



# Grade One Learning Guide

*Danbury Public Schools*

2008



## - THE ELEMENTARY SCHOOL LEARNING TREE-

### CONTENT SPECIFIC ELEMENTARY EXIT STANDARDS

The **Content Specific Elementary Exit Standards** described on the next page detail what students in the Danbury Elementary Schools should know and be able to do at the conclusion of fifth grade. They represent the *leaves* of **THE LEARNING TREE**. It is important to note that students learn at different rates and bring different experiences, strengths, and needs to the learning experience. Therefore some students will exceed the stated learning expectations, others will need additional resources to reach the desired level of performance, and some will require further modifications to achieve the desired outcomes.

### K-12 UNIVERSAL/LIFE-LONG LEARNING SKILLS

The **Universal/Life-Long Learning Skills** indicated below are those skills, which are necessary for an individual to be a life-long learner. These skills are germane to all content areas and grade levels. They represent the *trunk* of **THE LEARNING TREE** and need to be incorporated into each instructional unit, as appropriate. The Universal/Life-Long Learning Skills combined with the Content Specific Exit Standards represent the curriculum. Both components are required to address the learning needs of our students.

✧ **READ, WRITE AND LISTEN FOR MANY PURPOSES**

✧ **DEVELOP AND APPLY THINKING STRATEGIES**

- ◆ **Ask questions for clarification and understanding**
- ◆ **Activate relevant, prior knowledge (schema)**
- ◆ **Determine the most important ideas or themes from information sources**
- ◆ **Create sensory images from information sources**
- ◆ **Analyze data and recognize patterns**
- ◆ **Draw inferences from information sources**
- ◆ **Synthesize information**
- ◆ **Monitor meaning and comprehension**
- ◆ **Engage in self-reflection to evaluate process and product**

✧ **DEVELOP AND APPLY SKILLS IN TECHNOLOGY TO THE LEARNING PROCESS**

✧ **COMMUNICATE WITH CLARITY AND PRECISION**



## CONTENT SPECIFIC ELEMENTARY EXIT STANDARDS

**By the end of Grade 5 students will be able to:**

### LANGUAGE ARTS

- Develop proficiency in the areas of reading, writing, speaking, listening, and viewing.
- Construct meaning and respond thoughtfully to a variety of material from print, non-print, and electronic materials.
- Use a variety of strategies to create and develop meaning when reading, writing, listening, speaking, and viewing.
- Express questions, thoughts, interpretations, and opinions related to material from print, non-print, and electronic source content and purpose in both oral and written form.
- Develop stories, essays, and poems using the writing process.
- Read to learn and for pleasure.

### MATHEMATICS

- Use mathematical skills, techniques, and applications to solve problems.
- Demonstrate an operational sense of the fact families in addition and subtraction through 18, and multiplication and division through the 9's table.
- Demonstrate number sense by counting, comparing, estimating, and using place-value concepts in whole numbers, fractions, and decimals.
- Demonstrate spatial sense by describing, modeling, drawing, and classifying shapes, and relate geometric ideas to numbers and measurement ideas.
- Use mathematical reasoning to solve problems by applying number sense or using spatial relationships.
- Use common units of measure such as length, capacity, weight, area, volume, time, temperature, and angles.
- Select and use computational techniques appropriate to specific whole number problems, and determine whether the results are reasonable.
- Collect organize, and describe data.
- Explain verbally and in writing all taught mathematical concepts.

### SCIENCE

- Make accurate observations involving biology, physical, and chemical characteristics.
- Describe how organisms share basic characteristics, which include life cycles that begin with birth and end with death.
- Describe why water is important for life.
- Diagram the earth and describe how it obtains its energy from the Sun.
- Demonstrate that matter has physical and chemical properties that can be changed.
- Use scientific instruments correctly in gathering data.
- Demonstrate how science, math, and technology are interrelated.



### **SOCIAL STUDIES**

- Demonstrate an understanding of social studies units of study by acquiring, organizing, interpreting, and applying data from various forms of print and non-print material.
- Use historical statements and concepts to assist in decision-making about public issues.
- Recognize and apply distance, direction, scale, map symbols, latitude, and longitude through the use of maps and globes.
- Recognize and understand events, personalities, geographic and economic factors that have shaped the history and culture of Danbury, Connecticut and other regions of the United States.
- Demonstrate an understanding of the historical and economic events that created and transformed the new American Nation to 1800.

