



Where learning takes flight

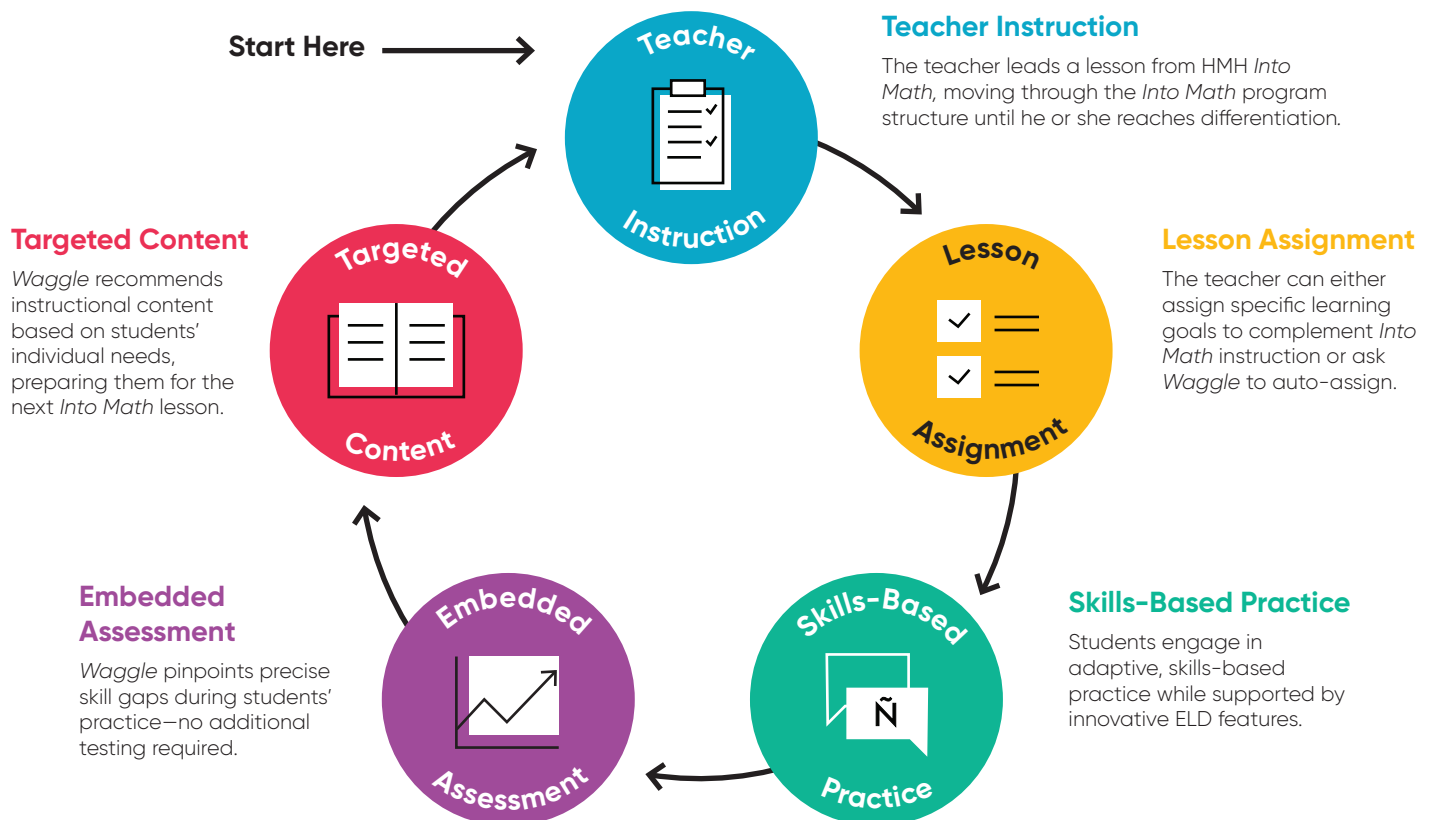




Engage in a connected teacher and student experience.

