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Overview

*FASTT Math* Next Generation is a mathematics intervention program for grades 2 to 9 that uses the FASTT (Fluency and Automaticity Through Systematic Teaching with Technology) system to help students develop fluency with basic math facts. The software differentiates instruction based on students’ individual fluency levels in customized, daily sessions. Through the Scholastic Achievement Manager (SAM), teachers may set students’ Program Settings and generate reports in *FASTT Math* Next Generation (for more information, see [SAM Settings and Reports for FASTT Math Next Generation](#) at the Scholastic Education Product Support website [page 52]).

*FASTT Math* Next Generation is comprised of the instructional software and STRETCH-To-Go games. The software leads students through a linear path of instruction and assessment. Students work in the software through Operations (Addition, Subtraction, Multiplication, Division) and Fact Ranges, which comprise either numbers from 0 to 9 or 0 to 12. By default, all students begin *FASTT Math* Next Generation with Addition 0–9. Teachers may set a different opening Operation and Fact Range for students in the Program Settings.

As part of the daily lesson, students work on a customized assignment and complete at least one Fluency Game. Students must complete these tasks before moving on to the next assignment. Students receive one lesson per day (teachers may use the Program Settings to add a second lesson), and each lesson takes about ten minutes to complete. Students who log in again after they have completed their lesson for the day may play additional Fluency Games.

Assessment Types

When students begin a new Operation, they take a Placement Assessment to determine which math facts they need to master. Students receive direct instruction on their customized fact list, along with practice activities. Daily lessons are determined by students’ progress, and are comprised of the following activities:

- **Placement Assessment**: All Operations begin with a Placement Assessment (referred to in the program as a Typing Challenge and Fact Challenge).

- **Adaptive Instruction**: During each lesson, students receive one of the three types of instruction: Learn New Facts, Review Facts, and Practice Facts.

- **Periodic Assessments**: Periodic Assessments are presented to students to evaluate their fluency of math facts. They include a Mastery Assessment, which evaluates fluency of facts learned in the software and a Challenge Assessment, which evaluates fluency of facts learned outside the software.

- **Independent Practice**: The Fluency Games are students’ Independent Practice activities. They are presented at the end of each lesson (except for the Placement Assessment).
Student Accessibility

FASTT Math Next Generation provides accessibility features that can enable some visually impaired students to use the application. The contrast setting, for example, will help a student who has trouble reading black text on a white background.

FASTT Math Next Generation requires students to view images and videos, speak into a microphone, and use a mouse. Students who have difficulty with these requirements will need assistance when using the program.

FASTT Math Next Generation does not provide textual equivalence to bitmap-rendered content. Students who are dependent on a Braille or text-to-speech device will be unable to use the application. Also, though closed captions are available for the hearing-impaired, the application does not provide a description of the video, nor does it provide the closed-caption text in text format (it is only available as a display).

Browser-based accessibility features, such as screen and font magnifiers, are not tested by Scholastic and may not be compatible with FASTT Math Next Generation. Even in cases when the features may work with the program, the input focus is not set to allow students using screen magnifiers to follow the onscreen changes. Similarly, changing display settings may render the program unusable. Students needing to see larger text should use an external screen magnifier rather than changing display settings or using a feature of the browser program.

Mac OS X and Windows operating systems, as well as Internet Explorer, Firefox, and Safari browser programs, offer a range of accessibility features that may enable users with disabilities to, among other things, perform basic navigation with a keyboard instead of a mouse by using the Tab key.
Using the Software

Each FASTT Math Next Generation lesson has two parts that students must complete:

- **Adaptive Instruction or Assessment**: This is comprised of an instructional activity (Learn New Facts, Practice, or Review) or an assessment (Challenge, Special Challenge, or Mastery).

- **Independent Practice**: A Fluency Game. Students may choose one of twelve available Fluency Games.

Students must successfully complete both parts of the lesson in order for the software to consider the lesson complete. If students quit the program before finishing the required Fluency Game, they have to repeat the lesson when they continue their work the next day.

