



LEVEL TWO

Discovery Charter School - Teachers, Students, Families, and Community in a Learning Partnership

Family Guide To Total Learning Objectives: Creating Knowledge Through Questions, Projects, Experiences and Problem Solving

WELCOME TO LITERACY

*“Open up the treasure chest
To see what you will find
Answers for your questions
And a fortune for your mind”*

METHODOLOGY

All instruction at the Discovery Charter School focuses on total learning. We feature a blended teaching method that engages students in acquiring knowledge and skills through an extended inquiry and experience based process. Learning is structured around authentic questions, carefully designed projects and targeted learning experiences. Teachers, students and families are fully involved in planning and implementing learning experiences and projects. Our instruction blends the processes of thinking, developing skills and gaining knowledge allowing students to “understand”, “know” and “do”. We support students in learning and practicing skills in problem solving, communication, and self-management. We integrate curriculum areas, thematic instruction, and community issues. Assessment of performance is on content and skills using criteria similar to those in the work world, thus encouraging accountability, goal setting, and improved performance. We focus on meeting the needs of learners with varying skill levels and learning styles and we target individual interests to engage and motivate bored or indifferent students. We highlight the Learning Team Concept focusing on the synergistic power of teachers, students and families working together. We develop Individualized Learning Plans closely aligned with curriculum guidelines, benchmarks, and standards.

LOVE OF LEARNING

- _____ understands that each human brain is a powerful learning tool
- _____ believes in their ability to learn and expresses excitement about learning
- _____ applies the process of asking questions and sharing previous gained information
- _____ responds to questions posed by family, teachers, peers and other adults
- _____ identifies areas of interest and curiosity to assist in selecting learning projects.
- _____ organizes, records, and shares information using objects, pictures, demonstrations, technology and verbal responses
- _____ uses questions to guide the information collection
- _____ values personal knowledge skills in light of rapid growth of information base due to technology
- _____ understands that their brain is constantly growing and collecting information from all activities and experiences
- _____ understands that there are many ways to learn and that different people learn in different ways

_____ identifies personal learning styles, strengths, and preferences

SOLVING PROBLEMS

_____ applies previous experience and knowledge to problem solving experiences

_____ explains and verifies results of problem solving experiences through project presentations

_____ continues to apply a variety of strategies when the first strategy proves to be unproductive

_____ identifies a variety of resources and experiences to support the learning and problem solving experiences

_____ develops confidence in the use of technology to assist in solving problems and supporting project presentations

_____ reviews problem solutions, and uses questions to identify new problems and experiences

_____ takes pride in problem solutions

ENGLISH - LANGUAGE ARTS - READING

Level Two students use their beginning skills to develop expertise in communicating through reading, writing, listening, and speaking. The ability to apply these skills increases as students participate in written and oral language projects and experiences.

WORD ANALYSIS

- _____ use structural elements (e.g. syllables, compound words, prefixes, base words, and suffixes) to decode words in text
- _____ identify and use knowledge of homographs, homophones, abbreviations, synonyms, antonyms, context clues, and structural analysis to understand text
- _____ read high frequency words to build fluency and construct meaning
- _____ read text aloud with fluency (e.g. accuracy, expression, and appropriate rate)
- _____ develop vocabulary by reading, writing, listening, and speaking
- _____ apply basic knowledge of alphabetic order

READING STRATEGIES

- _____ use before-reading strategies (e.g. preview text, access prior knowledge, set purpose for reading, make predictions, and determine text type) to aid comprehension
- _____ use during-reading strategies (e.g. self-correct, make, confirm, and revise predictions, identify main idea and details, and make inferences)
- _____ use after-reading strategies (e.g. recall details, restate main idea, organize information, and summarize text)

LITERARY TEXT

- _____ identify setting and sequence of events
- _____ describe physical and personality traits of a character
- _____ identify how one event may cause another event
- _____ compare and contrast information
- _____ make inferences and draw conclusions based on evidence
- _____ describe and make inferences about characters
- _____ read and discuss text from different cultures and time periods
- _____ make connections to self, other texts, and/or the world when reading
- _____ use information to answer specific questions
- _____ explain the main idea
- _____ make predications based on evidence
- _____ identify examples of imagery, sensory words, and similes
- _____ identify and read a variety of literature