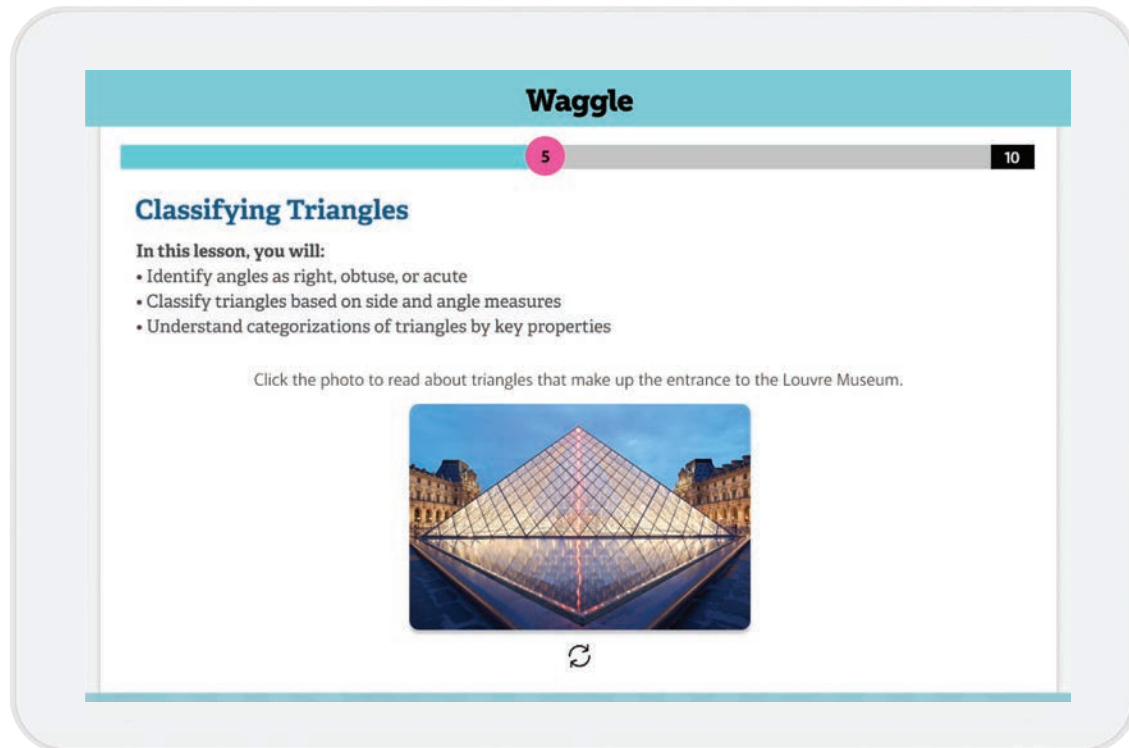
Waggle® for ELA and math goes beyond adaptive learning to truly **personalize** practice and instruction—complementing *Into Math*™ to support students at all proficiency levels.

Unlike other programs, *Waggle* keeps the teacher in control. Teachers can either manually assign relevant content or ask *Waggle* to auto-assign lessons, enabling educators to maximize their time in and out of the classroom.

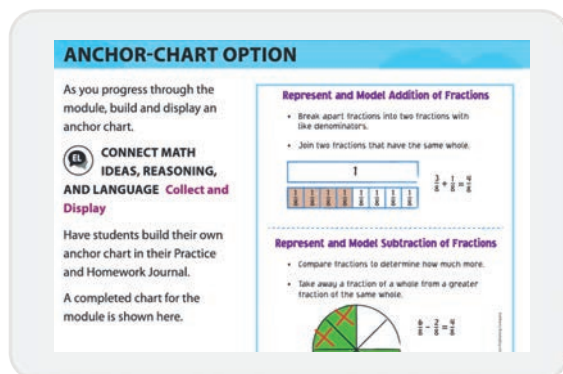




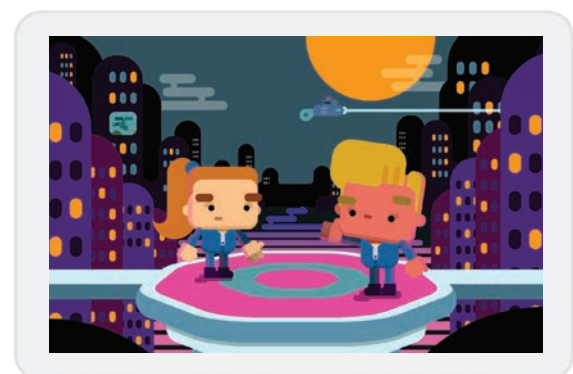
Create fearless problem solvers with the skills to face 21st-century challenges.



Into Math provides teachers with flexible instructional options. *Waggle's* personalized practice and lessons reinforce key skills taught in *Into Math*. The lesson shown above guides students through classifying triangles using the Louvre architecture as a real-world example.



Into Math's anchor charts support students as they work through a process.



Waggle's interactive videos and student-centered avatars engage students in the types of content they crave.

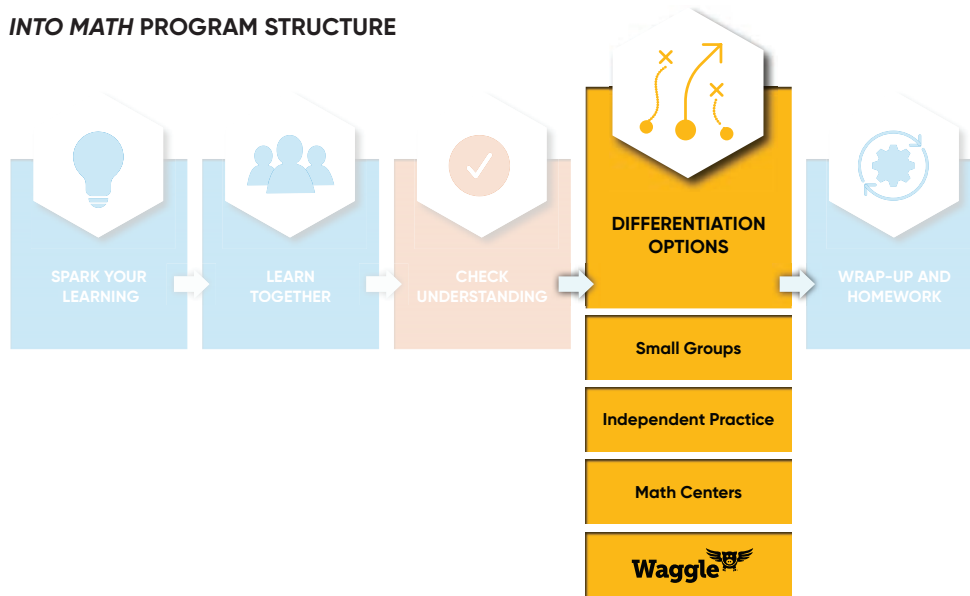


Teacher-Driven, Student-Centered Personalized Learning

Into Math with *Waggle* combines student-centered instruction with powerful personalization, immersing students in rigorous, skills-based practice that assesses knowledge in real time.

