Math Cont.

Measurement and Data

✶ Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit

✶ Represent and interpret data. Make and use line plots to display a data set of measurements in fractions of units

✶ Understand concepts of angle and measure angles

Geometry

✶ Draw and identify lines and angles

✶ Classify shapes by properties of their lines and angles

Science

Earth and Space Sciences

✶ Use evidence to argue that changes to a landscape due to erosion and deposition over long periods of time result in rock layers and landforms that can be interpreted today

✶ Provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering and moved through erosion

✶ Analyze and interpret maps of Earth's mountain ranges, deep ocean trenches and placement of volcanoes and earthquakes

✶ Evaluate the design of a solution on its potential to reduce the impacts of a natural disaster

Life Science

✶ Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior and reproduction

Physical Science

✶ Explain how the speed of an object is related to the energy of that object

✶ Make observations to show that energy can be transferred by sound, light, heat, and electric currents

✶ Predict outcomes about changes in energy that occur when objects collide

✶ Develop a model of a simple wave

✶ Describe that light must bounce off an object and enter the eye for the object to be seen

Technology/Engineering

✶ Plan, test and redesign a model taking into consideration relevant design features (size, shape, weight)

Social Studies

History

✶ Describe the diverse nature of the American people by identifying the distinctive contributions to American culture of indigenous peoples and immigrant groups in different regions

Geography

✶ On a map of U.S., locate important geographic features

✶ Identify the major regions of the U.S. and label the states, state capitals, and major cities on a map

✶ Describe the climate and major natural resources of each U.S. region

✶ Identify the five different European countries (France, Spain, England, Russia, and the Netherlands) that influenced different regions of the present United States

✶ On a map of North America, label Canada, its provinces, and major cities

✶ Describe the climate and major natural resources of Canada

The Bourne Public Schools Curriculum Guides highlight the targeted skills for each grade level, Kindergarten through grade 4. Targeted skills are from the most recent Massachusetts Curriculum Frameworks in the following areas:

✶ MA Curriculum Frameworks for English Language Arts & Literacy, March 2011

✶ MA Curriculum Frameworks for Mathematics, March 2011

✶ MA Science & Technology/Engineering Standards Draft, December 2013

✶ MA Curriculum Frameworks for History and Social Science, August 2003

BOURNE PUBLIC SCHOOLS

Curriculum Guide

Grade 4

Bourne Public Schools
36 Sandwich Road
Bourne, MA 02532

www.bourneps.org

Literacy

Reading Literature and Informational Texts

✶ Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from it

✶ Determine the main idea or theme in a text from details; explain how it is supported by key details; summarize text

✶ Describe in depth the story elements of a non-fiction text, drawing on specific details in the text

✶ Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text

✶ Determine the meaning of words and phrases in fiction and non-fiction text

✶ Analyze the structure of fiction and non-fiction texts, including poetry and drama, and describe or explain the major differences between different text types, referring to their structural elements when writing or speaking

✶ Compare and contrast point of view from which fictional stories are narrated, or firsthand/secondhand account of the same non-fiction event or topic

✶ Explain how content presented in diverse media formats contribute to the meaning of text

✶ Explain how an author uses reasons and evidence to support particular points in a non-fiction text

✶ Locate and analyze simile and metaphor in stories, poems, folktales, and plays

✶ Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably

Foundational Skills

✶ Know and apply grade-level phonics and word analysis skills in decoding unfamiliar, multi-syllabic words

✶ Read with sufficient accuracy and fluency to support comprehension of grade level texts

Writing

✶ Compose a multi-paragraph piece in the following genres: Opinion, Informative/Explanatory, and Narrative

✶ Write stories, poems, and scripts that use similes and/or metaphors

✶ Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience

✶ With guidance and support, develop and strengthen writing by planning, revising, and editing

✶ With some guidance and support, use technology, including the internet, to produce and publish writing as well as to interact and collaborate with others

✶ Conduct short research projects that build knowledge through investigation of different aspects of a topic

✶ Write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences

Speaking and Listening

✶ Engage effectively in a range of collaborative discussions with diverse partners, building on others' ideas and expressing their own clearly

✶ Paraphrase portions of a text read aloud or information presented in diverse media and formats

✶ Identify the reasons and evidence a speaker provides to support particular points

✶ Report on a topic or text, tell a story, or recount an experience, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly and at an understandable pace

✶ Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas

Language

✶ Demonstrate command of conventions of standard English grammar and usage when writing or speaking

✶ Demonstrate command of conventions of standard English capitalization, punctuation, and spelling when writing

✶ Use knowledge of language and its conventions when writing, speaking, reading, or listening

✶ Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing from a range of strategies

✶ Demonstrate understanding of figurative language, word relationships, and nuances in word meanings

✶ Learn assigned spelling words

Math

Operations and Algebraic Thinking

✶ Use the four operations with whole numbers to solve problems

✶ Interpret a multiplication equation as a comparison

✶ Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations.

✶ Gain familiarity with factors and multiples

✶ Find all factor pairs for a whole number. Determine whether a given whole number is prime or composite

Number and Operations in Base Ten

✶ Generalize place value understanding for multi-digit whole numbers

✶ Use place value understanding and properties of operations to perform multi-digit arithmetic

✶ Fluently add and subtract multi-digit whole numbers using the standard algorithm

✶ Fluently multiply and divide multi-digit whole numbers and illustrate and explain the calculation by using equations, rectangular arrays, or area models

✶ Know multiplication facts and related division facts through 12X12

Number and Operations - Fractions

✶ Extend understanding of fraction equivalence and ordering. Explain using visual fraction models

✶ Compare two fractions with different numerators and different denominators

✶ Build fractions from unit fractions and decompose a fraction into a sum of fractions with the same denominator

✶ Add and subtract mixed numbers with like denominators

✶ Multiply a fraction by a whole number

✶ Solve word problems involving addition and subtraction of fractions

✶ Solve word problems involving multiplication of a fraction by a whole number

✶ Understand decimal notation for fractions, and compare decimal fractions. Record the results of comparisons