EXPOSITORY TEXT

- _____ identify and gain information from text features (e.g. titles, headings, graphs, charts, illustrations, diagrams, tables of contents, bold-faced and italicized words)
- _____ gain information from reference materials
- _____ explain the topic
- _____ identify the main idea
- _____ identify cause and effect
- _____ describe the sequence or chronological order of text
- _____ make predictions
- _____ make inferences and draw conclusions
- _____ identify fact and opinion
- _____ read and discuss text from different cultures and time periods
- _____ use information to answer specific questions
- _____ read and follow directions to complete tasks
- _____ read a variety of non-fiction texts

EFFECTIVE WRITING

- _____ plan written work
- _____ choose and narrow topic
- _____ organize ideas
- _____ write complete sentences with supporting details
- _____ revise writing (e.g. organization, ideas, word choice, sentence structure and relevant details)
- _____ edit for correct use of end punctuation and commas (e.g. greeting and closing of a letter, dates, and words in a series)
- _____ edit for capitalization (e.g. first and last names, initials, beginning of sentences, months , and days of the week)
- _____ edit for spelling (e.g. high frequency words, content words, contractions, possessives, and pattern words)
- _____ edit for correct word usage (e.g. nouns, pronouns, verbs, adjectives, verb tenses, and subject/verb agreement)
- _____ edit for use of complete sentences
- _____ prepare a legible final draft to display or share

TYPES OF WRITING

- _____ write informational sentences using a topic sentence
- _____ write paragraphs that include a topic sentence, supporting details, and a concluding sentence
- _____ write sentences and paragraphs about experiences and/or events
- _____ write an opinion statement
- _____ write responses to a variety of texts
- _____ write friendly letters
- _____ write sentences that answer a research question; record information from at least two sources

_____ write simple stories and other compositions

_____ write daily

LISTENING

_____ listen for a variety of purposes (e.g. gaining information, being entertained, and understanding directions)

_____ listen and respond to oral communication

_____ expand vocabulary through listening

_____ listen to different types of texts

SPEAKING

_____ give directions to complete tasks

_____ use precise language to describe feelings, experiences, observations, and ideas

_____ communicate information by maintaining a clear focus

_____ communicate information in a logical sequence

_____ ask relevant questions to clarify and gather information

_____ speak clearly with appropriate expression and pace

_____ participate in various forms of oral communication (e.g. conversations, group discussions, and presentations)

MATHEMATICS

Level Two students expand their understanding of number sense and place value. They continue to learn and use the basic addition facts through sums of eighteen and the corresponding subtraction facts. Students also develop problem solving strategies, estimate, and collect and read data using tables, pictographs, and bar graphs.

NUMBERS, NUMBER SENSE, AND COMPUTATION

- _____ identify, use, and model place value positions of 1's, 10's, and 100's
- _____ identify the value of a given digit in the 1's, 10's, and 100's place
- _____ identify equal parts of a whole
- _____ identify and model the unit fractions $\frac{1}{2}$ and $\frac{1}{4}$ as equal parts of a whole or sets of objects
- _____ read, write, compare, and order numbers from 0-999
- _____ identify ordinal positions first to twentieth
- _____ read and write number words to 20
- _____ create, compare, and describe sets of objects and numbers from 0-999 as greater than, less than, or equal to ($>$, $<$, $=$)
- _____ use number patterns to skip count
- _____ add and subtract money
- _____ identify and model basic addition facts (sums to 18) and the corresponding subtraction facts
- _____ immediately recall basic addition facts (sums to 18) and the corresponding subtraction facts
- _____ add and subtract one-and two-digit numbers without regrouping
- _____ generate and solve one-step addition and subtraction problems based on practical situations
- _____ model addition and subtraction in a variety of ways using pictorial representations and symbols to illustrate subtraction of sets, comparison of sets, and missing addends
- _____ reinforce the use of mathematical vocabulary and symbols to describe addition, subtraction, and equality
- _____ use estimation and mental computation to solve problems

