



# K-12 Mathematics

## Adoption Guide Extended

*For additional information (e.g. pricing, copyright, ISBN) and Idaho completed evaluations please contact the curricular materials coordinator.*

Materials in this guide are contracted from 2023-December 31, 2028

### GRADES K-5

#### Houghton Mifflin Harcourt

##### Waggle Math

- **Grade K-2**

- Strengths: The learning videos are engaging and relatable to students. The videos offer good thinking strategies for solving problems.
- Weaknesses: The platform is difficult to use with lots of thinking/spinning time in between screens. All activities were multiple choice. The program moves students on even when wrong answers are selected. There was no reteaching if a wrong choice was selected, students were told to try again. The program is slow for fast thinkers. The vocabulary is lacking – for example instead of true/false, the program has students click thumbs up/down. The dog’s voice changes within the activities from an adult female with a cherry voice to a boy’s voice that sounds bored. The dog says the same encouraging words, “Way to go,” with no variation. The dog repeats between each activity to click the arrow to go on.
- Key Features: Waggle is an online, Tier 1 supplemental resource that engages students in Grades K–8 in interactive practice for math and language arts. Its adaptive technology, differentiated elements, and motivational features make it a great solution for students in need of extra support, those working on grade level, and those ready for additional challenges. Waggle is a fully online resource that students use independently. The math and language arts content of Waggle complements any core, supplemental, or intervention program/curriculum. Waggle is flexible and has many uses—learning center/station rotations, independent learning time, media center sessions, before and after school clubs, homework, summer school, and remote learning. In case studies, students

experienced growth after using the application for an average of 45 minutes, two to three days per week. In general, students use Waggle about three times a week in 20-minute sessions for each subject (math and language arts). Waggle has English and Spanish content.

### Waggle Math

- **Grade 3-5**

- Strengths: Lessons and learning progression are well thought out. Materials are visually pleasing and engaging to children.
- Weaknesses: This program lacks the ability to differentiate learning and fill gaps in learning at the teacher’s discretion.
- Key Features: Waggle is an online, Tier 1 supplemental resource that engages students in Grades K–8 in interactive practice for math and language arts. Its adaptive technology, differentiated elements, and motivational features make it a great solution for students in need of extra support, those working on grade level, and those ready for additional challenges. Waggle is a fully online resource that students use independently. The math and language arts content of Waggle complements any core, supplemental, or intervention program/curriculum. Waggle is flexible and has many uses—learning center/station rotations, independent learning time, media center sessions, before and after school clubs, homework, summer school, and remote learning. In case studies, students experienced growth after using the application for an average of 45 minutes, two to three days per week. In general, students use Waggle about three times a week in 20-minute sessions for each subject (math and language arts). Waggle has English and Spanish content.

### IXL Learning, Inc.

#### IXL Math

- **Grade K-2**

- Strengths:
  - The program is laid out in a way that it is easy to navigate, easy to find a specific skill for students to work on, and to go back and forth between grade levels.
  - There are many activities to work on each skill.
  - Students can get the remediation they need or the advanced lessons to support enrichment.

- Aligned with state standards and specific textbooks to support the specific learning.
  - Teacher can watch all students working live and will get alerts on who needs some teacher intervention. Teachers are notified which students are struggling and which students are idling. Teachers can also send messages to students for support or redirection.
  - The program will read the directions and story problems to students who may need the reading support.
  - Shows the amount of time spent on an activity and the score the student receives on any specific activity.
- Weaknesses: There are no weaknesses evident.
  - Key Features: Whether teaching in class, remotely or in a hybrid model, IXL is the end-to-end learning solution that drives positive student learning outcomes and supports teachers with up-to-date assessments of where students are, insights on where they need help, and actionable next steps to differentiate instruction and accelerate their learning. IXL supports every student to learn independently, at their working level, and at their own pace. With personalized guidance and insightful analytics, students are empowered to take ownership of their learning, making informed choices about what to learn next and tracking their progress towards mastery.

IXL's comprehensive math curriculum is composed of over 4,900 adaptive skills that meet each learner where they are. IXL seamlessly integrates into daily instruction with interactive skill plans custom-built to standards, textbooks, and assessments. IXL also offers tailored skill recommendations for each student to help accelerate their growth.

IXL's adaptive PK-12 math curriculum is comprehensively aligned to the Idaho Content Standards. IXL unpacks each standard into finely scaffolded skills with multiple levels of rigor to help teachers measure student knowledge, pinpoint gaps in understanding, and focus instruction.

## IXL Math

- **Grade 3-5**

- Strengths: The IXL curriculum allows children to work at both above and below the appointed grade level. This program is user-friendly right from the start, making it easy to operate for both students and teachers. It doesn't require professional development to use, making it a great complement to standard math programs that are aligned with IXL skills.