Students may choose to play additional games after completing the lesson. Scholastic recommends playing one or two additional games per daily lesson.

Encourage students to respond quickly and accurately to the facts in the games. FASTT Math Next Generation tracks performance in all software activities and Fluency Games (performance in STRETCH-To-Go games is not recorded). When students play additional Fluency Games, they may quit at any time without losing their completed lesson work.

When students click the **Exit** button, the program pauses and asks if they want to quit. This prevents students from unintentionally exiting during a lesson.

Teachers may run the Student Lesson Status Report (see **SAM Settings and Reports for FASTT Math Next Generation**) to see records of any incomplete lessons. If there are many incomplete lessons, remind students to complete at least one Fluency Game in each lesson. Be sure to remind students to allow enough time to complete the lesson.
Logging In

Student Login

Students are enrolled in FASTT Math Next Generation through Scholastic Achievement Manager (SAM). See Enrolling and Managing Students In Scholastic Achievement Manager for detailed instructions on enrolling students.

Once students are enrolled in FASTT Math Next Generation, they may log in to the program through the Student Access Screen on the student workstation. To open the Student Access Screen, open the workstation's browser program and use the Student Access Screen bookmark (see the FASTT Math Next Generation Installation Guide for help bookmarking the Student Access Screen).

The Student Access Screen displays icons for all Scholastic products installed on the server.

To open the Suite Screen for FASTT Math Next Generation, click the FASTT Math Next Generation icon on the Student Access Screen.
Click the FASTT Math Next Generation icon to open the FASTT Math Next Generation Login Screen.
To log in from the Login Screen, type in the username and password, then click Go On or press Enter (or Return) on the keyboard.

Students may be unable to log in if:

- They type their username or password incorrectly (they will be prompted to retype the information).
- Their teacher has not enrolled them in FASTT Math Next Generation.
- They are working on a Placement Assessment and receive a “Done for Today” message. (They will have to wait one day before logging in again.)
The Student Dashboard

After students complete the Placement Assessment (page 14) they go directly to their Student Dashboard. The Student Dashboard monitors and displays students’ progress through the FASTT Math lessons and Fluency Games. Upon login, students have two minutes in the Student Dashboard. The gauge icon above the Go button displays the time remaining for students to view the Student Dashboard. Students click the tabs on the Student Dashboard to view their data.

Home Tab

The Home tab displays information on students’ work in the FASTT Math assessments and Fluency Games:

- **My Math Facts** displays students’ current Operation and the number of their Fast Facts, Focus Facts, and Study Facts.

- **News Feed** shows real-time news about students’ progress in the current Operation, data about their fact mastery status, and information about session times, personal bests, and awards.

- **My Progress** shows a graph of the student’s total Fast Facts for the last two weeks, time spent the last five lessons, and their top Fluency Game score.

Students may click Go to start their lesson, or click Exit to log out of FASTT Math Next Generation. Clicking the Sound icon toggles the audio on or off.
My Fact Grid Tab

The My Fact Grid tab displays students’ current Fact Grid (page 20).
My Reports Tab

Click **My Reports** to open the My Reports tab. The My Reports tab displays two graphs showing students their total Fast Facts over the last two weeks, and the time spent in *FASTT Math* Next Generation over the last five sessions.
My Personal Best Tab

Click My Personal Best to open the My Personal Best tab. This tab tracks students’ performance and rewards in FASTT Math Next Generation activities and games.

The My Personal Best tab has two different sections:

- **High Scores** lists students’ high scores and total minutes in Fluency Games. Clicking a game title highlights that game in the My Personal Best tab. Use the scroll bar on the right to view all of the high scores.
- **Trophies** displays students’ milestones in the highlighted game. Trophies are awarded as students reach different levels of achievement.
- **Fast Points** show students’ personal best Fast Points score (page 31).

Students may view their dashboards until their allotted time expires, or may click Go to leave the Dashboard and move to their Fact Grid.
Placement Assessment

At the start of each new Operation, students complete a Placement Assessment. The *FASTT Math* Next Generation Placement Assessment consists of two parts, the Typing Challenge and the Fact Challenge.