PATTERNS, FUNCTIONS, AND ALGEBRA

- _____ recognize, describe, extend, and create repeating and increasing patterns using symbols, objects, and manipulatives
- _____ use patterns and their extensions to solve problems
- _____ model, explain, and identify missing operations and missing numbers in open number sentences involving number facts in addition and subtraction
- _____ complete number sentences with the appropriate words and symbols ($+$, $-$, $=$)
- _____ represent mathematical situations using numbers, symbols, and words

MEASUREMENT

- _____ compare, order, and describe objects by various measurable attributes for length, weight, and temperature
- _____ compare objects to standard whole units to find objects that are greater than, less than, and/or equal to a given unit
- _____ determine the value of any given set of coins
- _____ use decimals to show money amounts
- _____ recognize equivalent combinations of coins
- _____ read time to the nearest half-hour and quarter hour
- _____ recognize that there are 12 months in 1 year, 7 days in 1 week, and 24 hours in 1 day
- _____ use elapsed time in one hour increments, beginning on the hour, to determine start, end, and elapsed time

SPATIAL RELATIONSHIPS, GEOMETRY, AND LOGIC

- _____ describe, sketch, and compare two-dimensional shapes regardless of orientation
- _____ identify congruent and similar shapes (circles, triangles, and rectangles including squares)
- _____ identify figures with symmetry as they appear in the environment
- _____ identify, name, sort, and describe two- and three-dimensional geometric figures and objects including circle/sphere and square/cube
- _____ sort and classify objects by two or more attributes

DATA ANALYSIS

- _____ collect, record, and classify data in response to questions posed by teacher and/or students
- _____ use tables, pictographs, and bar graphs to represent data
- _____ use informal concepts of probability (certain and impossible) to make predictions about future events

PROBLEM SOLVING

- _____ apply previous experience and knowledge to new problem solving situations
- _____ formulate their own problems
- _____ explain and verify results with respect to the original problem
- _____ try more than one strategy when the first strategy proves to be unproductive
- _____ use technology, including calculators, to develop mathematical concepts

MATHEMATICAL COMMUNICATION

- _____ use everyday language, both orally and in writing, to communicate strategies and solutions to mathematical problems
- _____ use inquiry techniques to solve mathematical problems (discussion, questioning, research, data gathering)
- _____ use mathematical notation to communicate and explain problems
- _____ use physical materials, models, pictures, or writing to represent and communicate mathematical ideas

MATHEMATICAL REASONING

- _____ justify and explain the solutions to problems using physical models
- _____ discuss the steps used to solve a mathematical problem
- _____ draw logical conclusions about mathematical problems

MATHEMATICAL CONNECTIONS

- _____ link new concepts to prior knowledge
- _____ identify, explain, and use mathematics in everyday life
- _____ apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science
- _____ view mathematics as an integrated whole in order to identify mathematics used in everyday life

SCIENCE

Level Two students keep and share records of their observations, investigations, interactions, and projects with solids and liquids, living things and their habitats, and weather. They work collaboratively to develop questions, make predictions based on evidence, and gather evidence. They use tools for safely collecting data and sharing information. They create charts and labeled illustrations for sharing data. Nature and History of Science objectives are embedded throughout the year in the contexts of life, earth, and physical science. They create projects and experiences that take them into the community and world around them to identify problems and seek answers to those problems.

NATURE AND HISTORY OF SCIENCE

- _____ record observations and explanations using words, numbers, charts and labeled pictures
- _____ keep a record, in a science notebook, of observations and measurements taken over time (weather, moon cycle, life cycle)
- _____ use equipment (pan balance, thermometer, funnel, ruler) to gather information
- _____ make and justify predictions based on observations
- _____ ask questions about the natural world
- _____ cooperate and contribute ideas within a group
- _____ relate classroom science experiences to the work of scientists
- _____ recognize that science involves people of all ages and backgrounds

PHYSICAL SCIENCE

- _____ describe solids and liquids according to similarities and differences
- _____ investigate and describe how water changes back and forth from solid to liquid; differentiate between hot and cold
- _____ investigate and describe how properties of materials can be changed by heating, freezing, mixing, cutting, and bending
- _____ describe and sort materials in terms of their observable properties (shape, weight, color, texture)
- _____ investigate the properties of sound and describe how sound is produced by vibrating objects