### **INFORMATION LITERACY AND TECHNOLOGY**

- State a simple research question, present research findings in a variety of formats, and compile a list of works cited for any presentation.
- Locate and use materials with appropriate guidance from a variety of sources including print, non-print, electronic, and the Internet to answer a research question.
- Select books and articles from the major literacy genres: novels, short stories, poetry, and non-fiction for independent reading.
- Select, access and use software appropriate to a given task and create a multi-media presentation to communicate ideas.
- Follow Acceptable Use Policy Guidelines for safe and appropriate use of the Internet.

### **MUSIC**

- Develop introductory listening, singing, movement, and instrumental skills.
- Read, understand, and apply basic musical notation and vocabulary.
- Discuss appropriate historical, cultural, and interdisciplinary elements of music.

### **VISUAL ARTS**

- Demonstrate a basic knowledge of elements and principles of art and their creative application to two and three-dimensional design.
- Explore a variety of appropriate art methods, media, and subjects.
- Understand appropriate historical, cultural, and interdisciplinary elements of art.

### **PHYSICAL EDUCATION**

- Demonstrate age appropriate form in the fundamental movement skills: locomotor, nonlocomotor, and selected manipulative skills.
- Recognize the personal physiological effects that accompany moderate to vigorous physical activity.
- Recognize the contributions that individual differences add to group activities.

### **HEALTH EDUCATION**

- Explain how childhood injuries and illnesses can be prevented.
- Demonstrate the ability to locate school and community health helpers.
- Compare behaviors that are safe to behaviors that are risky or harmful.
- Explain how media influences thoughts, feelings, and health behaviors.
- Demonstrate the ability to apply a decision-making process to health issues and problems.



## **GRADE ONE BODY OF KNOWLEDGE**

- **Content Exit Standards**
- **Building Blocks**  
to Achieve the Application of  
Universal/Life-Long Learning Skills  
and Content Exit Standards



## GRADE ONE CONTENT EXIT STANDARDS

**The content standards detailed below are to serve as the foundation for each grade one student's classroom-based instructional experience:**

### **Reading**

- Demonstrate an awareness of concepts of print
- Demonstrate phonological awareness (sounds in speech)
- Develop graphophonic skills (sounds/symbols)
- Develop a sight vocabulary (high frequency words, color words, number words, environmental signs and symbols)
- Begin to read aloud with expression and fluency, demonstrating the development of rhythm, cadence, and an understanding of end punctuation marks
- Develop and apply universal thinking and comprehension strategies
- Employ the language arts for lifelong learning, work, and enjoyment

### **Writing**

- Identify and use appropriate modes of writing for a variety of purposes and audiences with or without teacher assistance
- Begin to recognize and use the stages of a writing process [prewriting, drafting, revising, editing, and publishing] with or without teacher assistance
- Develop and apply legible penmanship

### **Speaking, Listening, Viewing, and Enacting**

- Demonstrate grade appropriate use of standard English and delivery strategies
- Respond critically to oral communication, films, videos, presentations, graphics, and written work
- Perform in a manner that guides the listener's understanding of key ideas, using appropriate phrasing, pitch, and modulation

### **Mathematics**

- Use numbers and objects to count, measure, estimate, compare, classify, sort, and order
- Develop strategies to add and subtract simple whole numbers
- Discover, analyze, extend, and create patterns
- Recognize money, time, linear measurement, and geometric shapes

### **Social Studies**

- Construct a meaning for the term "geography"
- Use maps, atlases, charts, and graphs to interpret information
- Demonstrate an understanding of the relationship between basic economic concept
- Recognize cause and effect relationships
- Recognize that people have different points of view
- Recognize that rights and responsibilities will define an individual's role as a citizen

### **Science**

- Recognize differences and similarities between living and nonliving things
- Recognize that living things are found almost everywhere and that there are different kinds in different places
- Use knowledge of plants
- Use knowledge of animals
- Explore the properties of matter and describe characteristics (i.e., shape, color, taste, weight, and odor)

**Information Literacy and Technology**

- Operate and use computers and other technologies as tools for productivity, problem-solving and learning across the content area
- Define information needs and identify effective courses of action to conduct research and solve problems
- Understand and demonstrate a command of information skills and strategies to locate and effectively use print, non-print and/or digital resources to solve problems and conduct research
- Apply evaluative criteria to the selection, interpretation, analysis, reorganization and synthesis of information from a variety of sources and formats
- Use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions to others
- Evaluate the effectiveness and efficiency of their own choices and uses of information and technology for problem-solving and communication
- Demonstrate the responsible, legal and ethical use of information resources, computers and other technologies
- Develop life-long reading habits to foster personal enrichment and continuous learning
- Develop a deeper awareness of media literacy as a life skill that is integral to modern citizenship and informed decision-making



**BUILDING BLOCKS TO ACHIEVE:**

**THE APPLICATION OF THE UNIVERSAL/LIFE-  
LONG LEARNING SKILLS**

and

**THE CONTENT EXIT STANDARDS**

*The information provided in this section is offered to support  
the teacher's planning, delivery, and assessment efforts.*



## K-12 UNIVERSAL/LIFE-LONG LEARNING SKILLS

### GRADE ONE APPLICATION OF UNIVERSAL/LIFE-LONG LEARNING SKILLS

The skills detailed below are to be integrated in all instructional experiences - wherever and whenever possible.

