

# Waggle

Where learning takes flight

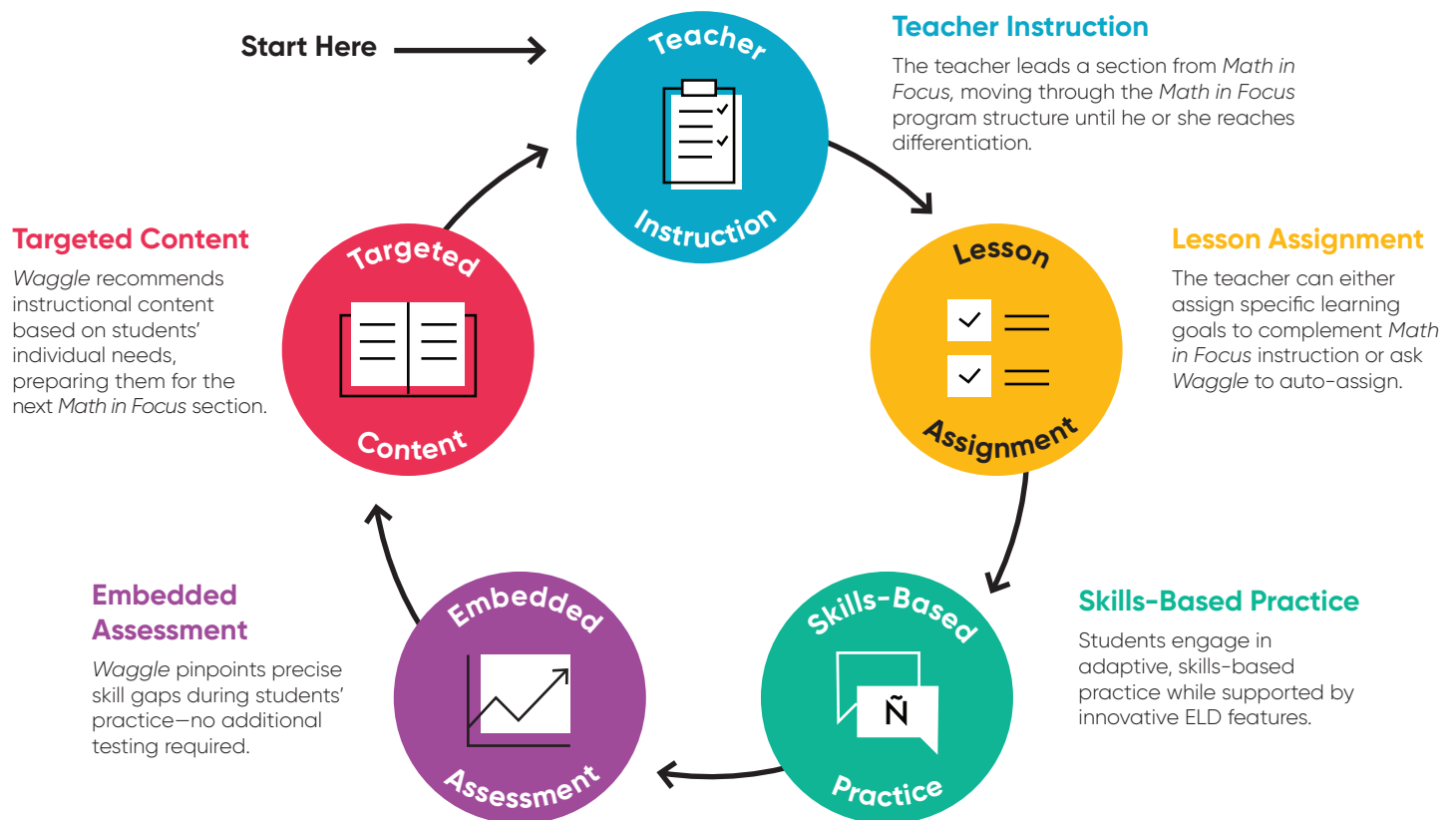




# Engage in a connected teacher and student experience

**Waggle**® for ELA and math goes beyond adaptive learning to truly **personalize** practice and instruction—complementing *Math in Focus*®: *Singapore Math*® by Marshall Cavendish® to support students at all proficiency levels.

