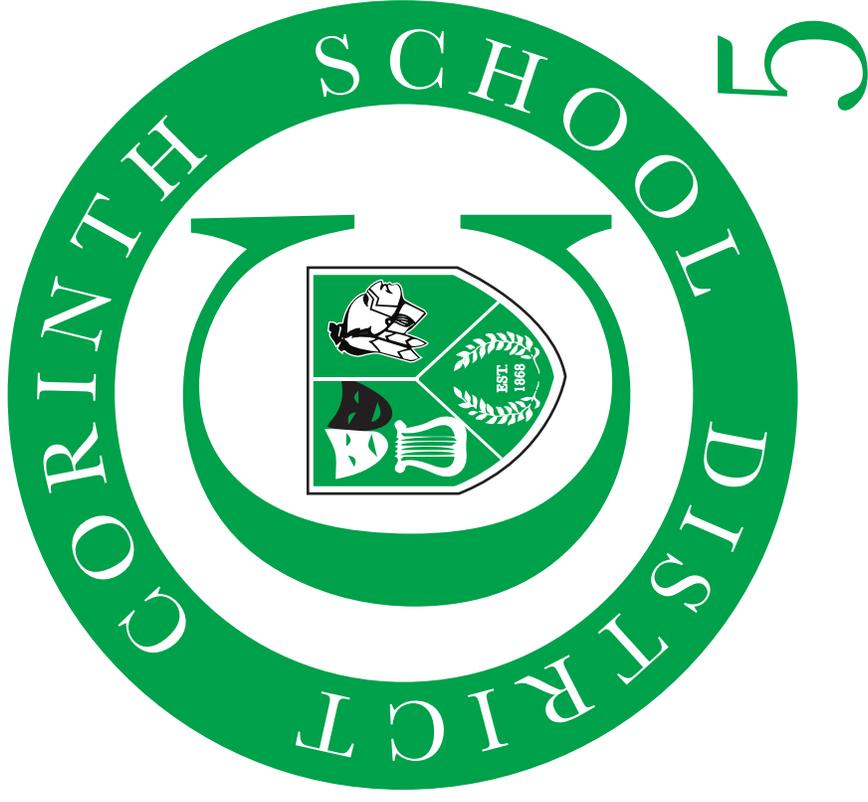


CORINTH SCHOOL DISTRICT
STUDENT EXPECTATIONS

Contact Us:
Corinth School District
1204 North Harper Road
Corinth, MS 38834

662-287-2425
corinth.k12.ms.us



FIFTH GRADE

A FAMILY GUIDE FOR STUDENT SUCCESS

DIPLOMA OPTIONS

College and Career Readiness Diploma

- Complete Traditional Diploma requirements
- Achieve passing scores on Cambridge Subject Area Examinations in Mathematics, Biology, English Language and U.S. History
- Meet college and career readiness measures on the IGCSE Exams, the ACT, or attain Silver Level on ACT WorkKeys Assessment, including Reading for Information, Applied Mathematics, and Locating Information
- Earn three college credits
- Complete Pillar Senior Project

Career Technical Diploma

- Complete Traditional Diploma requirements
- Achieve passing scores on Cambridge Subject Area Examinations in Mathematics, Biology, English Language and U.S. History
- Complete an approved industry recognized certification
- Complete Pillar Senior project or an approved work-based apprenticeship or learning experience

Applied Studies Diploma (Available to students with an IEP)

- Earn twenty-four credits of which twelve must be regular education Carnegie credits
- Pass Functional Literacy Exam
- Complete a required modified course of study
- Complete a work-based learning experience

DIPLOMA OPTIONS

STUDENT EXPECTATIONS FIFTH GRADE

The Corinth School District values different learning experiences for students. Based on this belief, the District will offer the following diploma options:

- **Traditional Diploma**
 - Complete Traditional Diploma requirements
 - Achieve passing scores on Cambridge Subject Area Examinations in Mathematics, Biology, English Language, and U.S. History
 - Complete Pillar Senior Project
- **Early Exit Diploma**
 - Complete Early Exit Diploma requirements
 - Achieve college and career readiness measures on 9th and 10th grade required IGCSE Exams or in all four content areas of the ACT
 - Complete Pillar Senior Project
- **Advanced International Certificate of Education (AICE) Honors Diploma**
 - Complete Traditional Diploma requirements
 - Achieve passing scores on Cambridge Subject Area Examinations in Mathematics, Biology, English Language and U.S. History
 - Complete AICE Diploma requirements as outlined by Cambridge International Exams
 - Complete Pillar Senior Project
- **Corinth Honors Diploma**
 - Complete Traditional Diploma requirements
 - Achieve passing scores on Cambridge Subject Area Examinations in Mathematics, Biology, English Language and U.S. History
 - Achieve a 3.0 or higher on a 4.0 grading scale
 - Earn six college credit hours
 - Complete at least two of the following
 - Earn 4 credits on AICE Exams
 - Complete an approved industry recognized certification
 - Achieve the ACT math, science, reading, and English college and career readiness measures
 - Complete Pillar Senior Project

As a parent, you are your child's first teacher and know your child better than anyone else. You have valuable insight into your child's needs, strengths, abilities, and interests. Knowing you want what is best for your child, we want to partner with you in guiding your child toward success.