- **READ, WRITE AND LISTEN FOR MANY PURPOSES**
  - Begin to identify the purpose of reading and writing particular texts
  - Read a variety of material for sustained lengths of time
  - Begin to make appropriate book choices for independent reading, locating appropriate materials in a collection
  - Differentiate between fiction and nonfiction
  - Respond with curiosity and awe
- **DEVELOP AND APPLY THINKING STRATEGIES**
  - **Ask questions for clarification and understanding**
    - Ask questions of themselves and the information sources they use before, during, after reading
    - Answer “who,” “what,” “when,” “where,” “why,” and “how” questions about nonfiction text
    - Develop and ask a question that would provide more information about a topic after reading a nonfiction text
    - Begin to understand that some answers to some questions are found in the text, but that others must be inferred based upon background knowledge or an outside source
    - Respond to an essential question
  - **Activate relevant, prior knowledge (schema)**
    - Make multiple feasible predictions
    - Use prior knowledge and experiences to draw conclusions
    - Use prior knowledge (text to self, text & world) to construct meaning
    - Distinguish between connections that are meaningful and relevant and those that are not
    - Confirm/change predictions using supporting evidence
  - **Determine the most important ideas or themes from information sources**
    - Use text, visual and auditory clues to extract basic information
    - Begin to understand that not all information is important, *e.g., identifies topic with two important facts*
    - Utilize text features to help distinguish important from unimportant information
  - **Create sensory images from information sources**
    - Develop an awareness that creating mental images enhances comprehension
    - Use sensory imagery to construct meaning through a variety of visual and verbal experiences
    - Recognize and begin to revise images based on new information in the text, new interpretations developed by the reader, and/or in response to shared images of other readers.
  - **Analyze data and recognize patterns**
    - Recognize and use sensory data (e.g., observations) as sources of information with teacher support
    - Recognize visual and auditory patterns
    - Recognize patterns in graphs, charts, and arrays
    - Begin to understand sequence/logical order, cause/effect, compare/contrast, and categorize/classify
  - **Draw inferences from information sources**
    - Understand that inferences are made when answers to questions are not explicitly stated in text
    - Make valid inferences using supporting evidence
  - **Synthesize information**
    - Retell contents from information sources in a logically sequenced manner.
    - Begin to draw upon prior knowledge and experiences to make critical judgments or create new ideas
    - Begin to summarize ideas in writing

Recognize generalizations [big ideas] with teacher support

- **Monitor meaning and comprehension**
  - Check understanding and information for accuracy
  - Make adjustments to improve clarity of thinking
  - Repair comprehension when it breaks down
- **Engage in reflection to evaluate process and product**
  - Select own “best” works and verbalize criteria used
  - Reflect orally on reading behaviors when prompted, *i.e.*, *What did I learn today as a reader?*
- **DEVELOP AND APPLY SKILLS IN TECHNOLOGY TO THE LEARNING PROCESS**
  - Develop introductory skills in word processing, graphics, telecommunications and presentations
  - Use appropriate technologies to create written, visual, oral and multimedia products such as slide shows
- **COMMUNICATE WITH CLARITY AND PRECISION**

# Grade 1 Content Specific Curriculum Standards and Building Blocks

## -Reading/Language Arts-

### Reading

- **Demonstrate an awareness of concepts of print**

#### Initial Understanding

Identify title page, table of contents, author and illustrator of books  
Match one spoken word to one written word (1:1)  
Distinguish between letters, words and sentences  
Read simple graphs, charts and diagrams

- **Demonstrate phonological awareness (sounds in speech)**

#### Initial Understanding

Identify initial, medial and final consonant sounds in a word  
Distinguish long/short vowels in orally stated words (bit/bite)  
Add delete, or change initial sounds to change words  
Recognize words have different lengths through syllabication (claps)  
Blend up to four orally presented sounds in a correct CVC word  
Segment one-syllable words by identifying initial, medial and final sounds