*Waggle* provides the flexibility to support a wide range of teaching styles. 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 21<sup>st</sup>-century challenges

**Waggle** i LOGOUT →

Lesson **1** 2 3 4 5 6 7 8 9 Skill Check 1 2 3 4 5

## Proportional Relationships

**In this lesson, you will:**

- Determine if a relationship is proportional.
- Identify equivalent ratios and constant rates of change.
- Represent proportional relationships using tables, graphs, and ordered pairs.

Click the photo for more about how scientists are working to make cell phone batteries last longer.

*Math in Focus* provides teachers with a pedagogy that emphasizes the concrete–pictorial–abstract approach and conceptual understanding that leads to student mastery. *Waggle's* personalized practice and lessons reinforce key skills taught in *Math in Focus*. The lesson shown above guides students through proportional relationships using a real-world example.

**PROJECT WORK**

**STEAM**

**Domestic Migration**

Birds, butterflies, and other animals are not the only living things that migrate, or move from one geographic location to another. People migrate, too. The U.S. Census Bureau collects and analyzes data to determine how state populations change from year to year.

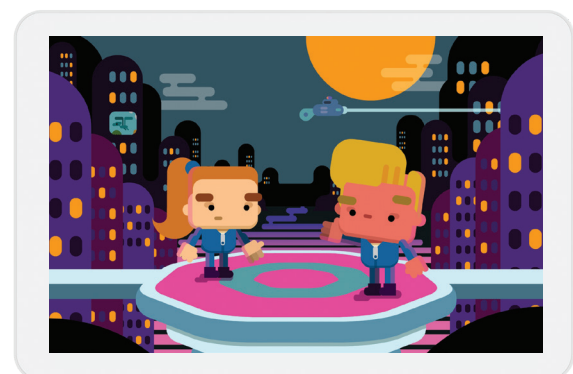
**Task**

Work in pairs or small groups to investigate domestic migration within the United States.

- 1 Search the U.S. Census Bureau to find the most recent report of percent changes in population for the 50 states.
- 2 Construct two graphs, one to display ten states experiencing the greatest percent of population change and one to display ten states experiencing the least percent of population change.
- 3 Continue your research to learn more about how domestic migration is affecting your state. Use art materials or digital tools to create an infographic illustrating the impact of population change in your state. For example, how have population changes

**MIGRATION**  
Straight Ahead ↑↑

To ground their learning in real-world problems, *Math in Focus* students engage in STEAM Project Work that promotes critical and creative thinking.