Before the Placement Assessment begins, *FASTT Math* Next Generation provides an overview of the student experience with the program. Students see an introduction with specific audio instructions on what to do during the Typing Challenge part of the Placement Assessment. When students finish the Typing Challenge, they will receive specific instructions on what to do during the Fact Challenge part of the Placement Assessment.

When students finish the Placement Assessment, they are done for the day. The next time they log in, they go directly to their Student Dashboard.
Typing Challenge and Fact Challenge

During the Placement Assessment, FASTT Math Next Generation assesses students' work to measure the facts with which they are fluent. The Placement Assessment is comprised of two parts, the Typing Challenge and the Fact Challenge.

The Typing Challenge records students' speed in typing numbers. Each number represents the answer to a fact in the assigned Operation, such as the number 21, which is the answer to the fact 3 x 7. Each number is presented multiple times. FASTT Math Next Generation calculates the median typing time. The Typing Challenge is broken up into sets of numbers, each of which includes up to 46 numbers, depending on the Operation.

The Fact Challenge assesses students' speed in answering math facts. It presents a variable number of facts broken into sets of up to 40 facts. Students respond to each fact twice during the Fact Challenge, and students who answer facts fluently receive all the facts in the Operation before the assessment is completed. Struggling students do not receive more difficult facts. The assessment allows students to answer as many facts as they can, without frustrating those who are proceeding slowly. When students answer the facts correctly, the program compares the two time measurements to find the difference. This time difference is the actual response time and is the critical measurement for determining if students are recalling answers from memory or figuring out the answer. Students are considered fluent in a fact if they are able to provide the correct answer in 0.8 seconds or less. If a student is answering problems incorrectly or not paying attention, a set may end early.

Students complete the Typing Challenge and Fact Challenge in the first lesson of a new Operation. Depending on the student, the lesson may take longer than ten minutes. Students who stop in the middle of the Typing Challenge will be able to continue from the last unsaved set the next time they log in.

Students who cannot finish the Fact Challenge during the first day may complete it the next time they log in. FASTT Math Next Generation informs students when the first lesson is complete.
Typing Challenge Input Screen

When students click Go, FASTT Math Next Generation begins presenting numbers onscreen, one by one. Students type the number they see, then press the spacebar for the next number. Students should do this as fast as they can. If a student does not type a number in 60 seconds, the number disappears and the next number appears. The To Do counter on the Fast Meter on the lower right corner of the screen shows how many numbers are left to type.

Students may click Exit to log out of FASTT Math Next Generation. Clicking the Sound icon toggles the audio instructions on or off.
Typing Challenge Completion Screen

This screen appears between sets of the Typing Challenge and shows students how many sets they have completed. Each ball represents one set, and when the set is completed, the ball fills with color and the check mark appears.
Fact Challenge Input Screen

When students click Go, FASTT Math Next Generation begins presenting facts, or problems, onscreen, one by one. Students type the answer to the fact they see and press the spacebar to make the next fact appear. Students have 15 seconds to type the answer; if they exceed that time, the fact disappears and the next one appears. A counter at the bottom of the screen shows how many facts are left to do.

Students do not receive feedback during the Fact Challenge. At the end of the Fact Challenge, students see their Fast Facts and Study Facts on the Fact Grid.
Fact Challenge Completion Screen

These screens appear between sets of the Fact Challenge and show students how much of the assessment has been completed.
Fact Grid

The Fact Grid shows the status of students’ fluency with each fact in the assigned Operation.

Presentation of the Fact Grid

Students see the Fact Grid for the first time after they complete the Placement Assessment. At this point, the Fact Grid displays students’ Fast Facts and Study Facts (based on answers given during the assessment). Study Facts eventually become Focus Facts as they are introduced for instruction and practice by the program.