The Corinth School District Student Expectation booklet outlines what your child should learn in reading, writing, speaking and listening, mathematics and science. This grade level booklet represents what a student should know by grading period and the end of this grade. Helpful hints are provided for you to encourage your child's academic growth by reinforcing classroom activities at home.

The achievement of these expectations will help your child meet the Corinth Standards. In an effort to share the goal of preparing your child for college and/or a career, the Corinth School District has established diploma options outlined on the last page. We encourage you to have conversations with your child about these diploma options, college plans, and careers so we can work together to help your child be successful.

If you have specific questions regarding Corinth Standards or school programs, please call your child's school. Thank you for trusting our schools to prepare your child for the future.



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READING

During the First Grading Period, your child will study the following Learning Standards:

- Explore proverbs, sayings and figurative expressions
- Develop familiarity with the work of established authors and poets, identifying features which are common to more than one text
- Articulate personal responses to reading, with close reference to the text
- Look for implicit meanings, and make plausible inferences based on more than one point in the text
- Paraphrase explicit meanings based on information at more than one point in the text
- Explore autobiography and biography, and first and third person narration
- Take account of viewpoint in a novel, and distinguish voice of author from that of narrator
- Analyze how paragraphs and chapters are structured and linked
- Compare the language, style and impact of a range of non-fiction writing
- Distinguish between fact and opinion in a range of texts and other media

During the Second Grading Period, your child will study the following Learning Standards:

- Develop familiarity with the work of established authors and poets, identifying features which are common to more than one text
- Read and interpret poems in which meanings are implied or multilayered
- Consider how the author manipulates the reaction of the reader; e.g. how characters and settings are presented
- Explore use of active and passive verbs within a sentence
- Investigate the use of conditionals, e.g. to express possibility
- Articulate personal responses to readings, with close reference to the text
- Analyze the success of writing in evoking particular moods, e.g. suspense
- Comment on writer's use of language, demonstrating awareness of its impact on the reader
- Begin to show awareness of the impact of writers' choices of sentence length and structure
- Look for implicit meanings, and make plausible inferences based on more than one point in the text
- Analyze how paragraphs and chapters are structured and linked

During the Third Grading Period, your child will study the following Learning Standards:

- Explore use of active and passive verbs within a sentence
- Investigate the use of conditionals, e.g. to express possibility
- Key characteristics of a range of non-fiction text types
- Identify features of balanced written arguments
- Develop familiarity with the work of established authors and poets, identifying features that are common to more than one text
- Explore how poets manipulate and play with words and their sounds
- Read and interpret poems in which meanings are implied or multilayered
- Articulate personal responses to reading, with close reference to the text
- Understand aspects of narrative structure, e.g. the handling of time
- Analyze how paragraphs and chapters are structured and linked

SCIENCE HELPFUL HINTS AT HOME

HELPFUL HINTS AT HOME:

- Read books with scientific themes
- Visit science museums, scientific theme parks, zoos, nature centers, etc.
- Practice accuracy in measuring using a ruler, scale, and thermometer
- Compare and contrast weather patterns using a variety of sources
- Investigate erosion processes at and around your home
- Practice recycling, visit a recycling center and check containers for recycling ability and history
- Discuss safety issues related to severe weather
- Participate in science fairs
- Make a poster showing the position of major organs in the body
- Research the function of the major organs in the body and build a organ system model
- Experiment with mixing common items with water; e.g., salt, sugar, sand and tell if they are mixtures or solutions
- Investigate ways to separate mixtures and solutions
- Construct a poster with representation of a food chain
- Have your child to collect pictures of 'producer', 'consumers', 'predators', and 'prey.' From these pictures make a model of the relationship
- Have your child describe how an imbalance in these relationships can effect the environment
- Research what materials are good 'conductors/insulators' of electricity
- Draw series circuits with conventional symbols
- Have your child to write a short essay on how humans can have positive or negative effects on the environment
- Have your child explain the difference in mass and weight
- Research why weight changes and mass does not outside of the Earth's atmosphere
- Investigate why an object with a parachute falls slower than an object with out a parachute. Describe in terms of friction and air resistance

SCIENCE

Third Grading Period, Continued... Consider Evidence and Approach

- Make comparisons
- Evaluate repeated results
- Identify patterns in results and results that do not appear to fit the pattern
- Use results to draw conclusions and to make further predictions
- Suggest and evaluate explanations for predictions using scientific knowledge and understanding and communicate these clearly to others
- Say if and how evidence supports any prediction made

During the Fourth Grading Period, your child will study the following

Learning Standards:

Physics (Forces and Motion)

- Distinguish between mass measured in kilograms (kg) and weight in Newtons, noting that kilograms are used in everyday life
- Recognize and use units of force, mass and weight and identify the direction in which forces act
- Know and understand the notion of energy in movement
- Recognize friction (including air resistance) as a force which can affect the speed at which objects move and which sometimes stop things moving