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

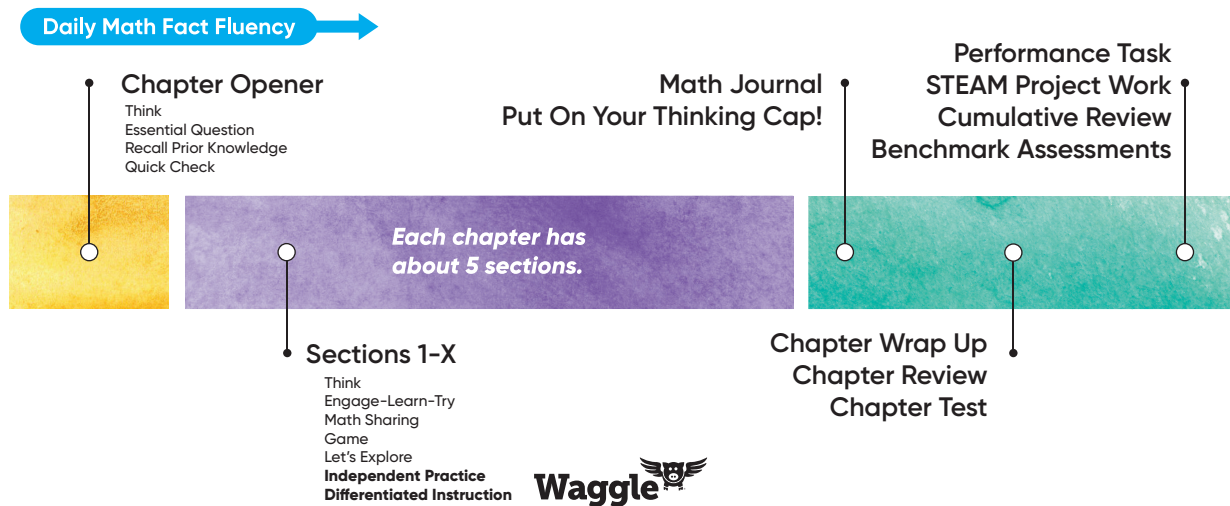


# Flexible, Insightful Personalized Learning

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

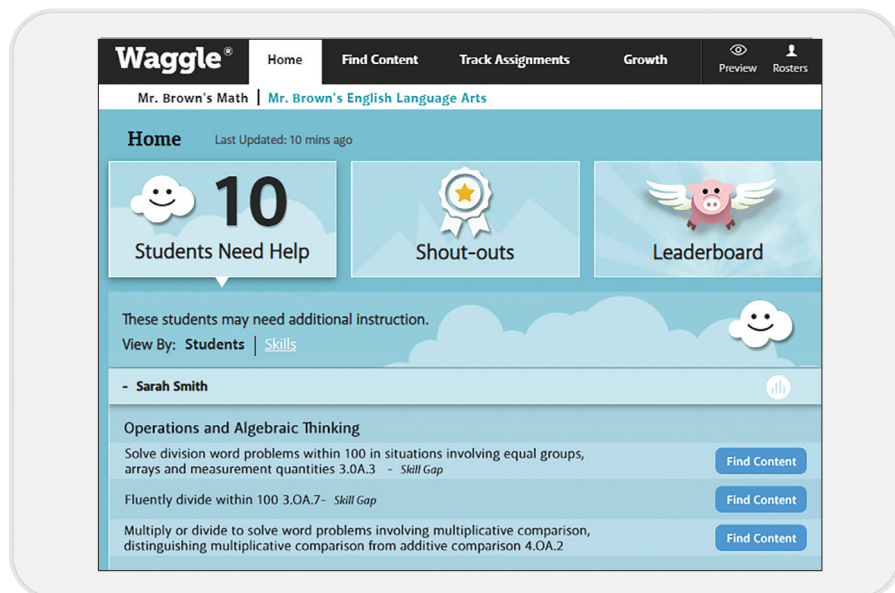
*Waggle* supports the *Math in Focus* program structure, providing a digital option for online, skills-based differentiation.

## MATH IN FOCUS 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.

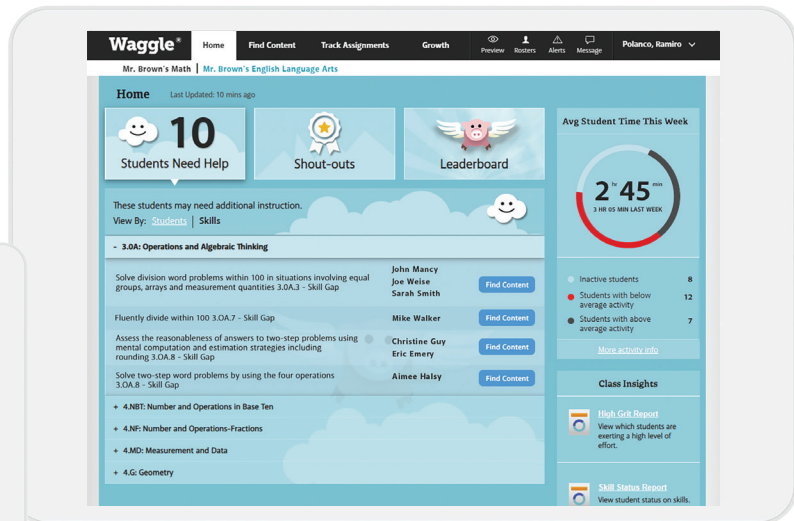
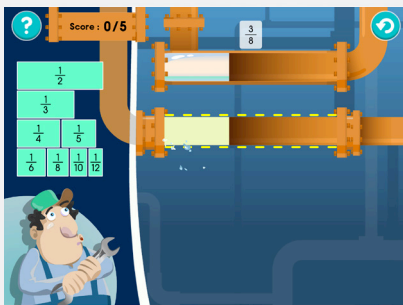




