

Enhancement Activities/Strategies for Gifted/High Ability Learners: Sample Math Learning Plan

Big Idea/ Topic

Represent, relate, compare and perform operations with whole numbers, initially with sets of objects

Standard Alignment

MGSEK.CC.3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

MGSEK.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.

- a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (one-to-one correspondence)
- b. Understand that the last number name said tells the number of objects counted (cardinality). The number of objects is the same regardless of their arrangement or the order in which they were counted.
- c. Understand that each successive number name refers to a quantity that is one larger.

Advanced Research

- Choose a video about math challenges. Advanced students who enjoy math and crave additional challenges will enjoy this challenge.
- Gifted students are natural collectors. They love saving special things and showing off their collections. Teach students how to collect and organize data about their collections. Have students practice counting, sorting, and comparing the items in their collections. Help them research to learn more about their collection topics of interest.
- Introduce your young students to the language of coding. There are many coding websites that have activities for students, even as young as kindergarten.

Communication

- Challenge your students to record videos where they explain how they solved a problem. Verbally explaining solution strategies will greatly help students in later elementary years when written explanations are required. Manipulatives are a great starting point to help young students discover mathematical patterns.
- Play simple number games such as asking “Which number is less than 20, but...?” This game is a great opportunity for the teacher to see what mathematical concepts students know and understand as they ask quest
- Provide an opportunity for students to think creatively about numbers and mathematical visuals. Display a puzzle for students and have them make claims about which number they think doesn't belong and support it with evidence. It is interesting for students to see how many different “correct” answers their class can generate. This is a great challenge to help students realize that sometimes problems can have more than one solution.

Critical Thinking and Critical Problem-Solving Skills

- Practice counting to 100. Make it into a game.
- Practice counting and simple addition.
- Challenge your kindergarteners to solve puzzles.
- Challenge your students to visualize and use logical thinking math challenges.
- Have students practice high-frequency words and addition with this fast-paced, easy to differentiate game. Provide students with a set of word or vocabulary cards that you want them to practice reading and/or writing. Then provide a value chart, listing a number value for each letter (such as A, B, C, D, E = 5; F G H I J = 7; K L M N O P = 8, etc.) Two players compete against each other. Each player draws a word card at the same time and starts adding to find the value of their word. The player who finds the value of their word first wins, or you can have the player whose word has a larger value win the round. The game can be differentiated to meet students' particular needs by adjusting the word cards or changing the number values.

Creative Thinking and Creative Problem-Solving Skills

- Have students turn images of numbers into pictures that help them recognize the numbers and remember their value. Then, have students write stories that explain their pictures.
- Have students build pictures or patterns with blocks, then count and sort how many of each

type or color of blocks is needed to build their structure. An alternative idea is to build structures with toothpicks and marshmallows and have students sort how much of each type of material is needed to build their designs.

Awareness of Self—Student’s Well-being

- Have the students play a math game where they must share. Discuss why this is an important skill to learn.
- Train your students to have grit and persevere when challenges are tough. Advanced students have often been told, “You’re so smart!,” so when a challenge occurs and they feel “not smart,” they sometimes are not sure how to handle that situation. Get in the habit of praising students for hard work, rather than “being smart.” Train students to realize the value that “staying in the struggle” has to the learning process. Ask your media specialist to assist you with locating books about math and how sometimes students are anxious with math. Read these books to the students and discuss to help prevent math anxiety in young students and it helps humanize mathematics for students as well.