Scientific Inquiry Standards

Ideas and Evidence

- Consider how scientists have combined evidence from observations and measurement with creative thinking to suggest new ideas and explanations for phenomena
- Collect evidence and data to test ideas including predictions
- **Plan Investigative Work**
- Discuss how to turn ideas into a form that can be tested
- Make predictions using scientific knowledge and understanding
- Choose what evidence to collect to investigate a question, ensuring that the evidence is sufficient
- Identify factors that are relevant to a particular situation
- Choose which equipment to use

Obtain and Present Evidence

- Make a variety of relevant observations and measurements using simple apparatus correctly
- Decide when observations and measurements need to be checked by repeating to give more reliable data
- Use tables, bar charts and line graphs to present results

Consider Evidence and Approach

- Make comparisons
- Evaluate repeated results
- Identify patterns in results and results that do not appear to fit the pattern
- Use results to draw conclusions and to make further predictions
- Suggest and evaluate explanations for predictions using scientific knowledge and understanding and communicate these clearly to others
- Say if and how evidence supports any prediction made

READING

During the Fourth Grading Period, your child will study the following Learning Standards:

- Explore use of active and passive verbs within a sentence
- Investigate the use of conditionals, *e.g. to express possibility*
- Recognize key characteristics of a range of non-fiction text types
- Compare the language, style and impact of a range of non-fiction writing
- Develop familiarity with the work of established authors and poets, identifying features which are common to more than one text
- Explore how poets manipulate and play with words and their sounds
- Read and interpret poems in which meanings are implied or multilayered

READING HELPFUL HINTS AT HOME

HELPFUL HINTS AT HOME:

- Ask your child to read aloud a story or a short passage from the newspaper, magazine, letters, etc. Notice if your child corrects himself/herself when mispronouncing a word
- Ask your child to read billboards aloud while riding with you in the car
- Using sentences from a passage from magazines articles, scramble the sentences and ask your child to put the sentences in logical order
- Post a magnetic post-it board on the refrigerator: Whenever your child comes to a word that he/she does not recognize, your child should write the word on the board and the parent should help with the pronunciation and use the word in a sentence
- Ask your child to make labels for household items: Mom's scissors, Dad's magazines, Mary's toys, etc.
- Play the "sounds like" game: bare/bear, one/won, dear/deer, etc.
- Point out charts, graphs, and pictures in newspaper and magazine articles. Ask your child to explain their meaning
- Read aloud a short story and ask your child to retell the story. Look for references to main characters, plot, setting, and theme
- Ask your child to find the meaning to unknown words using a dictionary
- Look at a map together when talking about family history, pointing out countries and/or states where ancestors lived
- Using an atlas, let your child help map out a family trip
- Allow your child to scan the newspaper and magazines for coupons, choosing and clipping coupons that are appropriate for the family's needs/wants
- Introduce several types of genres to your child (poetry, fables, etc.). Ask your child to write a sample of one genre you choose
- Cut out several short articles from the newspaper: Ask your child to determine the author's purpose
- Have your child read a current article about a natural disaster and describe measures taken to overcome the problems
- Cover the back of your child's door with butcher paper or brown paper. Whenever your child hears a new simile or metaphor, have him/her write the phrase on the paper and illustrate it. (Simile – "He was as tall as a tree." Metaphor – "Her eyes are shining stars.")
- Ask your child to create a song, skit, or poem to perform for senior neighbors/friends
- Give your child index cards that have statements that are facts or opinions printed on them. Ask your child to identify the statement as a fact or opinion. [The first President of the United States was George Washington. (fact) Bill Clinton was an excellent President. (opinion)]
- Ask your child to read a selection from the editorial section of the newspaper. Determine with your child the author's point of view
- Allow your child to use the telephone book to find telephone numbers of businesses or friends for you
- Allow your child to skim through a magazine and select one article to read. After the selection, discuss the reason your child selected the article. Use this opportunity to illustrate the importance of bold-face type, headings, pictures, etc.
- Allow your child to read a menu and order his/her own meal when dining out
- Ask your child to assist you when ordering items on-line
- Ask your child to read you the instructions for assembling or using a new household appliance
- Use a recipe to cook with your child. Have your child follow the directions in the recipe as you read to assemble the dish
- After using a recipe to create a dish, discuss what would have happened if you had followed the directions out of sequence
- Ask your child to complete a series of chores and check off each one as it is completed
- Listen to the radio news together and talk about the meaning

SCIENCE

During the Second Grading Period, your child will study the following Learning Standards:

Biology (Livings Things in Their Environment)

- Know how food chains can be used to represent feeding relationships in a habitat and present these in test and diagrams
- Know that food chains begin with a plant (the producer), which uses energy from the Sun
- Know and understand the terms 'producer', 'consumer', 'predator', and 'prey'
- Children have explored and can construct food chains in a particular habitat