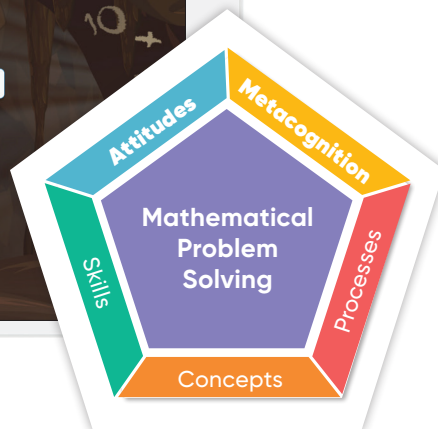
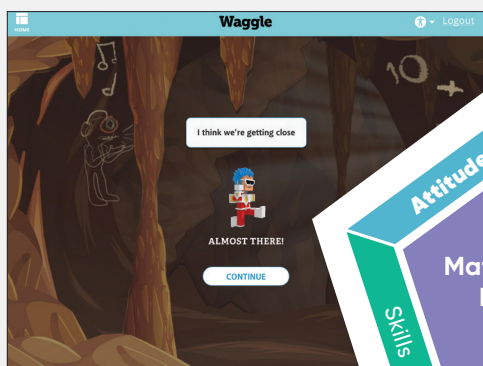
# Skills-Based Differentiation and Real-Time Assessment

Whether you need to differentiate at the individual or small-group level, *Math in Focus 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 *Math in Focus's* differentiated lesson options.



*Math in Focus with Waggle* provides both traditional and digital practice and instruction.



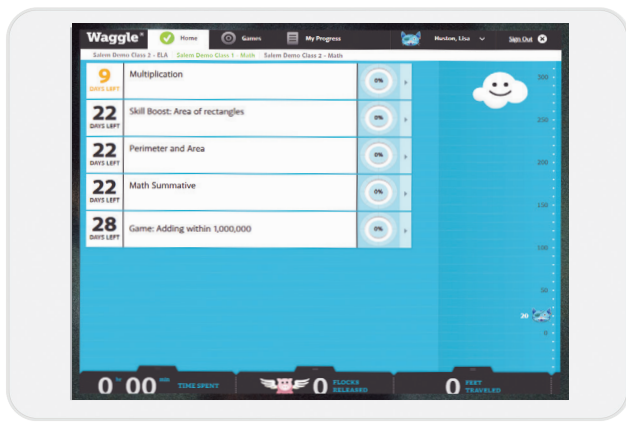
## Ongoing Encouragement

*Math in Focus* places a strong emphasis on "attitudes to learning" and "metacognition", found in the Math Talk, Math Sharing, and Math Journal opportunities. In addition, *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.

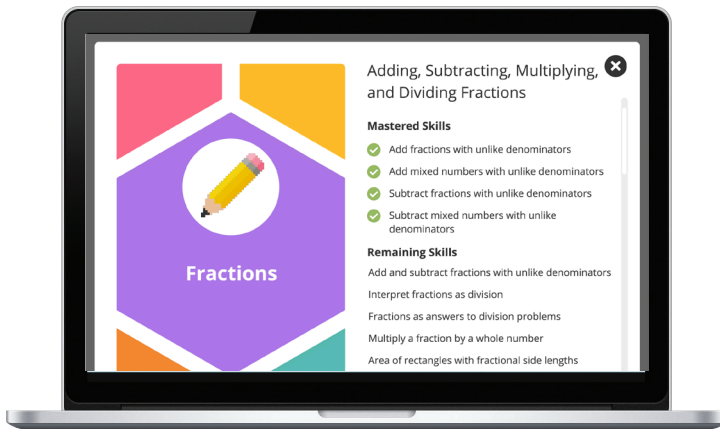
# How do Waggle and Math in Focus

Waggle goes beyond adaptive practice to complement the *Math in Focus* solution in supporting students at all proficiency levels.

Supplemental practice and instruction plus formative assessment combine with trusted content to empower teachers with real-time actionable insights.

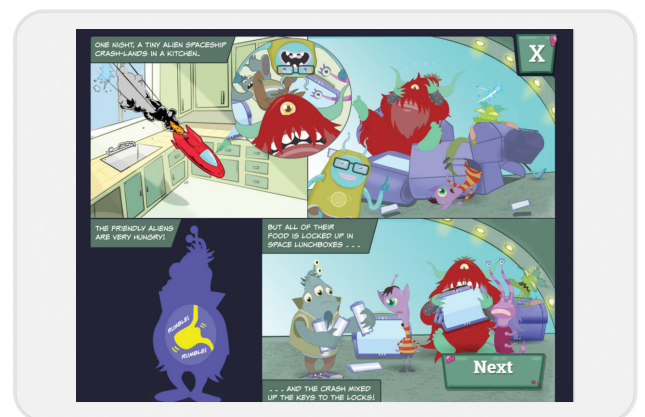


A teacher has assigned a game, several adaptive learning goals, and a Skill Boost to support his or her students' understanding of the *Math in Focus* "Classifying Triangles" section.



