Unit 2: 1st Grade T&G

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Department of Curriculum and Instruction

Belleville Public Schools

Curriculum Guide

Unit 2: T&G Curriculum

First Grade

Belleville Board of Education

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Unit Overview

PHILOSOPHY

The philosophy of the Talented & Gifted Program for Belleville Public Schools is to recognize the unique talents and cababilities of all students. Students who demonstrate exceptional abilities require a challenging and a differentiated curriculum. We recognize that students learn in different ways and possess different experiences and levels of understanding. Students deserve an educational environment that is challenging, stimulating, individualized, and learner driven. The curriculum has been designed to maximize students' creative, culutural, and cognitive needs. The cornerstone belief of the Talented and Gifted Program is that children learn best when they are actively engaged in the quest for knowledge.

PURPOSE

The purpose of the Belleville School District Talented & Gifted Program:

- Provides students with experiences to increase their cognitive and affective abilities through frequent applications of creative thinking, problem solving, critical thinking, exploration, discovery, and experimentation.
- Provide a three-part model of learning activities:
  Tier 1: Whole Group Instruction in the classroom setting during a typical school day involving cross curricular involvement. (K-5)
  Tier 2: To further enhance the talents and abilities of students via the use of small group instruction in guided reading and math groupings.
- The three characteristics used for identifying students are above average ability, task commitment, and creativity.
- Discover, encourage, and provide educational opportunities and activities to every student in his/her personal learning style, to include visual-spatial, musical, naturalist, bodily kinesthetic, interpersonal, intrapersonal, linguistic, verb-linguistic, and logical-mathematical.
- To develop and encourage students to apply higher level thinking processes to become producers of information as well as consumers of information.
- The program will enhance student's level of understanding concepts, ideas, and issues in the areas of knowledge, comprehension, application, analysis, synthesis, and evaluation.
- Intellectual architecture fueled by teacher designed lessons that build upon identified students' strengths, interests, and talents.
- This program is designed to be student driven, in which the teacher acts as an facilitator, guide, or resource for personal or small group inquiries and investigations.
- The three characteristics used for identifying students are above average ability, task commitment, and creativity.
  Students are identified based on unique talents, abilities, and interests to form a talent pool.

At the K-2 levels, enrichment is intended for all students. It will be availible to encourage students and give them additional opportunities to achieve their highest potential.

The activities in this unit reflect ELA, math, science and technology endeavors which support differentiated instruction that addresses grade level needs as well as high capability needs.

New Jersey Student Learning Standards (NJSLS)

CCSS.Math.Content.2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems

	involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CCSS.Math.Content.2.OA.B.2	Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
CCSS.ELA-Literacy.RL.1.2	Retell stories, including key details, and demonstrate understanding of their central message or lesson.
CCSS.ELA-Literacy.RL.1.3	Describe characters, settings, and major events in a story, using key details.
CCSS.Math.Content.2.NBT.A.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
CCSS.ELA-Literacy.RF.1.4.a	Read grade-level text with purpose and understanding.
CCSS.ELA-Literacy.SL.1.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
LA.1.CCSS.ELA-Literacy.CCRA.R.7	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
LA.1.CCSS.ELA-Literacy.CCRA.R.9	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.
LA.1.CCSS.ELA-Literacy.CCRA.R.10	Read and comprehend complex literary and informational texts independently and proficiently.

Exit Skills

By the end of Unit 2, students should be able to:

- Make predictions based on observations of title and illustrations.
- Add on to a group in order to find a total amount.
- Solve problems as a part-part-whole problems when joining or putting them together.
- Use subtraction to determine how many more are in one group than another.
- Determine if an equation is true or false.
- Determine the value of an unknown which will make the equation true.

Enduring Understanding

- Making predictions about a story based on previewing the title and illustrations provide insight.
- Working together makes getting tasks done in a more effective manner.
- Mathematical expressions represent relationships.
- In everyday life, we combine and separate quantities to solve problems.
- More efficient computation occurs when using combinations of 10.

Essential Questions

- How do addition and subtraction relate to each other?
- How do I know which operation to use to solve a problem?
- How do I determine which computational strategy to use?
- How do readers make sense of what they read?
- How can we express ourselves clearly to others?
- What are the different steps of the scientific method and how do they work together?

Learning Objectives

By the end of this unit, students will be able to:

- explore how to make different sounds with a straw by using the scientific method.
- hypothesize what will happen when detergent and milk mix together.
- work together to create a trap to catch the gingerbread man.
- use addition skills to budget the items necessary for Oscar the Cat's survival.