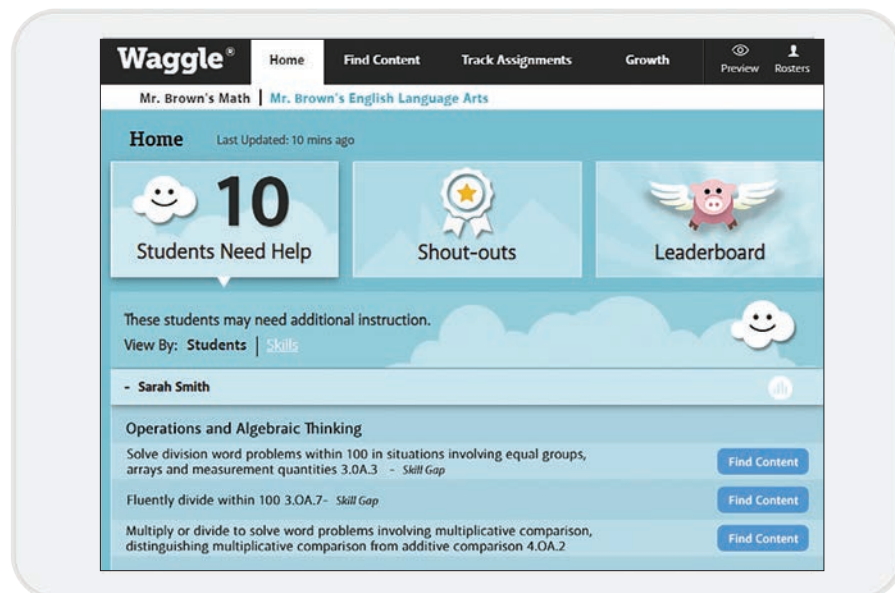
Waggle supports the *Into Math* lesson plan, providing a digital option for online, skills-based differentiation.

INTO MATH PROGRAM STRUCTURE



Actionable Insights That Build Connections between Teachers and Students

Teachers can view individual students' skill gaps or view groupings of students who share the same skill gaps. This empowers teachers and students to have focused and meaningful conversations about proficiency.

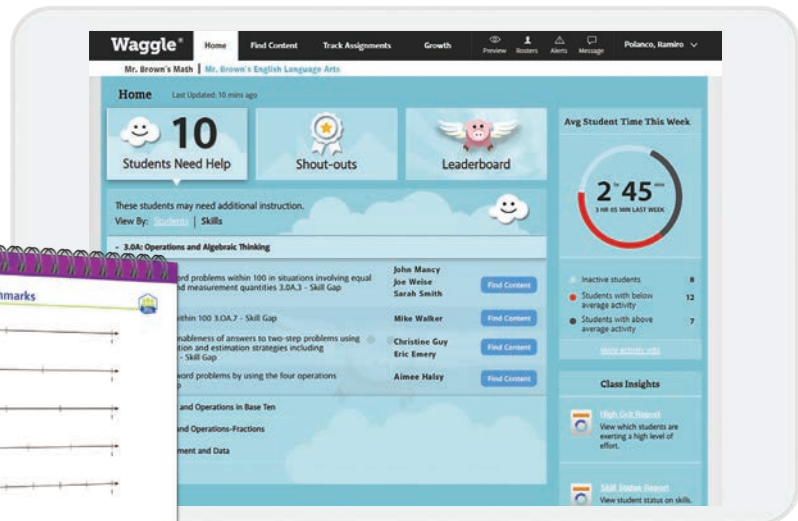
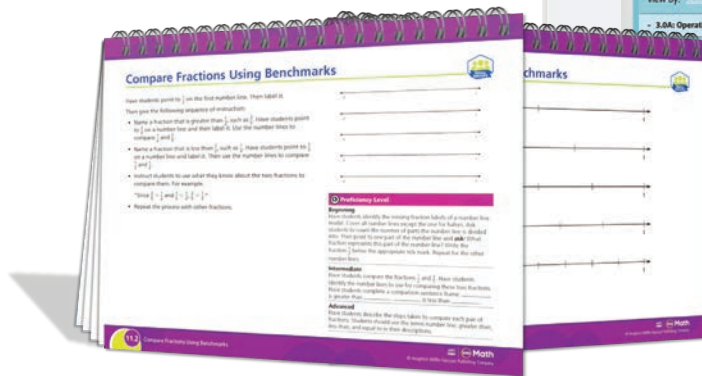