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

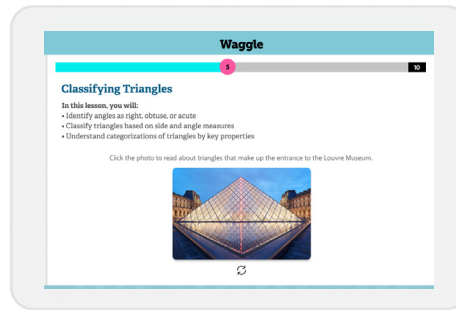
Chapter Planning Guide		
<b>Total pacing:</b> 8 days	<b>Chapter Opener, Recall Prior Knowledge</b> Pages 119 – 122 Pacing: 1 day	1 C
<b>Pacing</b>	DAY 1 of 8	DAY 2 of 8
<b>Learning Objectives</b>	<ul style="list-style-type: none"> <li>What properties can we use to identify triangles?</li> <li>How can we classify polygons using a hierarchy?</li> <li>Review related concepts from previous chapters or grades.</li> </ul>	<ul style="list-style-type: none"> <li>Identify scalene triangles</li> </ul>
<b>New Vocabulary</b>		equilateral scalene triangles
<b>Materials</b>		
<b>Lesson Resources</b>	<ul style="list-style-type: none"> <li>Student Edition 5B, pp. 119 – 122</li> </ul>	<ul style="list-style-type: none"> <li>Student</li> <li>Extra Practice Activity 1</li> <li>Reteach</li> <li>Enrichment</li> </ul>
<b>Mathematical Habits</b>	<ul style="list-style-type: none"> <li>1 Persevere in solving problems</li> <li>4 Use mathematical models</li> </ul>	<ul style="list-style-type: none"> <li>2 Use mathematical models</li> </ul>
<b>Standards for Mathematical Content</b>		<ul style="list-style-type: none"> <li>5.G.3 Understand that a two-dimensional shape is composed of line segments of different lengths</li> </ul>
<b>Fact Fluency</b>		Apply and extend understanding of multiplication and division to solve problems involving whole numbers



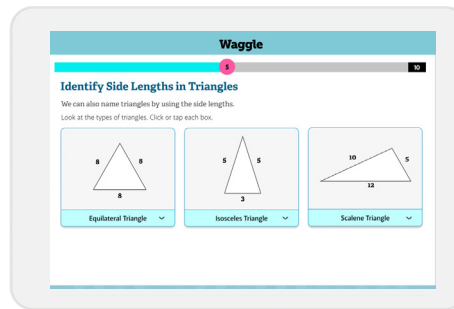
Waggle's math games reinforce foundational skills and provide additional fact fluency practice—and a lot of fun!

# work together to drive skills growth?

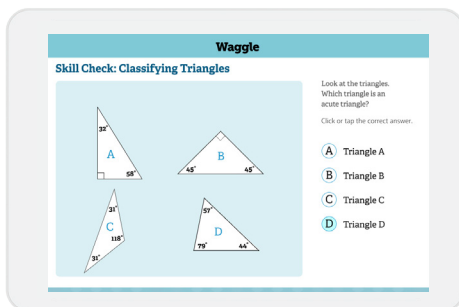
Classifying Triangles	
Pages 123 – 130 Duration: 2 days	<b>DAY 3 of 8</b>
Isosceles, equilateral, and right triangles.	<ul style="list-style-type: none"> <li>Classify triangles by their side lengths and angle measures.</li> </ul>
Triangle, isosceles triangle, right triangle.	
Student Edition 5B, pp. 123 – 124 Extra Practice and Homework 5B, Activity 1 5, Activity 1 Enrichment 5, Activity 1	<ul style="list-style-type: none"> <li>Student Edition 5B, pp. 125 – 130</li> <li>Extra Practice and Homework 5B, Activity 1</li> <li>Reteach 5, Activity 1</li> <li>Enrichment 5, Activity 1</li> </ul>
Mathematical reasoning	<ul style="list-style-type: none"> <li>2 Use mathematical reasoning</li> <li>6 Use precise mathematical language</li> <li>7 Make use of structure</li> </ul>
Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	<ul style="list-style-type: none"> <li>5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.</li> </ul>
Build Knowledge, p. 67	Apply and Build Knowledge, p. 68 Fact Builder, p. 69



Waggle Learning Goals adapt in real time to provide students with relevant content in their zone of proximal development. This activity uses a real world example, the Louvre, to bring content to life.



