



Program of Excellence Mathematics

Champion Excellence

Fundamental to the role of a champion is the capacity to envision potential. It is the belief in one's potential, the potential of our students and our colleagues, and the potential of our educational system that gives us cause to act with intentionality and to persevere when we are faced with challenges. In order to cast a shared vision that drives collective action that embraces and the collective wisdom of the education community across Oklahoma, the Oklahoma State Department of Education has collaborated with educators and school leaders to develop Programs of Excellence rubrics that envision and describe the characteristics of excellent disciplinary programs within a school.

The Programs of Excellence rubrics are **emergent**, in that they are co-designed with input from educators across the state and always in draft form; **aspirational**, in that they speak to an idealized, holistic vision of each program that may be impossible for one school to fully embody; and **flexible**, in that they respect the unique contexts of Oklahoma's schools whether that be in size, geography, or demography.

Across disciplines, there are variations that bring perspective from the unique communities who shaped their contents, capturing real experiences, shared values, and a hope for well-rounded learning opportunities for all children in a safe and healthy school. Throughout the remainder of this year and the 2019-2020 school year, the Programs of Excellence rubrics will continue to change and grow as the best attributes across the disciplines are shared and insights from stakeholders are taken into account.

Please help shape this vision for excellent programs that all children deserve by sharing your input at <http://sde.ok.gov/ChampionExcellence>.

**“Every child deserves a champion,
an adult who will never give up
on them, who understands the power
of connection, and insists
that they become the best
that they can possibly be.”**

— Rita Pierson

Using the Program of Excellence Rubric

The responsibility of identifying a school disciplinary program as bronze, silver, or gold is placed on the school and its community. Through local evaluation and verification, a school can celebrate efforts and create strategic initiatives to improve. The OSDE will not verify each identification claim, but the school is expected to utilize the following process for reviewing and identifying its level of distinction.

1. **Review:** A school-based advisory committee involving external stakeholders as appropriate, will make recommendations for bronze, silver, or gold status. *It is not appropriate to assign the review process to an individual. The review process should be inclusive and transparent.*
2. **Verification:** The recommendation of the advisory committee must be signed off by each member of the committee and reviewed by the school principal. Upon verification by the principal, the recommendation will be submitted to the district school board and superintendent for review and verification.
3. **Submission (beginning summer 2020):** Only when each layer of review and verification is complete, the final self-identification will be submitted to the OSDE. Levels of distinction for Programs of Excellence will be valid for three years and will be visible on the school's accountability dashboard. *The remainder of this school year and the 2019-2020 school year provides schools with the opportunity to select priority areas for which they will work to be ready to identify as bronze, silver, or gold in 2020.*

In this Program of Excellence rubric, each element of the rubric is provided as a characteristic of a bronze, silver, or gold program. **In order to be a bronze mathematics program, every bronze element, or characteristic, must be true of the school's mathematics program.** A school's mathematics program may only be considered silver only when every bronze element **AND** every silver element is true. Likewise, a school's mathematics program may only be considered gold when every bronze, silver, **AND** gold element is true.

The fidelity of the Programs of Excellence process hinges on the fair and honest local review. Please help protect this ambitious effort to celebrate the great work happening across Oklahoma.

Category 1 Curriculum

The school faculty develops and implements a curriculum that is rigorous, intentional and aligned to state and local standards.



A BRONZE program...

- A. Supports teachers and school leaders in analyzing and understanding the Oklahoma Academic Standards for Mathematics (OAS-M), all applicable Oklahoma course competencies, and expectations for their grade level and/or content area(s).
- B. Ensures all teachers have the support needed to create a clear and identifiable trajectory of math content taught across the grade/courses through horizontal and vertical alignment. This trajectory empowers teachers and administrators to see the discipline of mathematics as being coherent, connected, and comprehensible across the grades, leveraging previously secured knowledge into the next grade level/course.
- C. Ensures classroom activities support meaningful connections among procedures, concepts, and contexts (where appropriate). Procedures are put in place to ensure that all classroom activities are cognitively complex and deeply rooted in the Mathematical Actions and Processes (MAPs). In choosing and designing activities, and in launching activities, teachers provide multiple access points to the relevant material, supporting the expectation that all students are able and expected to participate.



A SILVER program has all the elements of a BRONZE program and...

- D. Has a clear and concise plan of the remediation/intervention needed for students who are not academically advancing through their coursework. Effective intensification structures are put into place to meet the remediation/intervention needs of students, such as but not limited to, double dosing of mathematics course(s), tutoring, or other interventions aligned with the multi-tiered systems of support. Similarly, structures are put into place to ensure

Category 1: Curriculum (continued)

gifted and advanced students are adequately challenged and opportunities are provided for advancement through coursework, safeguarding that all (OAS-M) are mastered. The same structures are utilized for students moving between schools within a district or moving into the district, so that their academic needs are met within the first year of a transition.