- **Develop and apply graphophonic skills (sounds/symbols)**

#### Initial Understanding

Recognize and know the sound of all letters of the alphabet  
Create/state series of rhyming words including blends  
Know sounds for common letter patterns, *e.g., sh, ch, th, wh, ph, kn, oo, ee, igh*,  
Identify word families, *e.g., -ake, -ick*  
Identify short and long vowels  
Identify “y” as a vowel

#### Developing An Interpretation

Decode regular one-syllable words, *e.g., sit take, need* and nonsense words, *e.g., vit, dake, jeed*  
Decode compound words, contractions, and words with common inflectional endings, *e.g., -s, -es, -ed and -ing*  
Use a variety of context and graphophonic clues to decode unknown words, *e.g., draws on picture clues, background knowledge, initial/final sounds, vowel sounds, word endings*

- **Develop a sight vocabulary (high frequency words, color words, number words, and environmental signs and symbols)**

#### Initial Understanding

Use classroom labels, signs and instructions as resources for high frequency words  
Recognize and demonstrate automaticity of grade level high frequency words and vocabulary (minimum 110)  
Categorize words, *e.g., fruits/vegetables, things that move*  
Recognize words have more than one meaning  
Use a variety of strategies for making sense of how a word is used in a text, *e.g., compound words, contractions, word families, inflectional endings and root words*  
Recognize when one does not know a word

- **Begin to read aloud with expression and fluency, demonstrating the development of rhythm, cadence, and an understanding of end punctuation marks**

#### Initial Understanding

Independently read aloud from unfamiliar Level J books (fiction and nonfiction) with 95% accuracy or better  
Independently read aloud from unfamiliar Level J books (fiction and nonfiction) at a rate of 55-85 correct words per minute

#### Developing an Interpretation

Begin to use punctuation cues (including periods, exclamation points, question mark) to guide fluency and comprehension  
Begin to use intonation, pauses and emphasis to signal meaning of both narrative and informational text

- **Develop and apply universal thinking and comprehension strategies to a variety of genres (nonfiction & fiction)**

#### Initial Understanding

Preview text to form initial ideas/predictions regarding content using:  
Author, title, illustrator, title page, table of contents, glossary and dictionary

Begin to establish purpose for reading

Use a variety of self-monitoring strategies to solve reading problems:

Rereading, reading on, classroom resources, etc.

Develop graphophonic word recognition strategies (e.g., Does it look right/word parts)

Develop semantic strategies (Does it make sense? Context and picture clues)

Develop syntactic strategies (Does it sound right? Punctuation, etc.)

Verbalize about strategies used.

Retell including details about characters, setting, problem, and main events, and solutions

Retell major contents of an information source in a logically sequenced manner

Experience a variety of poetic forms and styles

Recognize that songs are poems with music

Recognize that poems sound and look different from stories

#### Developing an Interpretation

Identify and describe text elements and structure differences in both fiction and nonfiction

Identify repeating story and language patterns

Compare similar elements in folktales

Begin to recognize a variety of special features of nonfiction text

Sequence the events revolving around the character's problem or nonfiction information

Distinguish between reality and fantasy

Infer and articulate the lesson a tale teaches

Discuss recurring themes across texts (e.g., big ideas about friendship, family, change, the importance of an object)

Use illustrations to determine the character's feelings through facial expressions

Begin to develop awareness of various genre and literary devices (e.g., rhyme, rhythm, repetition, figurative language) as they apply to genre structures.

Demonstrate an awareness of rhythm and cadence through movement

Discuss author's craft: why an author might have chosen particular format of piece, use of rhyme, rhythm and repetition, illustrations, beginnings and endings, and character development

#### Making Connections

Compare and contrast their own lives with the lives of the characters

Compare and contrast characters, settings, problems, and events from one text to another

Begin to compare and contrast one information source to another or to personal experiences

Use knowledge of what is important and relevant in text to answer questions and synthesize text

#### Critical Stance

Analyze and evaluate illustrations that correspond to text based on class-established criteria

Evaluate or rate a story or character using prior knowledge and support from the text

Evaluate the beginnings or endings (solutions) of text based on class-established criteria

Create alternative solutions to the problem

Express the moral or lesson of the story

Explain how the character(s) change as a result of their experiences

Support oral and written responses with evidence from the text

## **Writing**

- **Identify and use appropriate modes of writing for a variety of purposes/audiences with or without teacher assistance**

### Initial Understanding

Write in a variety of modes (to share an experience or event, tell a story, respond to text, explain a how-to, or communicate information):

Descriptive: details about a topic with adjectives

Narrative: personal and fictional with action verbs, demonstrating voice (tone, expressive language)

Expository: personal notes or letters; writing how-to

Persuasive: reasons for liking something

Poetic: 2 or more lines of rhymed text (nursery rhymes)

### Critical Stance

Determine reason for writing piece (e.g., to inform, entertain, clarify)

Determine the audience for writing (e.g., self, peer, family, teacher and public)

- **Begin to recognize and use the stages of a writing process (prewriting, drafting, revising, editing and publishing) with or without teacher assistance**

## **Prewriting**

### Initial Understanding

Use a variety of prewriting strategies (e.g., brainstorming, visualization, drama, drawing, discussions, research, etc.)