This Waggle exercise supports students' understanding of classification of triangles and aligns with the Learning Objectives for this section of *Math in Focus*.



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



# Robust and Inclusive Instructional Support

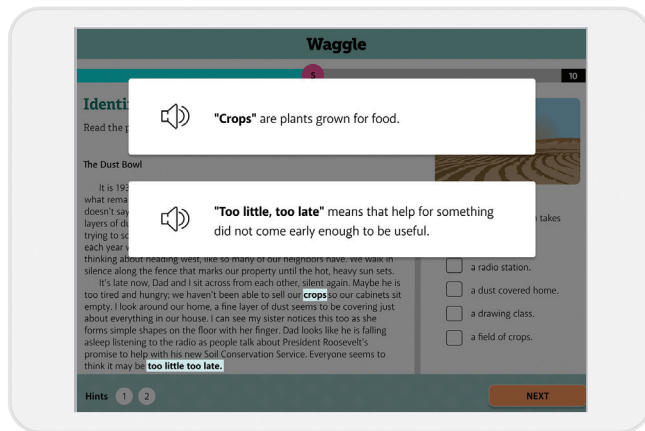
## Powerful Personalization

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

Go beyond a pretests and posttests 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.



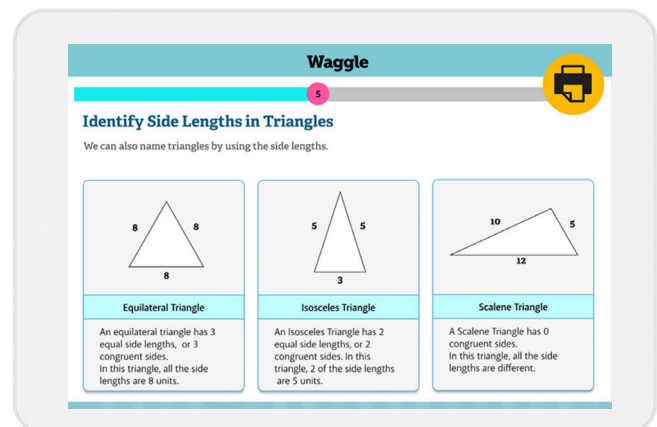
Scaffolds in skills practice use **translanguaging** strategies to leverage students' primary language knowledge to build metalinguistic awareness.

## 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.

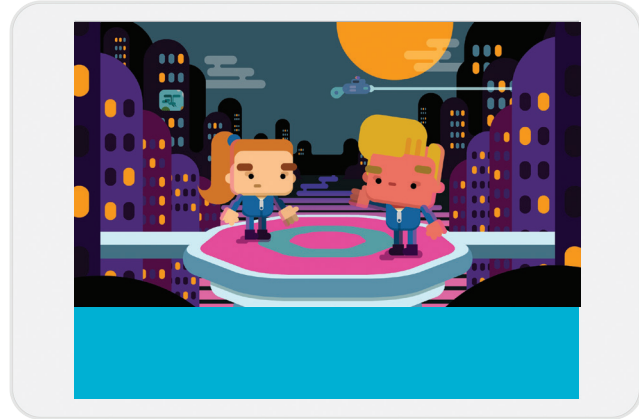




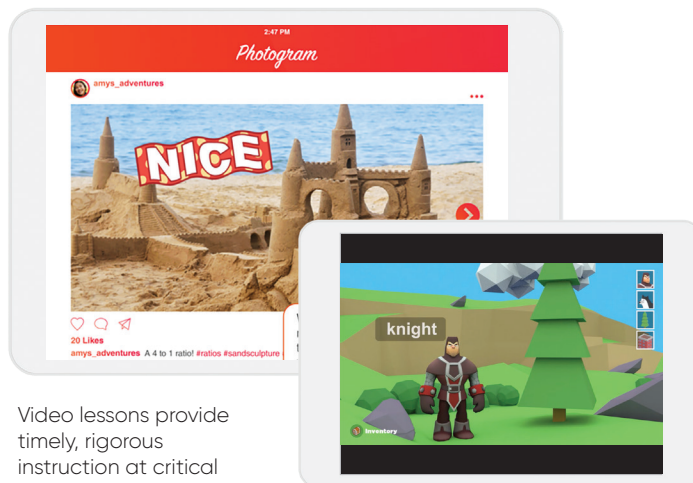
# An Empowering & Enriching Student Experience

