



FISHTANK MATH HIGH SCHOOL

ABOUT FISHTANK LEARNING

Fishtank Learning provides teachers with the curriculum resources they need to engage, challenge, and inspire their students. Through our easy-to-navigate curriculum site, www.fishtanklearning.org, teachers can access comprehensive instructional materials for English Language Arts grades K–12 (Fishtank ELA) and for Mathematics grades 3–11 (Fishtank Math). Fishtank Learning offers both an OER curriculum solution and an enhanced curriculum solution called Fishtank Plus for schools seeking expanded resources that guide and support implementation.

MATH GUIDING PRINCIPLES

Written by former classroom teachers and leaders, the Fishtank Math curriculum is designed with students and teachers in mind first and foremost. We believe that all students deserve access to high-quality curriculum and that students should not need to prove they can do rigorous, grade-level math in order to gain access to it. We see these beliefs as key components of supporting anti-racist school practice, and we share our curriculum as a trusted resource for educators in this work. As a curriculum team, we are continually listening, learning, and iterating on our curriculum and resources to get this work right. We strive to help all students see themselves as confident and competent mathematicians who are able to apply their math knowledge both in and out of the classroom as global citizens.

With this in mind, we designed the curriculum to include a balance of student-directed and teacher-led learning. Students have ample opportunities to investigate, explore, and be the drivers of their own learning. At the same time, teachers have what they need to ensure students are adequately guided through the process of learning and towards strong conclusions. The curriculum is also designed to be comprehensive yet flexible. Every Common Core State Standard for mathematics is covered in the Fishtank curriculum, with a focus on the major work of each grade and a thoughtful vertical progression embedded from course to course. Teachers are provided with a flexible lesson structure that gives

them the content and tools they need to make the decisions that are right for their students. Lastly, we designed the curriculum to be standards-based and content-rich. This means you can be sure students have access to and practice with standards-aligned problems that are engaging, accessible, and supportive of productive struggle.

Anchoring standards-aligned, content-rich tasks

We believe that the content of a curriculum plays a critical role in student learning, and this content must not only be standards-aligned but also rich in a way that engages all students in multiple layers of understanding.

Communicating mathematical understanding

We believe that providing students with opportunities to communicate and discuss their thinking improves student understanding, provides teachers with useful information to inform instruction, and shifts power away from teachers being the possessors of knowledge to students being the constructors of it.

Valuing the Process of Learning

We believe that learning is a process and must be valued in classrooms. We believe the focus should not be on just getting the right answer, but rather on students developing their mathematical toolkit and conceptual understanding.

Monitoring Student Progress

We believe that monitoring student progress through various kinds of assessment is an integral part of a curriculum that informs teachers' instructional decisions and students' metacognition.

Honoring Teacher Expertise

We believe teachers bring their expertise to their classrooms, and that providing them with a strong curriculum with the resources they need to make decisions for their students will help drive student learning.

FEATURES OF FISHTANK MATH CURRICULUM

The Fishtank Math curriculum is designed to be taught over the course of a single school year. Each grade-level course includes seven or eight units of study with 10-25 lessons in each unit. For each course, teachers can access a **course summary** which explains the reasoning behind the ordering of the units, a **standards map** which indicates how the

grade-level standards are covered across the units, and a **pacing guide** which provides a high-level view of how units can be scheduled throughout the year.

At the unit level, a **unit summary** describes the main focus of the unit along with connections to prior and future work. Teachers are able to access the **post-unit assessment** for the unit, a navigable **lesson map** which provides a high-level overview of the objectives and standards as they are organized in the unit, and the grade-level **standards** covered, as well as a list of foundational standards that connect and relate to the content in the unit.

Each Fishtank Math lesson includes components that work together to support teachers in making a rich lesson plan that fits the needs of their students. These components include:

- A **lesson objective**, which is an appropriately sized learning goal for students that connects to at least one standard or cluster in the unit;
- A list of **standards** that are the focus of the lesson as well as any foundational standards that students need to recall in order to be successful with the content of the lesson;
- **Criteria for Success**, which are smaller learning goals that students must demonstrate or understand in order to achieve the objective;
- **Tips for Teachers**, which include suggestions to support teachers' understanding and implementation of the lesson, such as suggestions on pacing, guidance on potential misconceptions students may have with the content, and other important notes;
- Two to three **Anchor Problems** to guide students in making sense of the mathematics of the lesson as outlined in the Criteria for Success and lesson objective;
- A set of **guiding questions** for each Anchor Problem, which teachers can use to scaffold or extend the problem based on student needs;
- **Problem Set guidance**, a list of resources for practice problems aligned to the lesson objective, which can be used for independent practice in class or as homework; and
- A **Target Task**, a problem or set of problems aligned to the lesson objective.

The Teacher Tool Library includes resources to support implementation of Fishtank Math. Available for free to all account holders are Preparing to Teach a Math Unit, Internalizing a Math Lesson, and Components of a Math Lesson.

For more information on adopting Fishtank Learning mathematics curriculum in your school or district please contact us at contact@fishtanklearning.org.