Begin to generate ideas independently

Begin to develop strategies for choosing a topic

### Developing an Interpretation

Develop organizational strategies (e.g., lists, graphic organizers, etc.)

## **Drafting**

### Initial Understanding

Contribute ideas in shared and interactive writing

Demonstrate ability to use plan for connecting ideas in clear, logically sequenced passages and responses

Maintain focus

Include details when summarizing

Use a combination of writing and pictures

Create writing that sounds like talk and that can be read by themselves and others

Create writing that represents sounds heard in words moving towards conventional spelling. of common words:

Onset and rime, e.g., bat, cat, fat; man, can, fan

Short vowel patterns, e.g., hat, pet, sip, mop, cut

Blends, e.g., st, tr, dr, br

Digraphs, e.g., sh, th, ch

CVCV words, e.g., like, make

Use periods, question marks, and exclamation points

Use nouns, verbs, and adjectives

Use simple singular and plural nouns, e.g., *house/houses*

Use capital letters for the first word in a sentence

### Developing an Interpretation

Write simple factual accounts and narratives with some elaboration using vivid, descriptive language

Use genre-specific elements

Demonstrate understanding of simple sentence structures

Begin to demonstrate understanding of paragraph structures (e.g., main idea and supporting details)

Begin to use mental images to enhance writing

### Making Connections

Use language, structure and ideas from shared and interactive writing and literature as models for their writing

## **Revising**

### Developing an Interpretation

Begin to change or add information

Revise for beginning, middle, and end

### Making Connections

Begin to use conferencing strategies for revision

### Critical Stance

Notice when simple text fails to make sense

Reread for self and audience and to reflect while writing

## **Editing**

### Initial Understanding

Use appropriate letters to represent all sounds in words

Making Connections

Use classroom resources such as charts and word lists to help with editing

Critical Stance

Edit for complete thoughts, high-frequency words, capitalization and end punctuation

**Publishing**

Initial Understanding

Begin to identify works ready for publication

- **Develop and apply legible penmanship**

Initial Understanding

Print legibly and space letters, words and sentences appropriately

## **Speaking, Listening, Viewing and Enacting**

- **Demonstrate grade appropriate use of standard English and delivery strategies**

### Initial Understanding

Recites poems, rhymes, songs and stories smoothly and clearly

### Developing an Interpretation

Use descriptive/sensory words and newly learned vocabulary when speaking about people, places, things and events

### Making Connections

Orally relate an important life event or personal experience using simple sequence

- **Respond critically to oral communication, films, videos, presentations, graphics and written work**

Demonstrate listening comprehension by:

### Initial Understanding

Listening attentively in a small or large group

Maintain eye contact (in line with cultural traditions) when listening to others

Know when to speak

Listen for specific answers in order to respond to questions

Listen to acquire information from a variety of sources

Follow multi-step directions

### Developing an Interpretation

React visibly to rhythmic patterns and moods in music and text

### Critical Stance

Show an understanding and appreciation of stories read to them

Respond orally to own and others' writing

- **Perform in a manner that guides the listener's understanding of key ideas, using appropriate phrasing, pitch and modulation**

### Initial Understanding

Express ideas in complete, coherent sentences

Pronounce sounds smoothly and clearly

Stay on topic when speaking

## **Mathematics**

- **Use numbers and objects to count, classify sort, compare, and order**

### Initial Understanding

- Compare 2 objects on the basis of 1 attribute
- Count orally to 100
- Make a reasonable estimate of the number of objects in a small set
- Use objects to correctly count a given set
- Match pictures of < 10 objects to numerals and words
- Use objects to create a wide variety of representations for numbers 1-10
- Build and interpret graphs using concrete objects
- Count forward to 100 by fives and tens; to 20 by twos; backward by ones from 20 to 0
- Identify half of a region, object or design as well as parts that are cut in 2 but are not halves; extend to fourths
- Determine ordinal position; objects 3-9.
- Use objects to explore many-to-one relationships (place value).