Scientific Inquiry Standards

Obtain and Present Evidence

- Make a variety of relevant observations and measurements using simple apparatus correctly
- Consider Evidence and Approach
- Identify patterns in results and results that do not appear to fit the pattern
- Suggest and evaluate explanations for predictions using scientific knowledge and understanding and communicate these clearly to others

During the Third Grading Period, your child will study the following Learning Standards:

Physics (Material Properties)

- Investigate how some materials are better conductors of electricity than others
- Investigate how some metals are good conductors of electricity and that most other materials are not
- Know why metals are used for cables and wires and why plastics are used to cover wires and as covers for plugs and switches
- Predict and test the effects of making changes to circuits including length or thickness of wire and the number and type of components
- Represent series circuits with drawings and conventional symbols

Biology (Living Things in Their Environment)

- Explore how humans have positive and negative effects on the environment e.g. loss of species, protection of habitats
- Explore a number of ways of caring for the environment, e.g. recycling, reducing waste, reducing energy consumption, not littering, encouraging others to care for the environment

Scientific Inquiry Standards

Ideas and Evidence

- Collect evidence and data to test ideas including predictions

Plan Investigative Work

- Discuss how to turn ideas into a form that can be tested
- Make predictions using scientific knowledge and understanding
- Choose what evidence to collect to investigate a question, ensuring that the evidence is sufficient
- Identify factors that are relevant to a particular situation
- Choose which equipment to use

Obtain and Present Evidence

- Make a variety of relevant observations and measurements using simple apparatus correctly
- Decide when observations and measurements need to be checked by repeating to give more reliable data
- Use tables, bar charts and line graphs to present results

SCIENCE

During the First Grading Period, your child will study the following

Learning Standards:

- **Biology (Humans and Animals)**
- Can identify the position of major organs in the body
- Can describe the main functions of the major organs of the body
- Can explain how the functions of the major organs are essential
- Can use scientific names for some major organs of body systems (heart, lungs, kidneys, stomach/intestines, brain)
- **Chemistry (Material Changes)**
- Can distinguish between reversible and irreversible changes
- Explore how solids can be mixed and how it is often possible to then separate them again
- Observe, describe, record and begin to explain changes that occur when some solids are added to water
- Explore how when solids do not dissolve or react with the water they can be separated by filtering, which is similar to sieving
- Explore how some solids dissolve in water to form solutions and although the solid cannot be seen, the substance is still present

Scientific Inquiry Standards

Ideas and Evidence

- Collect evidence and data to test ideas including predictions

Plan Investigative Work

- Discuss how to turn ideas into a form that can be tested
- Make predictions using scientific knowledge and understanding
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- Say if and how evidence supports any prediction made

WRITING

During the First Grading Period, your child will study the following

Learning Standards:

- Use different genres as models for writing
- Plan plot, characters and structure effectively in writing an extended story
- Use paragraphs, sequencing and linking them appropriately to support overall development of the text
- Manage the development of an idea throughout a piece of writing, *e.g. link the end to the beginning*
- Use a range of devices to support cohesion within paragraphs
- Develop some imaginative detail through careful use of vocabulary and style
- Develop skills of writing biography and autobiography in role
- Use the styles and conventions of journalism to write reports on events

During the Second Grading Period, your child will study the following

Learning Standards:

- Plan plot, characters and structure effectively in writing an extended story
- Use paragraphs, sequencing and linking them appropriately to support overall development of the text
- Manage the development of an idea throughout a piece of writing, *e.g. link the end to the beginning*
- Use different genres as models for writing
- Use a range of devices to support cohesion within paragraphs
- Develop some imaginative detail through careful use of vocabulary and style

During the Third Grading Period, your child will study the following

Learning Standards:

- Argue a case in writing, developing points logically and convincingly
- Write a balanced report of a controversial issue
- Summarize a passage, chapter or text in a given number of words
- Plan plot, characters and structure effectively in writing an extended story
- Use different genres as models for writing
- Use paragraphs, sequencing and linking them appropriately to support overall development of the text
- Use a range of devices to support cohesion within paragraphs

During the Fourth Grading Period, your child will study the following

Learning Standards:

- Manage the development of an idea throughout a piece of writing, *e.g. link the end to the beginning*
- Use different genres as models for writing
- Develop some imaginative detail through careful use of vocabulary and style
- Use paragraphs, sequencing and linking them appropriately to support overall development of the text

WRITING HELPFUL HINTS AT HOME

HELPFUL HINTS AT HOME:

- Provide your child with different words, and have him/her use a thesaurus to write words that are similar in meaning and opposite in meaning for these words
- Provide your child with who/what words (dog, baseball, etc.) and action words (bark, hit, etc.), and have your child write sentences with these words
- Provide your child with misspelled words, and have him/her use a dictionary to spell the words correctly
- Have your child read a short story and write a description for each character in the story
- Read most of a story to your child, and have your child write how he/she thinks the story will end
- Have your child read a story and summarize what he/she reads
- Have your child interview someone that he/she admires and write a report on that person
- Have your child interview different people (banker, doctor, ball player, etc.) and write a report comparing the different occupations
- Have your child use different materials to write a report on his/her chosen career
- Have your child read a fairy tale such as Cinderella and list details from the story that indicate why it is fictional
- Have your child read a story, select a character from the story, and write how his/her life compares with the character
- Have your child read a story and write about how the story makes him/her feel
- Have your child write an advertisement for a homeless pet
- Have child interview an elderly person (grandparents, etc.), write about that person's life, and compare it with his/her own life
- Have your child write a poem describing his/her favorite time of year
- Have your child write a list of safety rules for riding a bike, baking his/her favorite cake, etc.
- Have your child write directions for getting to the library from his/her house
- Have your child make a "to do" list for the week (his/her homework, chores, practices, etc.), and have your child write a schedule to get the "to do" list completed
- Have your child listen to an article about a current event and summarize what he/she has read
- Have your child listen to a song and summarize the message of the song
- Have your child listen to part of short story and write how he/she feels it will end

MATHEMATICS HELPFUL HINTS AT HOME

HELPFUL HINTS AT HOME:

- As you take trips, enlist the help of your child in reading a road map and mentally calculating the distance between two places; determine the shortest route; figure distance traveled per hour and miles per gallon
- Give your child a clothing budget. Ask your child to use estimation to determine the cost of a new seasonal wardrobe and then make decisions as to what he/she can and cannot buy staying within his/her budget
- Enlist your child's help when shopping in finding the best buy based on price, quantity, size, quality, etc. Point out unit pricing labels on store shelves
- Listen for patterns in music and point out relationships between rhythms and fractions
- Challenge your child to see how many different ways he/she can cut brownies or sandwiches into halves, into fourths, into eighths, into sixteenths, etc.
- Involve your child in paying bills; calculate the cost per kilowatt hour of electricity or the average cost per day to heat your home
- Work with your child on a science project requiring collecting, organizing, and displaying data in graph form and using these data to make predictions (Keep a record of the weather such as highs, lows, precipitation, etc.)
- Look for real-life examples of probability such as the probability of rain today
- Ask your child to help with recipes in the kitchen. Have them predict the amounts needed if the servings changed (e.g. if two cups of sugar are needed to serve 4, how many would be needed to serve 16?)
- Play card and board games using math concepts as a centerpiece (e.g. Yahtzee, Connect 4, Sudoku, Monopoly, Rummy, Pyramid Solitaire, etc.)
- Ask your child to "teach" you what he/she learned in their lesson that day
- Ask your child to help with household projects such as carpentry or plumbing that requires geometric or algebraic understanding
- Count floor tiles to find the area of a room
- Look for real world examples of proportion (maps to real world, model cars, etc.)

MATHEMATICS

Fourth Grading Period, Continued...

- Identify relationships between numbers and make generalized statements using words, then symbols and letters, *e.g. the second number is twice the first number plus 5 ($n, 2n + 5$); all the numbers are multiples of 3 minus 1 ($3n - 1$); the sum of angles in a triangle is 180°*
- Solve simple word problems involving ratio and direct proportion
- Solve simple word problems involving percentages, *e.g. find discounted prices*
- **Problem Solving – Techniques and Skills**
- Choose appropriate and efficient mental or written strategies to carry out a calculation, involving addition, subtraction, multiplication or division
- Understand everyday systems of measurement in length, weight, capacity, temperature and time and use these to perform simple calculations
- Check addition with a different order when adding a long list of numbers; check when subtracting by using the inverse
- Recognize 2-Dimensional and 3-Dimensional shapes and their relationships, *e.g. a cuboid has a rectangular cross-section*
- Estimate and approximate when calculating

SPEAKING & LISTENING

During the First Grading Period, your child will study the following Learning Standards:

No Standards for Grading Period

During the Second Grading Period, your child will study the following Learning Standards:

- Convey ideas about characters in drama in different roles and scenarios through deliberate choice of speech, gesture and movement

During the Third Grading Period, your child will study the following Learning Standards:

- Use spoken language well to persuade, instruct or make a case, *e.g. in a debate*

During the Fourth Grading Period, your child will study the following Learning Standards:

- Vary vocabulary, expression and tone of voice to engage the listener and suit the audience, purpose and context
- Reflect on variations in speech, and appropriate use of standard English
- Structure talk to aid a listener's understanding and engagement
- Speak confidently in formal and informal contexts

MATHEMATICS

MATHEMATICS

During the First Grading Period, your child will study the following Learning Standards:

- **Number and the Number System**
- Know what each digit represents in whole numbers up to a million
- Know what each digit represents in 1 and 2 place decimal numbers
- Multiply and divide any whole number from 1 to 10,000 by 10, 100, or 1000 and explain the effect
- Find factors of 2 digit numbers
- Find some common multiples, *e.g. for 4 and 5*
- Round whole numbers to the nearest 10, 100, or 1000. Make and justify estimates and approximations of large numbers
- Use the $<$, $>$ and $=$ signs correctly
- Estimate where 4 digit numbers lie on an empty 0 – 10,000 number line
- Recognize and extend number sequences
- Recognize odd and even numbers and multiples of 5, 10, 25, 50, and 100 up to 1000
- Make general statements about sums, differences, and multiples of odd and even numbers
- Recognize prime numbers up to 20 and find all prime numbers less than 100