## 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.



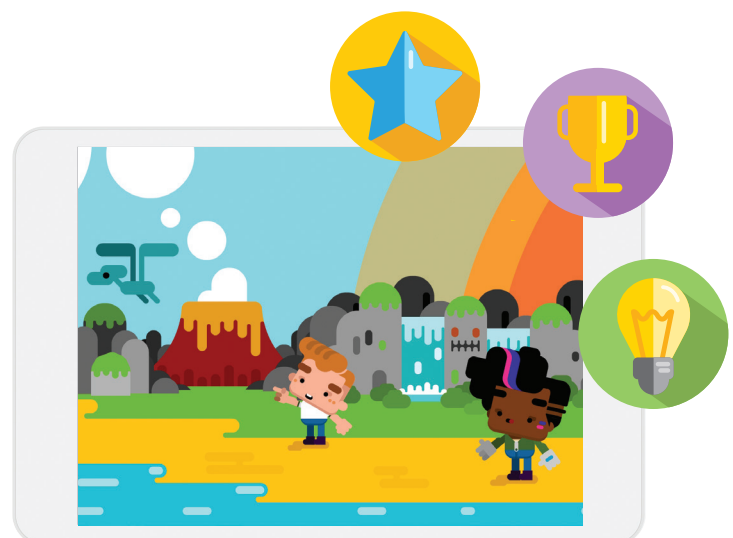
Video lessons provide timely, rigorous instruction at critical learning moments.

## 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 toward mastering new skills.

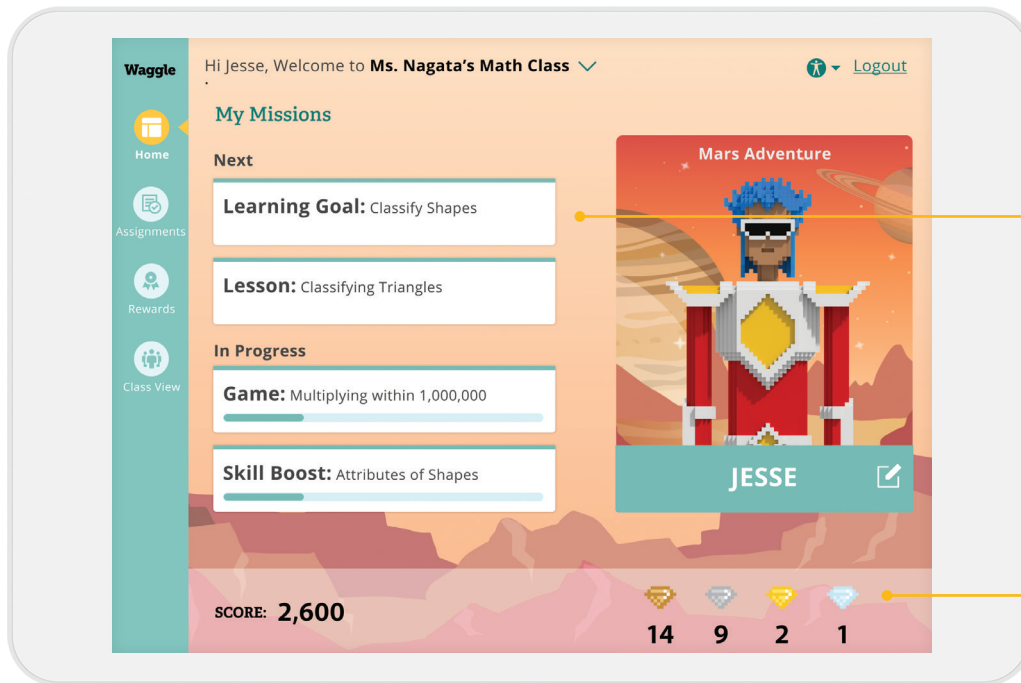
## Reward Proficiency & Promote Resilience

*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.