### Developing an Interpretation

- Sort collections by 1 or 2 attributes; verbalize sorting rules
- Classify objects using 1 or 2 attributes (size, color, and shape); verbalize classification rule.
- Order 3-5 objects on the basis of 1 attribute and verbalize rule
- Compare 2 sets of objects (10) and verbalize relationship (more, less, and same)

- **Develop strategies to add and subtract simple whole numbers**

### Initial Understanding

- Use objects and build a set: 1 more/1 less, 2 more/2 less than given set
- Given 2 sets, count on from larger set; find sums to 10
- Use objects. (10) to find add/subtract relationships
- Use counters to model simple addition and subtraction story problems
- Use computer graphics to illustrate. a simple number sentence
- Use the calculator to create and extend simple number patterns

### Developing an Interpretation

- Match addition and subtraction number sentences to sets of concrete objects (10)

### Making Connections

- Solve oral story problems involving add and subtract (10) with pictorial representation

- **Discover, analyze, and create patterns**

### Initial Understanding

- Copy, extend, and create simple patterns involving attributes

### Developing an Interpretation

- Copy, extend, and create simple patterns involving numbers (1-19)
- Determine the probability of a simple chance event

- **Recognize money, time, linear measurement, and geometric shapes**

### Initial Understanding

- Identify pennies, nickels, dimes; their value and relationships
- Tell time to the hour using analog and digital clocks
- Estimate area of small shapes using spatial material
- Use non-standard units to measure familiar objects

### Making Connections

- Relate simple plane shapes (circle, rectangle, triangle, and square) to objects

## **NOTE:**

### Critical Stance

In Mathematics justifying, proving, or explaining a conjecture or answer is connected to the learning environment. Students are encouraged and expected to question each other's ideas and to explain and support their own ideas in the face of others' challenges. Each objective in mathematics can be framed to have students defend support, explain, or prove their answer. Educational research offers compelling evidence that student learn mathematics well only when they construct their own mathematical understandings. To understand what they learn, students must enact for themselves verbs that permeate the mathematics curriculum: "examine," "represent," "transform," "solve," "apply," "prove."

## **-Science-**

### **Physical Science**

#### **Forces and Motion**

##### **What makes objects move the way they do?**

- **The sun appears to move across the sky in the same way every day, but its path changes gradually over the season**

##### Initial Understanding

- Observe that the motion of objects can be changed by pushing and pulling
- Observe the movement of the sun across the sky
- Observe the movement of the moon across the sky
- Recognize that the calendar is based on the interactions of the Moon, Earth and Sun

##### Developing an Interpretation

- Describe the apparent movement of the sun across the sky and the changes in the length and direction of shadows during the day
- Explain how the ground temperature and seasons are affected by the angle at which the Sun's rays strike Earth
- Explain how the Earth's axis tilt and its movement around the Sun causes seasons

##### Making Connections

- Demonstrate that an object's motion can be described by tracing and measuring its position over time

##### Critical Stance

- Explain that an object's position can be described by locating it relative to another object or the background

### **Life Science**

#### **Structure and Function**

##### **How are organisms structured to ensure efficiency and survival?**

- **Living things have different structures and behaviors that allow them to meet their basic needs**

##### Initial Understanding

- Describe the needs of animals to survive
- Describe the needs of plants to survive

##### Developing an Interpretation

- Interpret the need for air, water and food for animals to survive in a given environment
- Interpret the need for air, water and sunlight for plants to survive in a given environment

##### Making Connections

- Compare and contrast the various ways that animals including humans, obtain water and food
- Identify the various structures that enable animals including humans to move around
- Compare and contrast the various structures that are found in plants which enable them to obtain water and sunlight

##### Critical Stance

- Recognize that there is an integral relationship between plants and animals including humans to each other and their environment

##### **How are organisms structured to ensure efficiency and survival?**

- **Organisms change in form and behavior as part of their life cycles**

##### Initial Understanding

- Recognize the stages of complete metamorphosis; identify animal species that have adapted this type of development to their survival
- Recognizes the stages of incomplete metamorphosis; identify animal species that have adapted this type of development to their survival

##### Developing an Interpretation

- Describe the changes in organisms, such as frogs and butterflies, as they undergo metamorphosis
- Describe the life cycles of organisms that grow but do not metamorphose

##### Making Connections

- Recognize that survival of the animal species is directly correlated to parental or environmental relationships
- Recognize that animals whether they metamorphose or not are an integral part of the environment

##### Critical Stance

- Describe how some organisms undergo metamorphosis during their life cycles; other organisms grow and change, but their basic form stays essentially the same
- Illustrate the relationship between parental responsibility of offspring and the offspring survival number in the environment

## Science and Technology in Society

How do science and technology affect the quality of our lives?