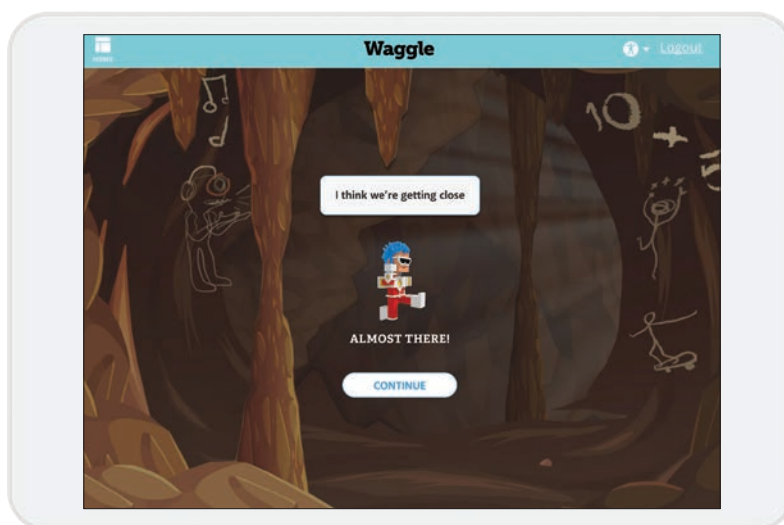
Skills-Based Differentiation and Real-Time Assessment

Whether you need to differentiate at the individual or small-group level, *Into Math* with Waggle puts the right tools at your fingertips. Waggle's actionable data insights pinpoint precise skill gaps in real time, assessing students' knowledge without requiring a diagnostic or summative test.

Waggle's skill-based student groupings maximize *Into Math*'s differentiated lesson options.



Into Math with Waggle provides both traditional and digital practice and instruction.



Students receive ongoing encouragement.

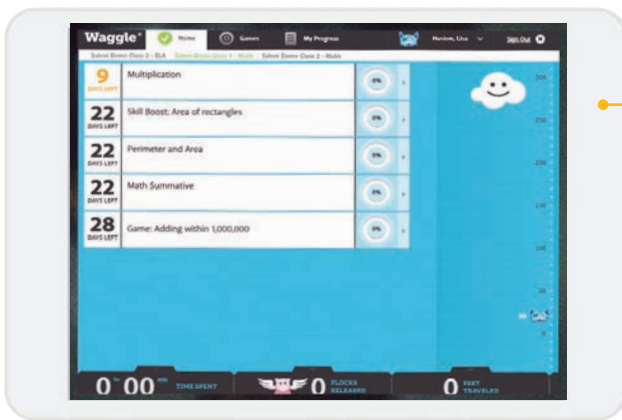
Growth Mindset

Spark genuine curiosity in mathematics! *Into Math* with Waggle features embedded mindset tasks that **emphasize effort** to ignite a love of learning. Students' learning takes flight with reflection questions, rewards for resilience, and rigorous practice in their zones of proximal development.

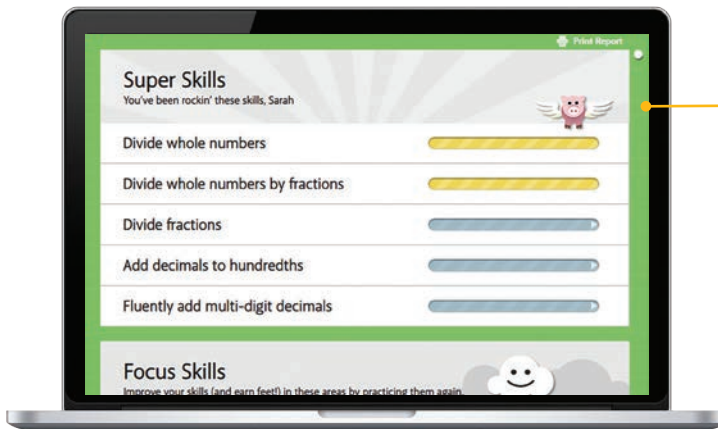
How do Waggle and Into Math work



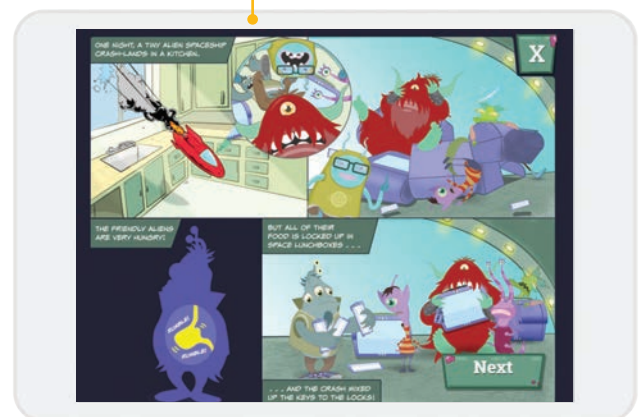
Waggle goes beyond adaptive learning to truly personalize practice and instruction—complementing *Into Math* to support students at all proficiency levels. Supplemental practice and instruction plus formative assessment combine with trusted HMH® content to empower teachers with real-time actionable insights.



This teacher has assigned a game, several adaptive learning goals, and a Skill Boost to support his students' understanding of *Into Math*'s "Solve Problems with Area" lesson.



Students can track their skills and standards, empowering them to own their progress and celebrate their successes!