Number and Calculation

- Recall addition and subtraction facts for numbers to 20
- Divide 2 digit numbers by single digit numbers, including leaving a remainder
- Add 2 and 3 digit numbers with the same or different numbers of digits
- Multiply pairs of multiples of 10 or multiples of 10 and 100
- Multiply near multiples of 10 by multiplying by the multiples of 10 and adjusting
- Multiply by halving one number and doubling the other (35 x 16 with 70 x 8)
- Multiply 2, 3, or 4 digit numbers by a single digit number

Measurement – Length, Mass, and Capacity

- Select and use standard units of measure
- Read and write to 2 decimal places
- Convert between two units of measurement, using decimals to three places
- Interpret readings on different scales, on a range of measuring instruments
- Draw and measure lines to the nearest centimeter and millimeter

Measurement - Time

- Recognize and understand the units for measuring time: seconds, minutes, hours, days, weeks, months, years, decades, and centuries; convert one unit of time into another
- Tell the time using digital and analog clocks using the 24 hour clock system
- Compare times on digital/ analog clocks
- Read and use timetables using the 24 hour clock system
- Calculate time intervals using digital and analog times
- Use a calendar to calculate time intervals in days, weeks or months
- Calculate time intervals in days, months or years

Measurement – Area, Perimeter, and Volume

- Measure and calculate the perimeter and area of rectilinear shapes
- Estimate the area of an irregular shape by counting squares
- Calculate perimeter and area of simple compound shapes that can be split into rectangles

Problem Solving – Techniques and Skills

- Choose appropriate and efficient mental or written strategies to carry out a calculation, involving addition, subtraction, multiplication or division
- Understand everyday systems of measurement in length, weight, capacity, temperature, and time and use these to perform simple calculations

Fourth Grading Period, Continued...

- Divide three-digit numbers by two-digit numbers (no remainder) including sums of money
- Know and apply the arithmetic laws as they apply to multiplication (without necessarily using the terms commutative, associative or distributive)
- Give an answer to division as a mixed number, and a decimal (with divisors of 2, 4, 5, 10, or 100)
- Relate finding fractions to division and use them as operators to find fractions including several tenths and hundredths of quantities

Geometry – Shapes and Geometric Reasoning

- Classify different polygons and understand whether a 2-Dimensional shape is a polygon or not
- Visualize and describe the properties of 3-Dimensional shapes
- Identify and describe properties of quadrilaterals and classify using parallel sides, equal sides, and equal angles
- Recognize and make 2-Dimensional representations of 3-Dimensional shapes including nets
- Estimate, recognize and draw acute and obtuse angles and use a protractor to measure to the nearest degree
- Check that the sum of the angles of a triangle is 180 degrees

Geometry – Position and Movement

- Read and plot coordinates in all four quadrants
- Predict where a polygon will be after one reflection, where the sides of the shape are not parallel or perpendicular to the mirror line after one translation or after a rotation through 90 degrees about one of its vertices

Measurement – Position and Movement

- Select and use standard units of measure
- Read and write to 2 decimal places
- Convert between two units of measurement, using decimals to three places
- Interpret readings on different scales, on a range of measuring instruments
- Draw and measure lines to the nearest centimeter and millimeter
- Know imperial units still in common use, *e.g. the mile, and approximate metric equivalents*
- Read and use timetables using the 24 hour clock system

Measurement - Time

- Calculate time intervals using digital and analog times
- Use a calendar to calculate time intervals in day, weeks or months
- Appreciate how the time is different in different time zones around the world

Measurement – Area, Perimeter, and Volume

- Measure and calculate the perimeter and area of rectilinear shapes
- Estimate the area of an irregular shape by counting squares
- Calculate perimeter and area of simple compound shapes that can be split into rectangles

Problems Solving – Understanding and Strategies in Solving Problems

- Make sense of and solve word problems, single and multi-step (all four operations), and represent them
- Deduce new information from existing information and realize the effect that one piece of information has on another
- Explain why they chose a particular method to perform a calculation and show work
- Use logical reasoning to explore and solve number problems and mathematical puzzles
- Use ordered lists or tables to help solve number problems systematically
- Make, test and refine hypotheses, explain and justify methods, reasoning, strategies, results or conclusions orally

MATHEMATICS

MATHEMATICS

During the Fourth Grading Period, your child will study the following Learning Standards:

Handling Data – Organizing, Categorizing, and Representing Data

- Explore how statistics are used in everyday life
- Handling Data - Probability**
- Use the language associated with probability to discuss events, to assess likelihood and risk, including those with equally likely outcomes
- Number and the Number System**
- Count forward and backward in fractions and decimals, *eg* $1/3$ s, 0.1 s, and repeated steps of whole numbers (and through zero)
- Multiply and divide decimals by 10 or 100 (answers up to two decimal places for division)
- Round a number with two decimal places to the nearest tenth or to the nearest whole number
- Order and compare positive numbers to one million, and negative integers to an appropriate level