- **The properties of materials and organisms can be described more accurately through the use of standard measuring units**

### Initial Understanding

Identify various tools used for measurement i.e. ruler, meter stick, scale

### Developing an Interpretation

Understand that various tools can be used to measure, describe and compare different objects and organisms

### Making Connections

Estimate, measure and compare the sizes and weights of different objects and organisms using standard and nonstandard measuring tools

### Critical Stance

Recognize that there is an international measuring system that is used in the scientific communities SI system based on tens

## **Social Studies**

- **Construct a meaning for the term “geography”**

Initial Understanding

- Locate and name geographic features – (What? Where?)
- Identify landforms and describe their characteristics on a map
- Identify some goods we get from other places
- List different ways people move from place to place

Developing an Interpretation

- Describe natural and human-made features of an area
- Recognize that physical environment affects people
- Discuss how transportation connects people

Making Connections

- Compare and contrast schools in different places
- Describe a route as a way to get from one place to another
- Recognize how invention and technology help people

Critical Stance

- Construct a meaning for the term “geography”

- **Use maps, atlases, charts, and graphs to interpret information**

Initial Understanding

- Identify the parts of a map

Developing an Interpretation

- Describe the exact location of places in terms of street name and address number
- Define cardinal directions and use to locate places on a map
- Use benchmarks (units of measure) to estimate distance
- Use relative location words to describe where things are in a classroom
- Locate places and gather information, using a simple street map
- Use a diagram to identify physical features of the earth
- Distinguish between land and water on a map and describe the resources people need from each
- Access information from a map using colors and symbols in a map key and use this information to identify places in the school
- Compare a map to an aerial view and demonstrate how to identify and trace routes on a map
- Read and interpret a table
- Classify information using a pictograph

Making Connections

- Interpret, use, and distinguish various representations of the earth – (maps, globes, photographs)
- Use appropriate resources (atlases, charts, graphs) to generate, acquire, and interpret information

Critical Stance

- Demonstrate mapping an aerial view

- **Demonstrate an understanding of the relationship between basic economic concepts**

Initial Understanding

- Identify basic needs met within a family and recognize that family members work to provide for a family’s needs
- Understand that families must make economic choices
- Understand that people trade money for goods and services

Developing an Interpretation

- Describe the kinds of work performed by community members
- Explain why people need homes
- Explore how school workers help others
- Recognize that families have unlimited wants but limited resources
- Describe how we depend upon community helpers with specialized jobs
- Describe the consequences of making an economic choice
- Describe the kinds of work required to manufacture a product

Making Connections

- Distinguish between needs and wants
- Compare and contrast work for pay and volunteer work
- Compare and contrast goods and services

- **Recognize cause and effect relationships**

Initial Understanding

- Describe the school day and school week in terms of activities
- Read and construct simple time lines
- Identify the first Americans and the events of the Pilgrims' Thanksgiving

Developing an Interpretation

- Demonstrate an ability to use correctly, vocabulary associated with time—such as past, present, and future
- Identify and use various sources for reconstructing the history of transportation
- Explain time order and sequence events chronologically on a horizontal time line using time-order words, such as *first*, *second*, *third*, *next*, and *last*
- Recognize that holiday traditions link families over time
- Classify information into categories
- Recognize cause and effect relationships

Making Connections

- Compare and contrast schools of different times
- Identify and use various sources for reconstructing the history of transportation
- Interpret information from a pictograph
- Compare families today with families long ago

- **Recognize that people have different points of view**

Initial Understanding

- Describe the features of one's family, changes/needs/wants
- Describe factors, which make her/him a unique individual
- Describe ways children help one another at school

Developing an Interpretation

- Recognize that Americans celebrate different holidays and explore how families celebrate Thanksgiving today
- Describe the origins of diverse celebrations and recognize the importance of learning about people in other places
- Describe the effects of change on a whole family and its members
- Conduct an opinion survey

Making Connections

- Discuss the message of a poster
- Recognize that people may have different points of view

- **Recognize that rights and responsibilities will define an individual's role as a citizen**

Initial Understanding

- Give examples of the various institutions that make up a community
- Describe the importance of group cooperation
- Identify patterns for successful group interaction, such as respect for others, taking turns, and sharing responsibilities
- Examine the rights and responsibilities of the individual in social groups and explain how sharing responsibility benefits the individual and the group
- Recognize the value of positive interactions with friends, classmates, teachers, and other school workers