Interdisciplinary Connections

The T&G Curriculum areas of divergent thinking, convergent thinking, visual/spatial perceptions, interpretive thinking, and problem solving are integrated with Language Arts, Math, Science, and other content areas.

SCI.K-2.5.3.2.C.2	Identify the characteristics of a habitat that enable the habitat to support the growth of many different plants and animals.
SCI.K-2.5.3.2.C.b	A habitat supports the growth of many different plants and animals by meeting their basic needs of food, water, and shelter.
VPA.1.1.2	All students will demonstrate an understanding of the elements and principles that govern the creation of works of art in dance, music, theatre, and visual art.

Alignment to 21st Century Skills & Technology

Key SUBJECTS AND 21st CENTURY THEMES

Mastery of key subjects and 21st century themes is essential for all students in the 21stcentury.

Key subjects include:

- English, reading or language arts
- Arts

- Mathematics
- Science

21st Century/Interdisciplinary Themes

- Financial, Economic, Business and Entrepreneurial Literacy
- Global Awareness

21st Century Skills

- Communication and Collaboration
- Creativity and Innovation
- Critical thinking and Problem Solving
- Media Literacy

Technology Infusion

- SMARTboard
- Computers
- iPads/Tablets
- Powerpoint presentations
- Videos
- MS Office 365



Differentiation

Special Education

- printed copy of board work/notes provided
- additional time for skill mastery
- assistive technology
- Center-Based Instruction
- check work frequently for understanding
- computer or electronic device utilizes
- have student repeat directions to check for understanding
- highlighted text visual presentation
- multi-sensory presentation
- preferential seating
- preview of content, concepts, and vocabulary
- secure attention before giving instruction/directions
- student working with an assigned partner

ELL

- teaching key aspects of a topic. Eliminate nonessential information
- using videos, illustrations, pictures, and drawings to explain or clarif
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning;
- allowing students to correct errors (looking for understanding)
- decreasing the amount of workpresented or required
- having peers take notes or providing a copy of the teacher's notes
- providing study guides
- tutoring by peers
- using computer word processing spell check and grammar check features

Intervention Strategies

- allowing students to correct errors (looking for understanding)
- teaching key aspects of a topic. Eliminate nonessential information
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning
- decreasing the amount of workpresented or required

- having peers take notes or providing a copy of the teacher's notes
- marking students' correct and acceptable work, not the mistakes
- providing study guides
- tutoring by peers
- using videos, illustrations, pictures, and drawings to explain or clarify

Evidence of Student Learning-CFU's

Please list ways educators may effectively check for understanding in this secion.

- Compare & Contrast
- Define
- Describe
- Evaluate
- Evaluation rubrics
- Exit Tickets
- Explaining
- Fist- to-Five or Thumb-Ometer
- Illustration
- Journals
- KWL Chart
- Question Stems
- Red Light, Green Light
- Think, Pair, Share
- Think, Write, Pair, Share

Primary Resources

- Envision Mathematics
- Scott Foresman Series
- Reading A-Z
- Decodable readers
- Being A Writer
- Leveled Readers
- Running Record (DRA)
- Sadlier Resources
- Recipes for Reading (Orton Gillingham)

Ancillary Resources

www.discoveryeducation.com

www.readinga-z.com

www.watchknowlearn.com

www.mobymax.com

www.readtheory.org

www.starfall.com

www.brainpopjr.com

Sample Lesson

1. Musical Strawshttps://www.youtube.com/watch?v=F4xY0Pd9Hys

In the companion STEM Activity Challenge (Musical Straws), students will explore sound. They will cut a normal straw and turn it into a musical instrument. They will cut the straw to different lengths and analyze how the length changes the pitch.

Art Challenge: Have the students make up a song with their musical straw and notify you (the teacher) when they are ready to perform it for you.
The goal of this challenge is to help the kids make the connection between science and the art of making music.

2. Color Changing Milk-https://www.youtube.com/watch?v=Hr6dZ6aWpF4

Question: What will happen when you add food coloring, milk, and dish detergent?
Pour milk into the plate. Then, add 3 drops of blue food coloring (placed together), three drops of red food coloring (placed together) three drops of yellow food coloring (placed together), and three drops of green food coloring (placed together). Using the cotton swab, drip one end in dish detergent.

Using the side that's soaked in detergent, place (do not move) swab in one of the food coloring colors in the milk and observe what happens.

T&G Question: "Why is there movement? What causes this?"

3. Gingerbread Man Trap (PDF)

Using the selected materials, students will create a 'trap' for a paper gingerbread man.

4 A Home for Oscar (PPT)

Students will follow the PPT prompt and decide what would be a good habitat for Oscar. Students will use addition skills to budget the items necessary for Oscar the Cat's survival.