production? (e.g., compare United States and Cuba, or Venezuela and Jamaica.)

TECHNOLOGY

Creativity and Innovation: Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.

Critical Thinking, Problem Solving, and Decision Making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems, and operations.

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