Waggle's math games reinforce foundational skills and provide fact fluency practice—and a lot of fun!

2.4

Solve Problems with Area

LESSON FOCUS AND COHERENCE

Mathematics Standards

■ Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems. Represent whole-number products as rectangular areas in mathematical reasoning.

Mathematical Practices and Processes

• Reason abstractly and quantitatively.

I Can Objective

I can multiply side lengths to find the area of a rectangle and solve real-world problems.

Mathematical Progressions

Prior Learning	Current D
Students: <ul style="list-style-type: none"> partitioned a rectangle into rows and columns of same-sized squares and counted to find the total number of them. (Gr2, 22.1) 	Students: <ul style="list-style-type: none"> multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems. represent whole-number products as rectangular areas in mathematical reasoning.

UNPACKING MATH STANDARDS

Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

What It Means to You

In this lesson, students will work to find the area of a rectangle with side lengths that are not whole numbers. This is an abstract representation of being represented with unit squares. This is an abstract representation of students using their prior learning about how unit squares are used to find the area of a rectangle to help find the area of these rectangles. This will build toward multiplication as an operation to find the areas of the rectangles.

Understanding that multiplication can be used to find the area of a rectangle with side lengths that are not whole numbers can help students in the future when they use area models with greater numbers.

together to drive skills growth?

Find Area

Connect Concepts and Skills

Major Supporting Additional

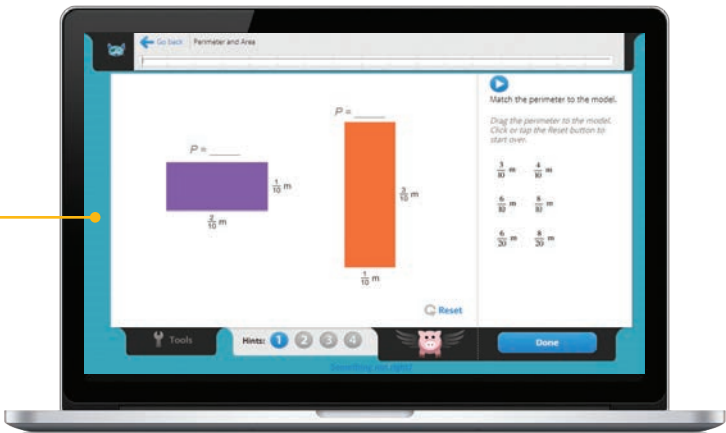
Learning Objective
Solve real-world problems by finding areas of rectangles.

Language Objective
Write and solve a real-world problem about finding the area of a rectangle.

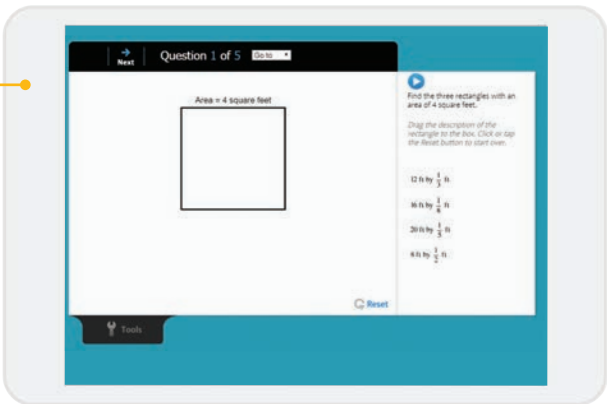
Lesson Materials: square tiles, 1-Inch Grid Paper (Teacher Resource Masters)

Development	Future Connections
Students will find areas of rectangles with whole-number side lengths by counting unit squares or by multiplying side lengths. They will solve real-world problems involving area.	Students: <ul style="list-style-type: none">will apply the area and perimeter formulas for rectangles in real world and mathematical problems. (Gr4, 2.5 and 9.1-9.4)

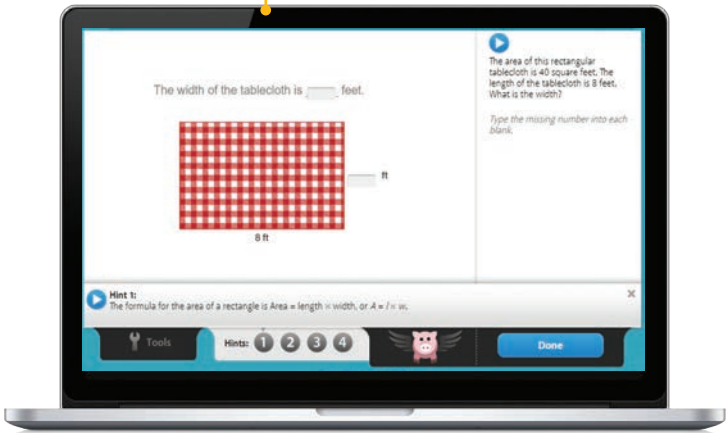
Lesson 2.4 47A



Waggle's learning goals adapt in real time to provide students with relevant content in their zone of proximal development.



This Waggle exercise supports students' understanding of angles and aligns with the Learning Objective for this module of Into Math.



Waggle's Skill Boosts provide quick checks for understanding that can be used before or after the lesson.