- E. Offers a variety of mathematics courses/options that prepare students for college, career or life options, including at least two of the following:
- Opportunities for students to see and use mathematics in the real world are made available within all mathematics courses.
 - Real-world, hands-on math opportunities outside of the classroom, including but not limited to internships, field trips, and extra-curricular activities are available.
 - Advanced courses beyond Algebra 2 (such as Pre-Calculus/Trigonometry, Statistics and Probability, College Career Math Ready, etc.) are made available to all students in the regular school day or through partnerships.
 - Students are introduced to college and career fields and life options that utilize the mathematics being taught/offered at the school.

A GOLD program has all the elements of a BRONZE and SILVER program and...

- F. Has collaboration among administrators, teachers, and students to build purposeful real-world and academic connections into the curriculum.
- G. Provides a clear and concise individualized plan of the remediation/intervention needed for each student who is not academically advancing through his or her coursework. Effective, individualized intensification structures are put into place to meet the remediation/intervention needs of each student. Schools recognize that unique remediation techniques are needed for each student. Similarly, individualized instruction/structures are put into place to ensure each gifted and advanced student is adequately challenged and opportunities are provided for enrichment and advancement through coursework, safeguarding that all (OAS-M) are taught.



Category 2 Classroom Assessment

The school faculty uses multiple evaluation and assessment strategies to continuously monitor and modify instruction to meet student needs and support proficient student work.



A BRONZE program...

- A. Creates a comprehensive, balanced assessment system aligned to OAS-M and all applicable state standards/competencies, that includes both summative assessment of learning (reporting on what has been learned) as well as formative assessments for learning (providing ongoing feedback to teachers and students as learning progresses).
- B. Ensures teacher-created summative assessment of learning, as well as formative assessments for learning, are part of a comprehensive, balanced assessment system resulting from teacher collaboration that monitors students' knowledge and encourages students to develop their own strategies, approaches, and understandings of mathematics.



A SILVER program has all the elements of a BRONZE program and...

- C. Ensures teachers elicit student thinking to drive subsequent instruction that builds on productive beginnings and addresses emerging understandings from multiple forms of assessment (e.g., discussion, check-in, informal and formal assessments, etc.)



A GOLD program has all the elements of a BRONZE and SILVER program and...

- D. Ensures students are given the opportunity to collaborate with teachers to analyze assessment results and inform subsequent academic and instructional steps. Students are provided opportunities to reflect and evaluate their own learning, and teachers work with students to set academic goals based on assessments.

Category 2: Evaluation and Assessment (continued)

- E. Communicates with the community on the purpose behind formative assessments of learning and summative assessments for learning, and provides examples of how assessments are used to guide students' academic goals and instruction.

Category 3 Instruction

The school faculty provides an instructional program that actively engages all students by using effective, varied, and research-based practices to improve student academic performance.



A BRONZE program...

- A. Promotes, supports, and refines effective teaching that engages students in meaningful learning through individual and collaborative experiences that promote their ability to make sense of and reason through mathematical ideas. Teachers utilize effective teaching practices (NCTM, 2014), including but not limited to:
- Establish mathematics goals to focus learning.
 - Implement tasks that promote reasoning and problem solving.
 - Use and connect mathematical representations.
 - Facilitate meaningful mathematical discourse.
 - Pose purposeful questions.
 - Build procedural fluency from conceptual understanding.
 - Support productive struggle in learning mathematics.
 - Elicit and use evidence of student thinking.
- B. Empowers teachers to regularly select and utilize rich tasks. Tasks should provide students with the opportunity to actively engage in challenging content to develop reasoning, critical thinking, and problem-solving skills that establish a deep understanding of mathematics. In choosing and designing equitable tasks, multiple access points to the relevant material are provided to support the expectation that all students are engaged and expected to learn.

Category 3: Instruction (continued)

C. Provides teachers with opportunities to collaborate with other teachers to establish clear learning goals (i.e., big ideas, essential questions, and evidences of understanding) articulating the mathematics that students will learn as a result of instruction aligned to OAS-M or relevant competencies. Teachers explicitly connect concepts to previous and future lessons, and support along with supporting the purposeful use of academic language and other representations central to the discipline of mathematics.

D. Ensures all mathematics classrooms are led by certified mathematics teachers (elementary, elementary math specialist, intermediate, and/or advanced mathematics certification) with extensive knowledge of the grade-level mathematical content and Mathematical Actions and Processes (MAPs).



A SILVER program has all the elements of a BRONZE program and...

E. Fosters collaboration among teachers and students to establish clear learning goals aligned with OAS-M or relevant competencies.

F. Provides technological tools mathematics teachers strategically use to support both the learning of mathematical procedures and skills as well as the development of advanced mathematical proficiencies, such as problem-solving, reasoning, and justifying.

G. Provides teachers with the necessary high-quality materials and resources (in addition to textbooks) to effectively teach the OAS-M.



A GOLD program has all the elements of a BRONZE and SILVER program and...

