

# USING CHOICE BOARDS TO INCREASE RIGOR AND DIFFERENTIATE INSTRUCTION IN ELEMENTARY MATHEMATICS

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**BONNIE MURRAY AND TIFFANY WILLIAMS**

Mathematics proficiency scores show the lingering effects of the learning loss students experienced during the 2019-2020 school year. While mathematics performance levels overall have rebounded, the percentage of third grade students scoring at the Masters Level on the Grade 3 STAAR Mathematics test decreased from 30% in 2022 to 19% in 2023 (Texas Education Agency, 2023). This data indicates an opportunity to provide rigorous learning experiences for students in elementary mathematics. As students progress through elementary school, the complexity of the learning standards requires the mastery of computational, conceptual, analytical, and problem-solving skills. Rigor in the mathematics classroom involves creating learning environments that nurture and develop these skills in students with varying levels of mathematical fluency.

## Introducing Differentiated Choice Boards

**Pre-Assess:** Administer a pre-assessment to the entire class at the beginning of the unit or week. If a student shows mastery (e.g., 85%) before receiving instruction on the unit, offer the student differentiated activities.

**Set Expectations:** Prior to assigning a choice board, determine the expectations you have for students. For example, teachers may decide that students must complete each activity, but they can choose the order of completion. Teachers may also decide that students can choose which activities to complete (e.g., pick three in a row, choose five).

**Flexibility:** There are many ways to flexibly use choice boards in elementary classrooms. For example, the boards can have a blend of independent and partner work. As teachers create TEKS-aligned activities, they can easily adjust the level of difficulty in independent or partner work to meet the needs of each student. In multiple ability classrooms, this can include scaffolded activities for intervention, on-level instruction, enrichment, or blended learning. Choice boards can be printed or digital copies can be loaded in learning management platforms, such as Google Classroom. These boards also provide opportunities for formative assessment.

### Choice Board Example and Standards Alignment

Choice board activities, like the one included in this resource, provide an instructional tool teachers can implement to create customized learning experiences. The following choice board integrates hands-on mathematics activities to differentiate instruction for advanced learners in second grade math. This sample board incorporates the depth and complexity icons (“Depth and complexity icons,” 2024). This resource aligns with the *Texas State Plan for the Education of Gifted/Talented Students* (Texas Education Agency [TEA], 2019) Curriculum and Instruction Accountability Standard 4.1, which notes that students should be provided “an array of appropriately challenging learning experiences in each of the four (4) foundation curricular areas” (p. 9). The choice board resource also aligns with the [Grade 2 Texas Essential Knowledge and Skills \(TEKS\)](#) for math, including place value, number sense, and interdisciplinary topics. This resource is intended to support advanced learners as they develop mathematical proficiency and classroom teachers as they support improved learning outcomes in mathematics. This resource can be modified to fit the needs of students.

Name \_\_\_\_\_ Date \_\_\_\_\_

## 2nd Grade Math Choice Board- Advanced

### Let's Think



Illustrate a food chain which includes 3 consumers. Their total weight is 752 pounds. How much does each consumer weigh?

### Continue the



Using one sentence strip to create and extend each pattern, start at 67 and count on by 2, 5, and 8.

### Make Your Own



Create riddles that describe 3-digit numbers based on their place value and have a classmate guess the number.

### Solve It!

Find all of the possible correct answers

$$\begin{array}{r} \square 7 \square \\ - 4 \square \\ \hline 539 \end{array}$$



### Compose It!

Find all of the possible correct answers

How many different ways can you compose \$1.62 with only coins?



### Solve It!

Find all of the possible correct answers

$$\begin{array}{r} \square 3 \square \\ + 6 \square \\ \hline 500 \end{array}$$



### Share Your



Answer in your Math Notebook

1. Is 10 more always better? Why or why not?
2. True or False- 0 is the most important number. Why or why not?

### You Make the



Answer in your Math Notebook

Does adding two even numbers always lead to an even sum? What about even+odd and odd+odd? Create a list of Addition Rules.

In your Math Notebook

Create an acrostic poem for  
**PLACE  
VALUE**



## References

“Depth and complexity icons.” (2024). Center for Depth and Complexity.

<https://depthcomplexity.com/the->

[icons/?srsltid=AfmBOopi3JqI\\_IVlpcX2vvj3qYTOB\\_4t8pRLPG5oR68Jomhz-t2MXcy](https://depthcomplexity.com/the-icons/?srsltid=AfmBOopi3JqI_IVlpcX2vvj3qYTOB_4t8pRLPG5oR68Jomhz-t2MXcy)

Texas Education Agency. (2023). *TEA releases results for 2023 STAAR 3-8 Assessments*.

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Texas Education Agency. (2019). *Texas state plan for the education of gifted/talented students*. [https://tea.texas.gov/sites/default/files/GT\\_State\\_Plan\\_2019\\_1.pdf](https://tea.texas.gov/sites/default/files/GT_State_Plan_2019_1.pdf)

## Author Bios

**Bonnie Murray**, M. Ed., is an Advanced Academics Specialist with over a decade of experience in elementary education. She employs multi-modal active learning strategies to boost higher-order thinking in students and empower teachers with rich learning opportunities. Bonnie has conducted district-wide professional development sessions, using a practitioner approach to enhance social-emotional and instructional practices for gifted learners. Her passion lies in equipping educators with practical tools and knowledge to effectively support their students.

**Tiffany Williams**, Ed.D. is an educator with 21 years of instructional leadership experience. She has served as a middle school G/T teacher, mathematics instructional specialist, assistant principal (PK-8), high school associate principal, director of advanced academics, and education service center education specialist. Dr. Williams has focused on curriculum and

instruction, program evaluation, equity plans, project management, and leadership practices. She has presented her research and expertise at regional, state, and national conferences.