- Order numbers with up to two decimal places (including different numbers of places)
- Recognize and use decimals with up to three places in the context of measurement
- Recognize the historical origins of our number system and begin to understand how it developed
- Compare fractions with the same denominator and related denominators, *eg* $3/4$ with $7/8$
- Recognize equivalence between fractions, *eg* between $1/100$ s, $1/10$ s and $1/2$ s
- Recognize and use the equivalence between decimal and fraction forms
- Order mixed numbers and place between whole numbers on a number line
- Change an improper fraction to a mixed number, *eg* $17/8$ to $2\ 1/8$
- Reduce fractions to their simplest form, where this is $1/4$, $1/2$, or $3/4$ or a number of fifths or tenths
- Begin to convert an improper fraction to a decimal fraction using division
- Understand percentage as parts in every 100 and express $1/2$, $1/4$, $1/3$ $1/10$, $1/100$ as percentages
- Find simple percentages of shapes and whole numbers
- Solve simple problems involving ratio and direct proportion

Number and Calculation

- Recall addition and subtraction facts for numbers to 20 and pairs of one-place decimals with a total of 1, *eg* $0.4 + 0.6$
- Derive quickly pairs of one-place decimals totaling 10, *eg* 7.8 and 2.2 , and two-place decimals totaling 1, *eg* $0.78 + 0.22$
- Know and apply tests of divisibility by 2, 4, 5, 10, 25, and 100
- Use place value and number facts to add or subtract two-digit whole numbers and to add or subtract three-digit multiples of 10 and pairs of decimals
- Add/subtract a near multiple of 10, 100 or 1000, or a near whole unit of money, and adjust
- Double quickly any two-digit number, *eg* 78 ; 7.8 , 0.78 and derive the corresponding halves
- Add/subtract near multiples of one when adding numbers with one decimal place
- Use place value and multiplication facts to multiply/divide mentally
- Add or subtract numbers with the same and different numbers of decimal places, including amounts of money
- Find the difference between a positive and negative integer, and between two negative integers in a context such as temperature or on a number line
- Use number facts to generate new multiplication facts
- Divide three-digit numbers by single-digit numbers, including those leaving a remainder

First Grading Period, Continued...

- Check addition with a different order when adding a long list of numbers; check when subtracting by using the inverse
- Estimate and approximate when calculating
- Problems Solving – Understanding and Strategies for Solving Problems**
- Explain why student chose a particular method to perform a calculation and show work
- Deduce new information from existing information and realize the effect that one piece of information has on another
- Use logical reasoning to explore and solve number problems and mathematical puzzles
- Use ordered lists or tables to help solve number problems systematically
- Make sense of and solve word problems and represent them
- Make, test, and refine hypotheses. Explain, and justify methods, reasoning, strategies, results or conclusions orally

During the Second Grading Period, your child will study the following Learning Standards:

Geometry – Shapes and Geometric Reasoning

- Classify different polygons and understand whether a 2-Dimensional shape is a polygon or not
- Visualize and describe the properties of 3-Dimensional shapes
- Identify and describe properties of quadrilaterals and classify using parallel sides, equal sides, and equal angles
- Recognize and make 2-Dimensional representations of 3-Dimensional shapes including nets
- Check that the sum of the angles of a triangle is 180 degrees

Geometry – Position and Movement

- Read and plot coordinates in all four quadrants
- Predict where a polygon will be after one reflection, where the sides of the shape are not parallel or perpendicular to the mirror line after one translation or after a rotation through 90 degrees about one of its vertices

Number and the Number System

- Know what each digit represents in whole numbers up to a million
- Know what each digit represents in 1 and 2 place decimal numbers
- Multiply and divide any whole number from 1 to 10000 by 10, 100, or 1,000 and explain the effect
- Find factors of 2 digit numbers
- Round a number with two decimal places to the nearest tenth or to the nearest whole number
- Find some common multiples, *eg* for 4 and 5
- Round whole numbers to the nearest 10, 100, or 1,000. Make and justify estimates and approximations of large numbers
- Estimate where 4 digit numbers lie on an empty 0 – 10,000 number line
- Recognize and extend number sequences
- Recognize odd and even numbers and multiples of 5, 10, 25, 50 and 100, up to 1000
- Make general statements about sums, differences, and multiples of odd and even numbers
- Recognize prime numbers up to 20 and find all prime numbers less than 100
- Multiply and divide decimals by 10 or 100 (answers up to two decimal places for division)
- Order and compare positive numbers to one million, and negative integers to an appropriate level

MATHEMATICS

MATHEMATICS

Second Grading Period, Continued...