H. Uses feedback provided by students to guide the implementation of instructional strategies.

I. Facilitates student-choice when provided with evidence-based instructional strategies and practices.

J. Communicates the purpose behind instructional strategies, goals, and changes to students' families and members of the community.

Category 4 School Culture

The school leadership team functions as an effective learning community and supports a climate conducive to performance excellence.



A BRONZE program...

- A. Collaboratively, and with stakeholder input, develops, communicates, and enacts a plan that ensures all educators approach teaching with a belief that all students can learn at high levels in order to achieve equity in mathematics. The school focuses on ensuring that all students have access to:
- high-quality instruction,
 - challenging curriculum,
 - innovative technology,
 - impactful extracurricular offerings,
 - differentiated support, and
 - enrichment necessary to promote students' success at advancing levels.
- B. Collaboratively, and with stakeholder input, develops, communicates, and enacts a plan that ensures all students are taught mathematics with equitable instructional practices. These practices include, but are not limited to:
- holding high expectations,
 - ensuring access to high-quality mathematics curriculum and instruction,
 - allowing adequate time for students to learn,
 - placing appropriate emphasis on differentiated processes that broaden students' productive engagement with mathematics, and
 - making strategic use of human and material resources.

Category 4: School Culture (continued)

- C. Collaboratively, and with stakeholder input, develops, communicates, and enacts a plan that ensures an equitable learning environment that assists all students in achieving intended instructional outcomes. Key practices include:
- creating clear learning goals and success criteria, so students understand what they are aiming for;
 - gathering evidence of learning during lessons to determine where students are relative to goals;
 - using a pedagogical response to evidence, including descriptive feedback that supports learning by helping students answer: *Where am I going? Where am I now? What are my next steps?*;
 - utilizing peer- and self-assessment to strengthen students' learning, efficacy, confidence, and autonomy; and
 - creating a collaborative classroom culture where students and teachers are partners in learning.
- D. Encourages students to solve and explain problems in ways that are meaningful to them. All students have access to substantial mathematical concepts, practices, and support in developing their own understandings and productive disciplinary identities.



A SILVER program has all the elements of a BRONZE program and...

- E. Communicates regularly with families about individual student progress, including various ways that families can support mathematics at home. Schools engage with families in ways that value families' existing knowledge and skills.
- F. Student inquiry and curiosity is encouraged, and students are provided opportunities to explore mathematics in the context of their world.



A GOLD program has all the elements of a BRONZE and SILVER program and...

- G. Uses a variety of approaches to effectively engage families and community members. Families and the community are active partners in the educational process and work together with the school and district staff to promote programs and services for all students.
- H. Utilizes multiple communication strategies to disseminate information to all stakeholders.
- I. Values and publicly celebrates student achievement.

Category 5 Professional Growth, Development, and Evaluation

The school leadership team understands the need for ongoing professional growth and self-efficacy, and the team works toward providing students with impactful mathematics learning opportunities.



A BRONZE program...

- A. Ensures professional development for teachers and school leaders that:
- provides the skills to support students' mastery of OAS-M and other applicable academic standards and competencies,
 - enhances mathematical content knowledge of teachers,
 - integrates overall school and district improvement plans,
 - focuses on research-based instructional practices, and
 - provides intensive and focused strategies for quality classroom practice.
- B. Ensures high-quality professional development for teachers is:
- teacher driven,
 - ongoing and sustained,
 - school-based and job-embedded,
 - content-centered,
 - focused on student needs, and
 - uses appropriate adult learning strategies.
- C. Provides multiple opportunities for teachers throughout the year to attend high-quality professional development to support the development of professional learning goals at no cost to teachers.

Category 5: Professional Growth, Development, and Evaluation (continued)



A SILVER program has all the elements of a BRONZE program and...

- D. Establishes a teacher mentor program, pairing early career math teachers (those in their first five years) with veteran teachers to help in shaping, motivating, and developing the next generation of teachers, particularly as expectations for students to become more rigorous.
- E. Provides early career teachers a strong, structured program of induction to ensure their success and increase the likelihood that they will remain in teaching, grow steadily in professional expertise, and find lifelong satisfaction in a career of continued service to their students and mathematics education.



A GOLD program has all the elements of a BRONZE and SILVER program and...

- F. Has each administrator develop a personal, professional learning plan, featuring at least one mathematics education-driven professional learning goal and created with input from teachers. Administrators participate in mathematics professional development opportunities in order to achieve the goals outlined in this plan.
- F. Provides opportunities for teachers and administrators to reflect on their understanding and implementation/evaluation of effective mathematical pedagogy and practice.
- G. Provides teachers with mathematics instructional coaches who share their curriculum and community-building expertise with teachers, work with teachers to improve and celebrate research-based effective practices, and help teachers achieve their professional learning goals. At the Pre-K through the 5th-grade level, mathematics instructional coaches have an Elementary Math Specialist certification.