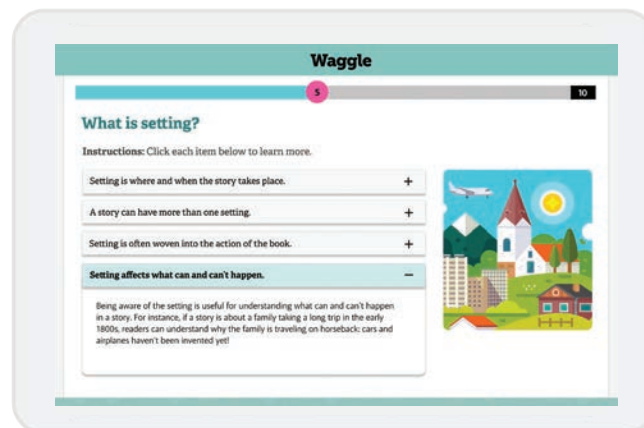


Robust and Inclusive Instructional Support

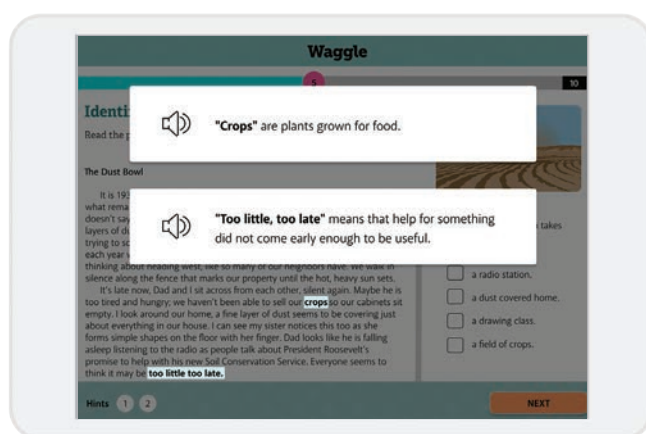
Powerful Personalization

Many programs claim to provide personalized practice, but only *Waggle* dynamically adapts to students' knowledge in **real time**.

Go beyond a pretest and posttest to assess students' skills proficiency *during* practice.



Teachers retain control over the class's pace while students engage in relevant practice within their zones of proximal development.



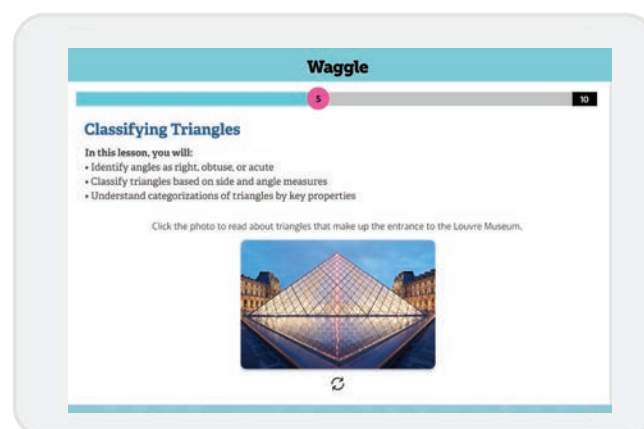
Scaffolds in skills practice use **translanguaging** strategies to leverage students' primary language knowledge to build metalinguistic awareness.

English Learner Support

Waggle provides robust support to English learners, including tools to access challenging language and terms. Idioms, cognates, cultural references, and more are called out in text and audio to **support EL students**.

Digital and Printable Lessons

Some days lend themselves to digital, while others provide the perfect forum for paper and pencil. That's why *Waggle* includes printable lessons that support your learning goals. It's your classroom—lead it your way!



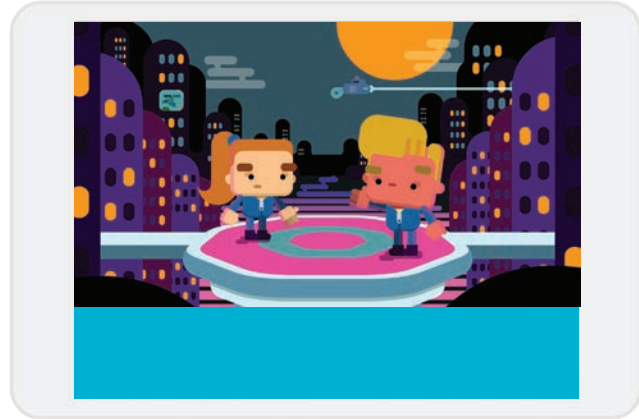
Waggle dynamically measures students' proficiency without testing.



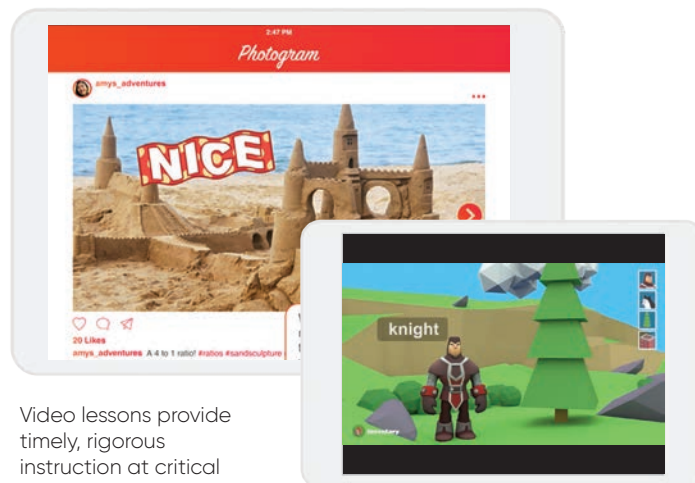
An Empowering & Enriching Student Experience

Multimedia Experiences

Learning isn't one size fits all, and neither is *Waggle*. Students engage in rich multimedia experiences and encounter a wide variety of item types—ideal practice for **online high-stakes testing**.