EARTH SCIENCE

- _____ investigate and describe how the sun warms the land, air, and water
- _____ observe that water on Earth can be a liquid (rain) or a solid (snow and ice)
- _____ investigate, observe, describe and record how weather changes from day to day and seasonally throughout the year
- _____ observe, record, and describe how weather impacts their lives each day

LIFE SCIENCE

- _____ explain that many different kinds of living things exist on Earth
- _____ investigate and describe how animals have offspring that are the same kind of animal
- _____ investigate, observe, and describe how animals grow and change through their life cycles

- _____ investigate, observe, and describe how animals use their senses
- _____ investigate and describe how animals use plants and other animals for food
- _____ explain that habitats include food, water, shelter, and space
- _____ explain how particular features of plants and animals help them live in different kinds of places

SOCIAL STUDIES

Level Two students begin building a global perspective by experiencing their community at work. They observe and share information about their lives in relation to their state, the United States and other peoples and countries of the world. Students determine what makes the United States unique and explore different patriotic traditions around the world. Students create projects and experiences with the use of money and the purposes of financial institutions.

HISTORY

- _____ compare the local community with others around the nation
- _____ use artifacts to understand how people lived their daily lives
- _____ tell why important events, people, and/or customs are marked by holidays
- _____ recognize similarities and differences of earlier generations in areas such as work, dress, manners, stories, games, and festivals
- _____ compare communities around the world with the local community
- _____ explain why important events, people, and/or customs from around the world are marked by holidays
- _____ examine artifacts from around the world for important clues as to how people lived their daily lives
- _____ identify ways in which people cooperate to achieve a common goal
- _____ explore the importance of both local and national landmarks, and explain how they create a sense of community among citizens
- _____ identify public and private spaces within the community
- _____ compare and/or contrast their daily lives with children around the world
- _____ explain why people and events are honored in commemorative holidays
- _____ demonstrate respect for each other and people in the community
- _____ define technology and identify uses of technology in their daily lives
- _____ listen to and discuss news events in the community

GEOGRAPHY

- _____ identify titles and symbols on maps
- _____ recognize spatial patterns, i.e., political units, physical features, on a map and globe
- _____ construct a map key from given symbols and choose a map title
- _____ give and follow simple oral directions to move from one location to another
- _____ use a simple letter/number grid system to find a specific location
- _____ identify geographic information within media sources, i.e., maps, books, photographs
- _____ define region and provide examples of regions
- _____ describe neighborhoods and communities as places where people live, work, and play
- _____ identify traditions and customs that families practice
- _____ identify patterns of change in the community
- _____ provide examples of geographical uses of machines, tools, and technologies, i.e., surveying tools, map navigation programs

- _____ show that different locations have different addresses
- _____ locate his/her city and state on a map
- _____ construct a visual model, i.e., graph, table, and/or choropleth map of population distribution
- _____ categorize different ways to move people, goods, and ideas, i.e., air, water, land, phone, and/or computer
- _____ define and compare rural and urban communities
- _____ list types of social groups to which people belong
- _____ tell how the physical environment affects community activity, i.e., recreation, water usage
- _____ provide examples of tools that assist in finding geographic locations
- _____ identify how people shape the physical environment
- _____ define and provide examples of natural hazards
- _____ identify natural resources and where they can be found in the neighborhood

ECONOMICS

- _____ give examples of what is given up when choices are made
- _____ identify consumers and where they make purchases
- _____ identify producers in your neighborhood and community
- _____ discuss why people work
- _____ discuss the concept that money is limited
- _____ identify reasons for saving money
- _____ identify businesses in the community
- _____ describe ways to share classroom resources
- _____ demonstrate an understanding of trade by providing an example

CIVICS

- _____ identify and follow classroom and school rules that guide behavior and resolve conflicts
- _____ identify an individual's rights within the classroom and in school
- _____ participate in class decision-making, i.e., individual responsibilities in the classroom
- _____ recognize the Pledge of Allegiance
- _____ describe traditional patriotic activities, holidays, or symbols from around the world
- _____ name the current President of the United States
- _____ identify sources of information
- _____ name their school and community