Developing an Interpretation

- Identify community leaders and recognize their roles and responsibilities in providing services to their community

Making Connections

- Understand their role as a citizen
- Compare rules in different groups and situations and explain consequences of breaking rules

Critical Stance

- Recognize that rights and responsibilities will define their role as a citizen

## **Information Literacy And Technology**

- **Operate and use computers and other technologies as tools for productivity, problem-solving and learning across the content area**

### Initial Understanding

- Use basic operational features of a computer and other available technology
- Use basic features of software (entering information, editing, and saving)
- Use established procedures to obtain assistance with hardware or software problems

### Developing an Interpretation

- Create word processing documents, drawing and paint documents, slide shows, and simple graphs using age-appropriate software
- Understand and expect that technology tools are constantly changing
- Distinguish between different technologies and their uses

### Making Connections

- Describe ways computers are used to help people, work, learn, and play
- Work collaboratively and cooperatively with peers and others when using computers
- Use content-specific software
- Begin to use proper keyboarding techniques

- **Define information needs and identify effective courses of action to conduct research and solve problems**

### Initial Understanding

- Understand concept of keywords for searching for information

### Developing an Interpretation

- Identify existing knowledge and list areas where more information is needed (with assistance)
- Develop an awareness of print, non-print, and / or electronic resources available through library media center

### Making Connections

- Restate the scope and criteria of a task (such as timeline, length, audience and presentation mode) with prompting
- Describe a course of action for addressing an essential question (with assistance)

### Critical Stance

- Frame an essential question that is related to a topic of interest or a given assignment (with assistance)

- **Understand and demonstrate a command of information skills and strategies to locate and effectively use print, non-print and / or digital resources to solve problems and conduct research**

### Initial Understanding

- Understand that information is stored and accessed in different ways - print, non-print and / or electronic resources (atlases, encyclopedias, dictionaries)
- Understand that keywords are used in searches
- Use Internet resources to locate information, with supervision

### Developing Interpretation

- Use basic print, non-print, and electronic reference sources (atlases, encyclopedias, dictionaries) to locate information (with assistance)
- Take notes in own words from a single source of information (with assistance)

### Making Connections

- Apply principles of organized information systems to learning endeavors
  - Alphabetize by first and second letter to find information in resources
  - Understand the purpose of online catalog to locate materials
  - Understand that information in the media center is organized in a standard way
  - Use organizing features of print, non-print and electronic materials (parts of a book and simple menus) to locate and use information
  - Navigate appropriate Internet web sites (with assistance)
- Interpret simple charts, graphs and tables in information sources

- **Apply evaluative criteria to the selection, interpretation, analysis, reorganization and synthesis of information from a variety of sources and formats**

Initial Understanding

Identify appropriate sources of information for a specific purpose

Developing Interpretation

Use technology to organize information

Demonstrate attentive and purposeful listening and viewing skills

Making Connections

Develop criteria to judge the relevance and completeness of information

Organize information into related categories (with assistance)

- **Use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions to others**

Initial Understanding

Develop awareness of the use of multimedia tools for communication

Making Connections

Construct slide shows and multimedia presentations to communicate ideas and present conclusions

Critical Stance

Create and share clear and meaningful presentations that communicate information and new knowledge appropriate for a specific audience

- **Evaluate the effectiveness and efficiency of their own choices and uses of information and technology for problem solving and communication**

Making Connections

Describe a process for searching for information (with assistance)

Critical Stance

Assess the retrieved information for relevancy and completeness (with assistance)

- **Demonstrate the responsible, legal and ethical use of information resources, computers and other technologies**

Initial Understanding

Understand that the right to copy original works is owned by the author or artist

Developing an Interpretation

Practice responsible use of print and non-print materials, computers and other technologies and networks

Making Connections

Give citation credit to original sources when using information

- **Develop life-long reading habits to foster personal enrichment and continuous learning**

Initial Understanding

Locate and access various genres of literature in the media center

Developing an Interpretation

Choose various genres for pleasure reading and/or listening

Choose a variety of reading material for information

Making Connections

Explain the role that reading plays as a valid activity outside of school

Analyze personal reading habits for the purpose of expanding reading choices

Critical Stance

Evaluate and choose reading materials based on interest, readability, and relevance

- **Develop a deeper awareness of media literacy as a life skill that is integral to modern citizenship and informed decision-making**

Initial Understanding

Recognize that information comes to us from a variety of media sources - print, television, radio, Internet

Developing an Interpretation

Understand the difference between reality and fantasy in the media

Making Connections

Understand that the purpose of advertising is to sell a product

Critical Stance

Question the credibility of information read, heard or seen