- Weaknesses: It is a digital only platform. Any needs for print resources will not be met.
- Key Features: Whether teaching in class, remotely or in a hybrid model, IXL is the end-to-end learning solution that drives positive student learning outcomes and supports teachers with up-to-date assessments of where students are, insights on where they need help, and actionable next steps to differentiate instruction and accelerate their learning. IXL supports every student to learn independently, at their working level, and at their own pace. With personalized guidance and insightful analytics, students are empowered to take ownership of their learning, making informed choices about what to learn next and tracking their progress towards mastery.

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## Open Up Resources (OUR)

### Our Math

- **Grade K**

- Strengths: This is a completely individual program that is focused on fact fluency for addition, subtraction, multiplication, and division. It is adaptive and supports what the student needs to be successful with their facts. It's free from bias and is presented in a fun and engaging way. The students work to master their facts and are rewarded with tokens to upgrade and modify their avatar. Students can only modify their avatar after completing their daily fact practice.
- Weaknesses: The program is limited to basic fact recall. It doesn't appear that other aspects of fluency are addressed.
- Key Features: ExploreLearning Reflex® is a revolutionary research-based system that enables students of all abilities in grades 2-8 to develop instant, effortless recall of math facts in all four operations.

Key Reflex Features:

- Adaptive and individualized system continuously monitors each student’s performance to create the optimal experience
- Intuitive and powerful reporting gives educators everything they need to easily monitor and support student progress
- Anytime, anywhere access lets students build fluency wherever there is Internet access
- Fun, game-based approach keeps students coming back for more
- Outstanding results show students of all ages and ability levels make great gains

## GRADES 6-8

### Houghton Mifflin Harcourt

#### Waggle Math

- **Grade 6-8**
  - Strengths: The Waggle Math interface for both students and teachers is very intuitive so users can navigate through the platform with not much training. It also includes computation and word problems for each standard. Finally, it is adaptive to each student and automatically assigned skills to each student based on their scores in the HMH Math Growth Measure assessment.
  - Weaknesses: This is a supplemental program that focuses on teaching calculation and word problems. It does not include problem solving tasks or mathematical discourse. It also does not require students to master a concept before they can move ahead in the program. They can move to the next topic after completing all 5 of the application problems even if they are incorrect.
  - Key Features: Waggle is an online, Tier 1 supplemental resource that engages students in Grades K–8 in interactive practice for math and language arts. Its adaptive technology, differentiated elements, and motivational features make it a great solution for students in need of extra support, those working on grade level, and those ready for additional challenges. Waggle is a fully online resource that students use independently. The math and language arts content of Waggle complements any core, supplemental, or intervention program/curriculum. Waggle is flexible and has many uses—learning center/station rotations, independent learning time, media center sessions, before and after school clubs, homework, summer school, and remote learning. In case studies, students experienced growth after using the application for an average of 45 minutes, two to three days per week. In general, students use Waggle about three times a week in 20-minute sessions for each subject (math and language arts). Waggle has English and Spanish content.

## IXL Learning, Inc.

### IXL Math

- **Grade 6-8**

- **Strengths:** IXL covers each standard individually so teachers can target areas of weakness. Students can progress at their own pace and even work on content outside of their grade level when appropriate. Finally, students can self-select within a lesson if they need to move to an easier lesson (if they are struggling) or a more challenging lesson if they have already mastered the content.
- **Weaknesses:** There is an overwhelming amount of choice in content on the student end. Students can choose to work at a level that is inappropriate for their level. For example, an 8<sup>th</sup> grade student can select 1<sup>st</sup> grade content. There is also no progress bar for students within a lesson so it can be difficult for students to persevere through the lesson when they don't know how much longer it will take.
- **Key Features:** Whether teaching in class, remotely or in a hybrid model, IXL is the end-to-end learning solution that drives positive student learning outcomes and supports teachers with up-to-date assessments of where students are, insights on where they need help, and actionable next steps to differentiate instruction and accelerate their learning. IXL supports every student to learn independently, at their working level, and at their own pace. With personalized guidance and insightful analytics, students are empowered to take ownership of their learning, making informed choices about what to learn next and tracking their progress towards mastery.

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## MidSchoolMath

### Core Curriculum

- **Grade 6-8**

- **Strengths:** MidSchoolMath engages students in relevant contexts and problem solving. Students make connections between the content and the real world. It is also designed to be very engaging to middle school students through a variety of videos and different online platforms. The program includes Detailed Lesson Plans and numerous resources to support teacher understanding of the mathematical concepts and instructional strategies.
- **Weaknesses:** The primary weakness is the organization of the Detailed Lesson Plans. Each lesson is covered briefly in the teacher's guide but also has a supplemental lesson plan packet. These packets have great teaching notes but do not include page numbers or other notes to help the teacher know where the students need to be in their materials.
- **Other Notes:** Administrators should be aware that the program includes multiple references to coffee with implication that students will drink coffee. For example, in the second lesson for Ratios and Proportional Relationships, students are determining breakfast rations for a road trip. The (possibly teenage or young adult?) stars of the story problem are looking to ration eggs, coffee, and coffee creamer. (Grade 6 Student Workbook, p. 14). Another example is found in the Grade 7 Coffee Caravan lesson (Student Workbook, p.21). The (possibly teenage or young adult?) stars of the story problem are remembering their dad and that he is the reason they like to drink coffee. They measure their rate of travel in miles per cup of coffee consumed. There are also references to magic. Fairies and the “Forest Ball” are found on p. 216 of the Grade 6 Student Workbook. One lesson is called, “I Dream of Djinni” (Grade 6 Student Workbook, p. 193). The story is about a Caucasian djinni who grants wishes of multiple gold coins to a girl named Kate. This story is used to help students practice whole-number exponents.

