

Zearn

Components

Independent Digital Lesson Components

1st-5th Grade Independent Digital Lessons

Each 1st-5th grade Independent Digital Lesson consists of an *Adaptive Fluency*, a *Lesson-Aligned fluency*, *Guided Practice*, and *Independent Practice*. Students work through the Independent Digital Lesson at their own pace and are always assigned to one of these activities in their Student Feed. Students can only access the next digital activity in the sequence once they complete their currently assigned activity.

After a student successfully completes the Tower of Power, the student earns a Badge, marking its completion, which will always be visible within the student's My Stuff feed. The student is then automatically moved onto the next lesson in our curriculum and will be assigned to the appropriate Number Gym activity.

Adaptive Fluency: Number Gym

Every Independent Digital Lesson and K Digital Activity includes Number Gym, an individually adaptive fluency experience that helps students build foundational number sense. For older students, Number Gym activities are designed to bridge K–2 math foundations, reinforce previously learned skills, and address areas of unfinished learning.

Lesson Aligned Fluency

In addition to Number Gym, Zearn Math's adaptive fluency experience, each Independent Digital Lesson includes a fluency activity aligned to the specific lesson the student is working on. These activities support ongoing grade-level learning by developing students' procedural fluency and preparing them for upcoming content. Students practice prior concepts in lesson aligned fluency activities such as Sprints, Multiply Mania, Pair Compare, Totally Times, Fraction Action, Mix and Match, and Blasts. While students are timed in some lesson-aligned fluency activities, the timer is not emphasized in the experience. The focus of timed activities is for students to answer as many questions as they can and strengthen their math mindsets by working to top their own personal bests. All software-based fluency work complements teacher-led whole-group fluencies, and the combination strengthens students' math understanding and learning retention.

Guided Practice: Math Chat

Students learn new concepts and extend their understanding during the Guided Practice portion of Independent Digital Lessons. Students experience one of four different Guided Practice activities—Story Time, Math Chat, Learning Lab, or Z-Squad. Each activity creates a rich learning environment for students through interactive and multisensory videos featuring real on-screen teachers, digital manipulatives, and paper-and-pencil Student Notes. There are also differences between specific activities intentionally designed to help students develop along additional dimensions. For example, Z-Squad helps students grow their own understanding of themselves as competent mathematicians by featuring similarly aged and diverse on-screen students working through problems and encountering and persevering through challenges.

Independent Practice: Tower of Power

After completing Fluency and Guided Practice, students demonstrate understanding in the Tower of Power. Students need to answer all of the questions correctly to complete the Tower of Power and unlock the next Independent Digital Lesson. Problems in the Tower of Power are digitally translated from the paper Problem Set.

As students work through the Tower of Power, embedded remediation provides just the right amount of support to help them stay engaged and continue learning independently. For students struggling with a concept, these remediation supports can include more scaffolded manipulatives or additional interactive videos that break down the question in a different way.

In the Tower of Power, this embedded remediation is called a Boost. If students make a mistake in a Tower of Power problem, a Boost breaks down the question into smaller steps with more supportive manipulatives to allow students to understand and correct their mistakes. Students then have a chance to demonstrate their learning with a new problem. If students continue to struggle in the Tower of Power after multiple remediation paths, their teacher receives an alert in the Tower Alerts Report, enabling them to provide differentiated support for that student. Boosts, like all embedded support in Independent Digital Lessons, precisely address misconceptions in real time and give all students opportunities to visualize problems in multiple ways and try again.

Saving Progress in Digital Lessons

As students work through each component of their Independent Digital Lesson, their progress is automatically saved. Below, we've outlined how progress is saved for specific types of activities:

- **Adaptive Fluency:** Once a student completes their Number Gym activity, they automatically progress to Lesson-Aligned Fluency. The Lesson-Aligned Fluency will appear as a card in their Student Feed. If a student navigates away from their Number Gym activity before it is completed, they will be required to start from the beginning the next time they access the activity.
- **Lesson-Aligned Fluency:** Once a student completes their Lesson-Aligned Fluency activities for a particular Digital Lesson, they automatically progress to Guided Practice. This appears as a card in their Student Feed. Similar to Adaptive Fluency, if a student navigates away from their Fluency activity before it is completed, they will be required to start from the beginning the next time they access the activity.
- **Guided Practice:** As students complete problems in the Guided Practice portion of a Digital Lesson, Zearn automatically saves their progress for four days. If a student navigates away from the Guided Practice, when they return, they will be prompted to start the video at the last checkpoint they completed. When students return to a Learning Lab, they will begin where they left off in the Warm Up, Dive in, or Wrap up. The reason we only save progress for four days is that we have found that students who return to a Guided Practice activity after a week or more need the refresher of starting again to learn the concept; these students will log in and be placed at the beginning of the Guided Practice.
- **Independent Practice:** As students work through the Tower of Power, their progress is saved automatically at each step in the Tower of Power. If a student is struggling in the Tower, they receive remediation support in the form of a Boost. The Boost breaks down the question into smaller steps with a more supportive manipulative. Once students complete the Boost, they need to demonstrate understanding on a new problem before they advance. This can sometimes be perceived as starting over by students. (You can tell that a student is working through a Boost by the yellow bar that is shown at the top of the problem they're working on in the Tower of Power)