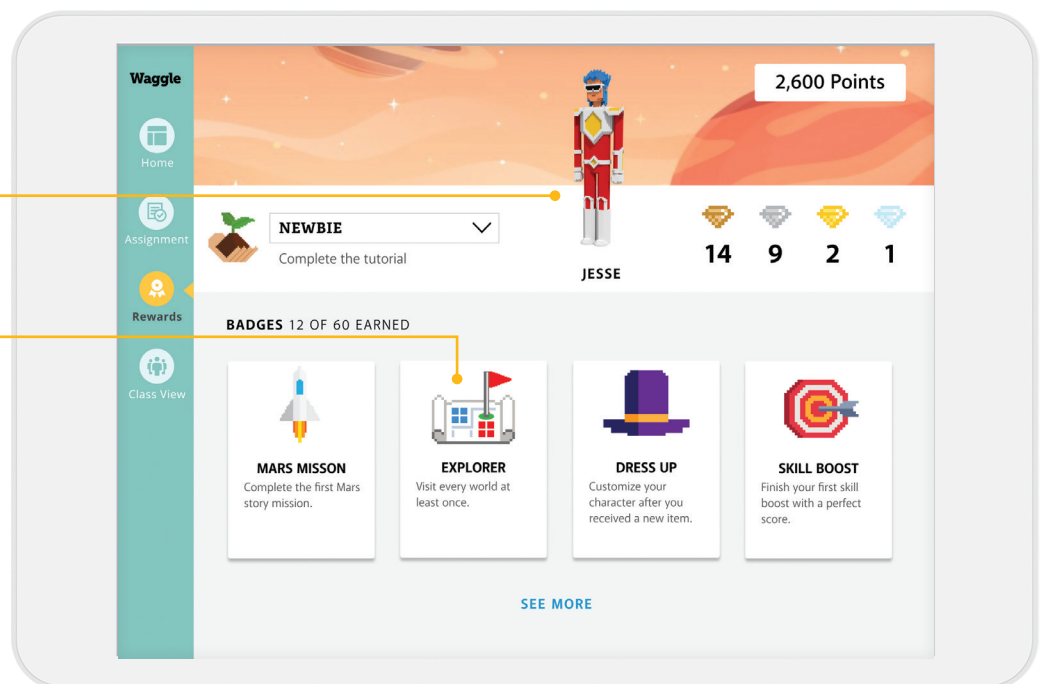
Reward proficiency and resilience.

# 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.

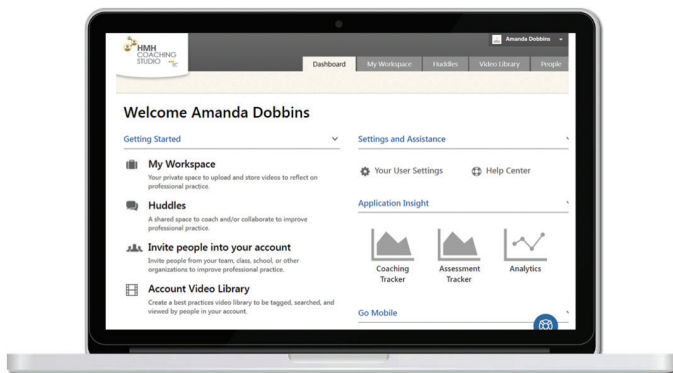
A Getting Started with *Waggle* Math course supports teachers like you from the start. Throughout the first year of your implementation and beyond, a combination of in-person and online support is available to help you ramp up quickly and efficiently.

## 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



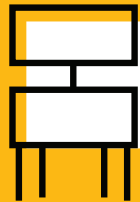
**//CODiE//**  
2019 SIIA CODiE FINALIST

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

Our blended coaching was a CODiE® finalist.  
Start your trial at [hnhco.com/coaching](https://hnhco.com/coaching).



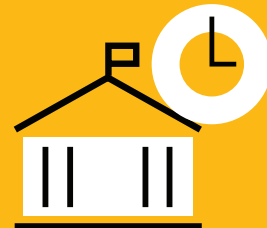
Where learning takes flight



**Flexible**



**Actionable**



**Connected**

Be the first to explore this award-winning solution at  
[hmhco.com/waggle](http://hmhco.com/waggle)



Math in Focus® and Marshall Cavendish® are registered trademarks of Times Publishing Limited. Singapore Math® is a trademark owned by Singapore Math Inc. and Marshall Cavendish Education Pte. Ltd., 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. 04/20 WF1160600



**Houghton Mifflin Harcourt.**  
The Learning Company™

[hmhco.com](http://hmhco.com)