- Order numbers with up to two decimal places (including different numbers of places)
- Recognize and use decimals with up to three places in the context of measurement
- Recognize the historical origins of our number system and begin to understand how it developed

Number and Calculation

- Recall addition and subtraction facts for numbers to 20 and pairs of one place decimals with a total of 1, *e.g.* $0.4 + 0$
- Derive quickly pairs of one place decimals totaling 10, *e.g.* 7.8 and 2.2, and two-place decimals totaling 1, *e.g.* $0.78 + 0.22$
- Know and apply tests of divisibility by 2, 4, 5, 10, 25, and 100
- Use place value and number facts to add or subtract two-digit whole numbers and to add or subtract three-digit multiples of 10 and pairs of decimals, *e.g.* $560 + 270$; $2.6 + 2.7$; $0.78 + 0.23$
- Add/subtract, multiply numbers near 10, 100, or 1000, or a near whole unit of money, and adjust, *e.g.* $3127 + 4998$; $5678 - 1996$
- Double quickly any two-digit number, *e.g.* 78; 7.8; 0.78 and derive the corresponding halves
- Multiply pairs of multiples of 10, or multiples of 10 and 100
- Divide 2 digit numbers by single digit numbers, including leaving a remainder
- Add 2 and 3 digit numbers with the same or different numbers of digits
- Add or subtract numbers with the same and different numbers of decimal places, including amounts of money
- Find the difference between a positive and negative integer, and between two negative integers in a context such as temperature or on a number line
- Multiply pairs of multiples of 10 or multiples of 10 and 100
- Multiply multiples of numbers near 10 by multiplying by the multiples of 10 and adjusting
- Multiply by halving one number and doubling the other (35 x 16 with 70 x 8)
- Multiply 2, 3 or 4 digit numbers by a single digit number
- Use number facts to generate new multiplication facts, *e.g.* the $17 \times$ table from $10 \times + 7 \times$ tables
- Divide three-digit numbers by single-digit numbers, including those leaving a remainder and divide three-digit numbers by two-digit numbers (no remainder) including sums of money

Problem Solving – Techniques and Skills

- Choose appropriate and efficient mental or written strategies to carry out a calculation, involving addition, subtraction, multiplication or division
 - Check addition with a different order when adding a long list of numbers; check when subtracting by using the inverse
 - Recognize 2-Dimensional and 3-Dimensional shapes and their relationships, *e.g.* *caboid has a rectangular cross-section*
 - Estimate and approximate when calculating
- ## Problems Solving – Understanding and Strategies in Solving Problems
- Explain why student chose a particular method to perform a calculation and show work
 - Deduce new information from existing information and realize the effect that one piece of information has on another
 - Use logical reasoning to explore and solve number problems and mathematical puzzles. Deduce new information from existing information to solve problems
 - Use ordered lists or tables to help solve number problems systematically
 - Make, test and refine hypotheses. Explain and justify methods, reasoning, strategies, results or

conclusions orally

- Make sense of and solve word problems, single and multi-step (all four operations), and represent them, *e.g.* with diagrams or on a number line; use brackets to show the series of calculations necessary

During the Third Grading Period, your child will study the following Learning Standards:

- **Measurement – Length, Mass, and Capacity**
 - Select and use standard units of measure
 - Read and write to 2 decimal places
 - Convert between two units of measurement, using decimals to three places
 - Interpret readings on different scales, on a range of measuring instruments
 - Draw and measure lines to the nearest centimeter and millimeter
 - Know imperial units still in common use, *e.g.* the mile, and approximate metric equivalents
- ## Measurement - Time
- Recognize and understand the units for measuring time: seconds, minutes, hours, days, weeks, months, years, decades and centuries; convert one unit of time into another
 - Tell the time using digital and analog clocks using the 24 hour clock system
 - Compare times on digital/ analog clocks
 - Read and use timetables using the 24 hour clock system
 - Calculate time intervals using digital and analog times
 - Use a calendar to calculate time intervals in day, weeks or months
 - Calculate time intervals in days, months or years
 - Appreciate how the time is different in different time zones around the world
- ## Measurement – Area, Perimeter, and Volume
- Measure and calculate the perimeter and area of rectilinear shapes
 - Calculate perimeter and area of simple compound shapes that can be split into rectangles
 - Estimate the area of an irregular shape by counting squares
- ## Problem Solving – Techniques and Skills
- Understand everyday systems of measurement in length, weight, capacity, temperature and time and use these to perform simple calculations
 - Estimate and approximate when calculating, *e.g.* use rounding and check working
- ## Problems Solving – Understanding and Strategies in Solving Problems
- Explain why they chose a particular method to perform a calculation and show their working
 - Deduce new information from existing information and realise the effect that one piece of information has on another
 - Use ordered lists or tables to help solve problems systematically
- ## Handling Data – Organizing, Categorizing, and Representing Data
- Solve a problem by representing, extracting and interpreting data in tables, graphs, charts, and diagrams, *e.g.* line graphs, for distance and time, a price 'ready-reckoner' for currency conversion, frequency tables and bar charts with grouped discrete data
 - Find the mode and range of a set of data from relevant situations, *e.g.* scientific experiments
 - Begin to find the median and mean of a set of data