There are also references to adult situations. For example, in Grade 7 “Candlelight Dinner” lesson (Student Workbook, p. 4), a woman tells her husband that if he is not home to celebrate their anniversary before the candle burns out, he “can share the couch with their dog, Rodger.” In this lesson, students are using this real-world application problem to calculate unit rates.

- **Key Features:** It was Jo Boaler who first dubbed MidSchoolMath: “A multi-dimensional growth mindset curriculum.” This phrase reflects a number of the deep philosophical underpinnings of MidSchoolMath: that for a curriculum to really impact student learning and promote higher level thinking skills, it needs to engage students in rich purposeful math, with opportunities for students to make sense of problems, and strong visuals. Students also need opportunities to ‘fail’ safely to support a growth mindset, provided with feedback and time for revision. And perhaps most essential, a curriculum that promotes higher level thinking skills needs to have a meaningful answer to the quintessential question asked by every middle school student in the country: “When am I ever going to use this?” The answer Core Curriculum provides for them is a resounding, “right now.”

Core Curriculum creates a “need to know” by launching each lesson within a context where math holds purpose. This is achieved through a combination of high-end film with live actors in contrast to clip art, using state of the art animation and rich narrative problems where the math is both useful and impacts the story. Students naturally become curious and conversational, as they are encountering problems the way we do in life, where not enough information is given at the outset, or too much information is given and we must determine what is important. Just like they would with math problems and higher level mathematics in real life, students must seek and explore the data to find out what is relevant and meaningful to a question, developing higher level thinking skills.

With a perfect score on EdReports, Core Curriculum is a rigorous, standards-aligned comprehensive curriculum option for Grade 6-8 Mathematics.

## **GRADES 9-12**

[IXL Learning, Inc.](#)

**IXL Math**

- **Grade 9-12**

- **Strengths:** Diagnostic tools help pinpoint a student’s knowledge and support grouping of students at the same level. Teachers can use the diagnostic tools to accurately differentiate instruction and use digital resources for individual, small group, and whole class practice and remediation. IXL has specific links of practice problems tied to the Idaho Content Standards and popular textbooks. The skill plans for using IXL in conjunction with high school math textbooks is interactive



and provides links to sample problems and practice section by section. Teachers have quick access to standards alignment and skill plans to help customize instruction. Navigation is smooth and intuitive and material gives clear and concise instructions to teachers and administrators. Each unit has a thorough list of topics and practice problems for each topic to build procedural fluency. There are links to prerequisite skill practice when a student struggles within a given skill set. Most lessons help solidify mathematical skill in performing operations and manipulating expressions and equations or graphing. The materials support skill practice. There is at least a 200% zoom and high-contrast and color-blind accessible combinations to support students with disabilities. Audio translations of key math skills in grades PK through Geometry are available. The technology is platform neutral.

- Weaknesses: Lesson design consists only of a sample problem and occasionally a video. Initial learning of concepts would require separate explanations and instruction. The skill and drill of each lesson promotes procedural fluency given the concept has already been understood and the student just needs practice on the skill. The majority of lessons focus on skill and procedural fluency rather than initial conceptual learning or application to relevant problems. Real life scenarios and modeling are not integrated throughout lessons, rather these show up as a small percentage (if any) of the stand-alone topics within each unit throughout the Algebra 1 and Algebra 2 curriculum. Relating the skills practiced in a lesson to conceptual comprehension of when these skills should be used is rare. Printed materials are not available. Most information is given via words or equations in the Algebra 1 and Algebra 2 curriculum. There is very limited evidence of illustrations or supportive visuals in the lessons. Assessments can be customized in that particular problem types may be used, but problems themselves cannot be edited. Actual digital materials within a lesson have no differentiated reading and are non-editable.
- Key Features: Whether teaching in class, remotely or in a hybrid model, IXL is the end-to-end learning solution that drives positive student learning outcomes and supports teachers with up-to-date assessments of where students are, insights on where they need help, and actionable next steps to differentiate instruction and accelerate their learning. IXL supports every student to learn independently, at their working level, and at their own pace. With personalized guidance and insightful analytics, students are empowered to take ownership of their learning, making informed choices about what to learn next and tracking their progress towards mastery.

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**For Questions Contact**

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