Multimedia experiences enhance learning.



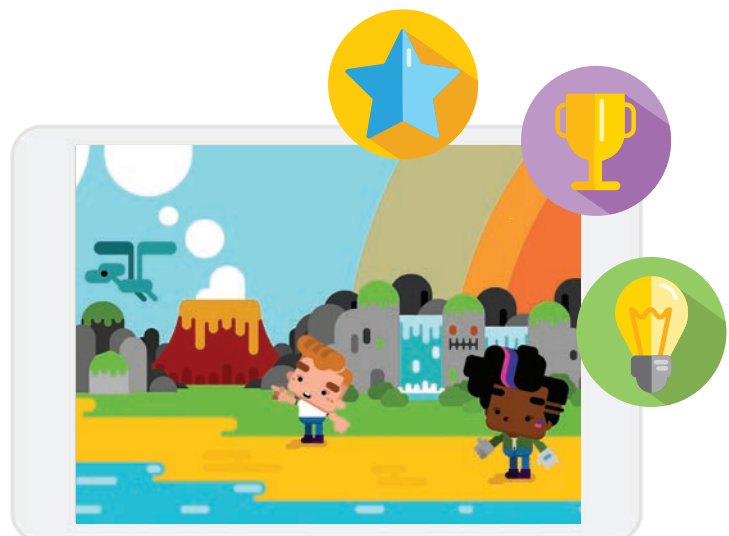
Video lessons provide timely, rigorous instruction at critical learning moments.

Acceleration through Personalization

Waggle's precise personalization keeps students engaged in their zones of proximal development. The result? The feeling of "I'm almost there" propels students towards mastering new skills.

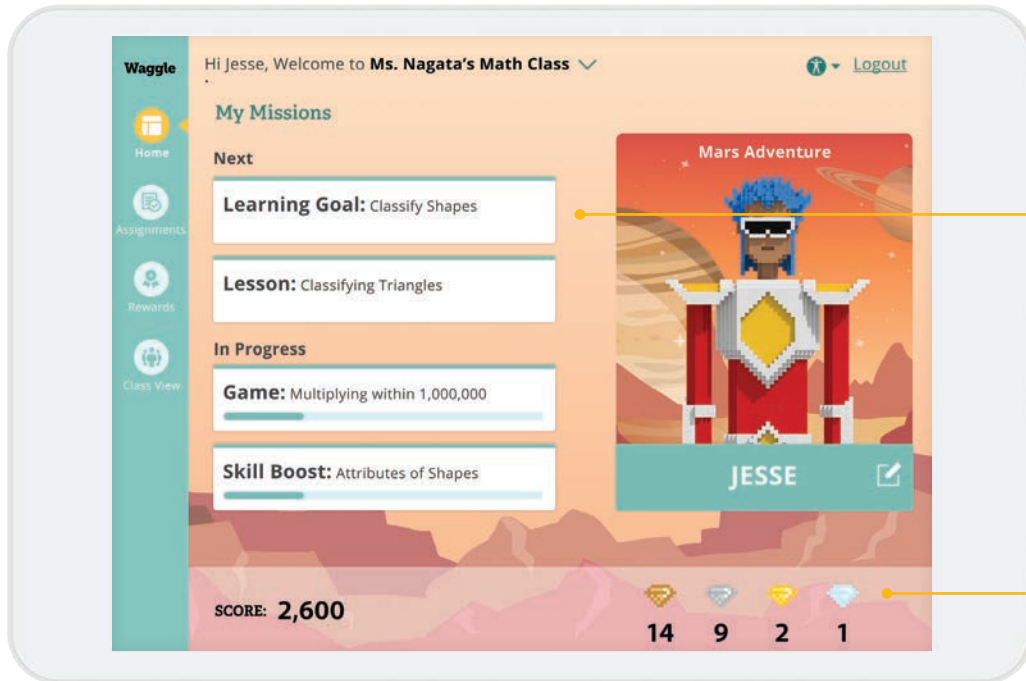
Reward Proficiency & Promote Resilience

Waggle understands that many students have yet to hit their academic stride, and rewarding students for demonstrating positive learning behaviors will drive future success. Promoting and **rewarding resilience** builds a growth mindset and gives even striving learners the opportunity to succeed.



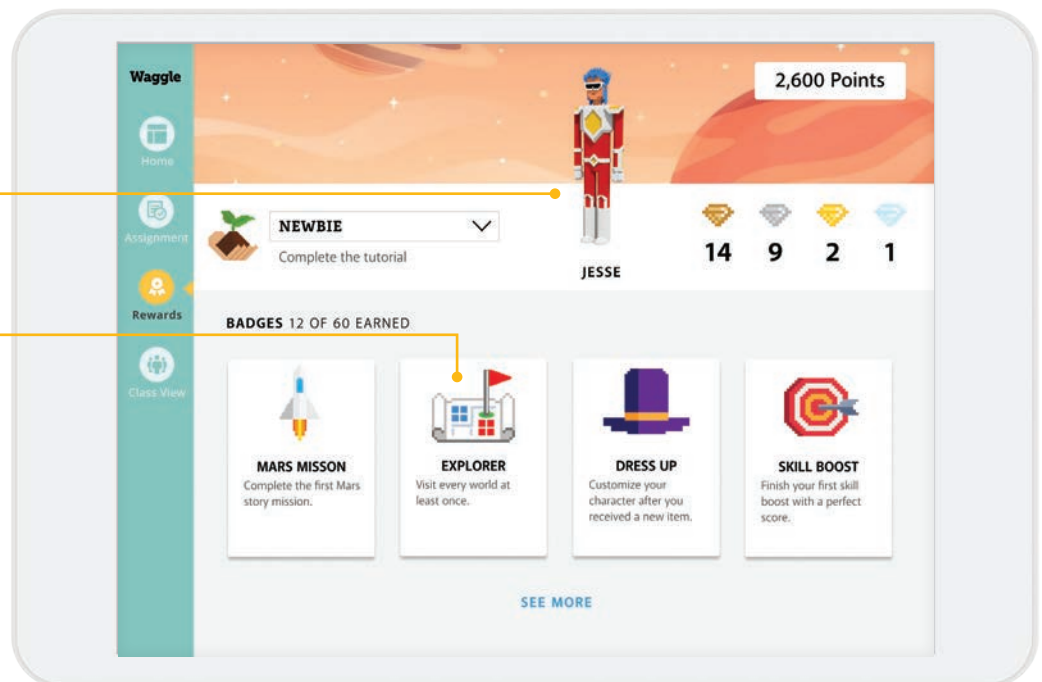
Reward proficiency and resilience.

Unlock student achievement via student agency, ownership, and identity.



The Student Dashboard gives students immediate insight into their progress, rewards, and goals.

Students have the opportunity to make a variety of choices throughout *Waggle*, from selecting their avatar to choosing which worlds to explore. These are a few of the small ways in which students invest in their *Waggle* success on a daily basis.



Achieve successful implementation with professional learning support.

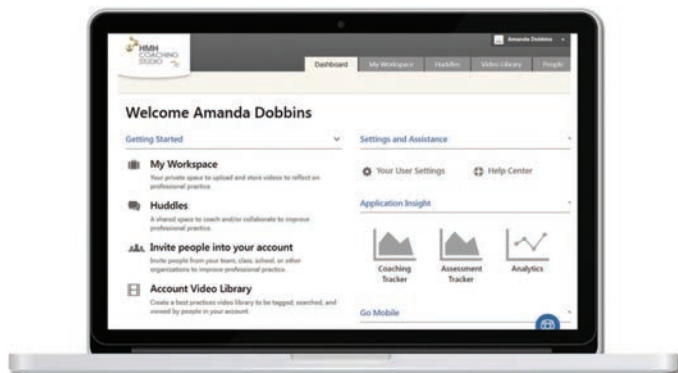
A Getting Started with *Into Math* and *Waggle* course supports teachers like you from the start. Throughout the first year of your implementation and beyond, a combination of in-person and online support is available to help you ramp up quickly and efficiently.

Coaching for Individuals and Teams

Job-embedded instructional coaching, which includes lesson modeling, furthers your implementation and ensures sustainable, data-driven results.

Our blended coaching model includes in-person visits, and live, online sessions with your *Math Solutions*® coach. It includes access to the HMH Coaching Studio platform where you'll:

- Set and track progress on your goals
- Stay connected with your coach in between visits
- Upload your own resources
- Record video of your teaching for self-reflection or sharing
- Access a library of on-demand lesson-modeling videos



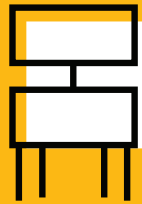
//CODiE//
2019 SIIA CODiE FINALIST

 **Math Solutions.**
FOUNDED BY MARILYN BURNS
From Houghton Mifflin Harcourt.

Our blended coaching was a CODiE® finalist.
Start your trial at **hmhco.com/coaching**.



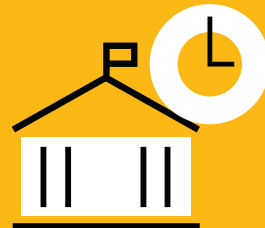
Where learning takes flight



Flexible



Actionable



Connected

Be the first to explore this award-winning solution at
hmhco.com/waggle



//CODiE//
2016 SIIA CODiE FINALIST



CODiE is a registered trademark of the Software and Information Industry Association. ISTE is a registered trademark of International Society for Technology in Education, Inc. Math Solutions®, Into Math®, Waggle®, Houghton Mifflin Harcourt®, HMH®, and The Learning Company™ are trademarks or registered trademarks of Houghton Mifflin Harcourt. © Houghton Mifflin Harcourt. All rights reserved. Printed in the U.S.A. 02/20 WF1061654 Z-1790947



Houghton Mifflin Harcourt.
The Learning Company™

hmhco.com