The Teacher Dashboard alerts teachers when students have less than 50% Fast Facts after their Placement Assessment. Teachers should examine these students’ Fact Grids for gaps in the 0s, 1s, and 2s. These gaps may indicate issues that students may have with number sense and operations that should be addressed before students use the FASTT Math software. The FASTT Math Next Generation Teacher’s Guide contains assessments that can determine if students require additional intervention prior to using the software.
Types of Facts

The Fact Grid displays all the facts in the Operation, as well as students’ Fact Range (either numbers between 0 and 9 or numbers between 0 and 12). Facts are presented in three states:

**Fast Facts**: These are facts that students are able to answer correctly in 0.8 seconds or less. Students must demonstrate fluency with the fact in either the Placement Assessment or a subsequent program assessment.

**Focus Facts**: These are facts that students are currently working on. Students receive instruction on these facts and must answer correctly in 1.25 seconds or less (response time is adjustable in SAM; see *SAM Settings and Reports for FASTT Math Next Generation* for more details).

**Study Facts**: These are non-fluent facts that students have given slow or incorrect responses to in the Placement Assessment.
Changing Fact States

Facts in the Fact Grid are highlighted as Study Facts, Focus Facts, or Fast Facts. These fact states change based on student performance in the program.

Study Fact to Fast Fact

Placement Assessment: In their initial challenge students are assessed on their current fluency with facts. Facts change from Study Facts to Fast Facts in the Fact Grid when students correctly answer the equation in 0.8 seconds or less (not including keyboard typing time).

New Level Challenge: When all facts in a level on the Fact Grid change to Fast Facts or Focus Facts, the program presents a New Level Challenge, a challenge using facts on the next level. This enables the program to determine if students are demonstrating fluency with facts learned outside the program. These become Fast Facts when students answer correctly in 0.8 seconds or less (not including keyboard typing time).

Study Fact to Focus Fact

Learn New Facts: During this activity, a Study Fact changes to a Focus Fact when students answer correctly in 1.25 seconds (not including typing time).

Focus Fact to Fast Fact

Mastery Assessment: Students with Study Facts left in their Fact Grid take a challenge to determine their fluency on their current Focus Facts after 60 minutes of instructional lesson time or after six complete lessons (whichever comes first). Students who provide a correct answer in 0.8 seconds or less to Focus Facts see these facts become Fast Facts; if students take longer than 0.8 seconds, the Focus Facts remain and are presented at the next Mastery Challenge.

Students who have only Fast Facts and Focus Facts in their Fact Grids get a Mastery Challenge after 30 minutes of instructional time or three complete lessons (whichever comes first).
Adaptive Instruction

Fact Instruction Overview

After finishing the Placement Assessment and establishing their Fact Grid, students receive several types of instructional and practice activities in FASTT Math Next Generation. These activities present problems that students must answer as quickly as possible.

<table>
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<th>Activity Type</th>
<th>When Presented</th>
<th>Purpose</th>
<th>What Is Presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn New Facts</td>
<td>Every day, unless another instructional activity or challenge has been triggered.</td>
<td>Build memory relationship for up to three (usually two) Study Facts from students’ Fact Grid.</td>
<td>The next available Study Fact pair from students’ Fact Grid.</td>
</tr>
<tr>
<td>Review Facts</td>
<td>When students’ retention level (accurate recall or learned facts) falls below 80%.</td>
<td>Repeat focused instruction on already-learned facts that students have trouble remembering.</td>
<td>The two to three facts that students have had the most trouble with. At the end of the activity, students’ retention level is re-evaluated to see if another Review Facts activity is necessary.</td>
</tr>
<tr>
<td>Practice Facts</td>
<td>Periodically; usually triggered when students master a 7s fact (example, 7+3).</td>
<td>Provide periodic rest from instruction on new facts.</td>
<td>Practice on most recently learned facts.</td>
</tr>
</tbody>
</table>

The goal of the instructional activities is for students to recall new facts from memory on a consistent basis in less than 1.25 seconds so they can become Focus Facts. The response time is adjustable through SAM. See SAM Settings and Reports for FASTT Math Next Generation for more information.

Students receive instruction in up to three (usually two) facts per lesson. Students who log in a second time after completing instructional activities play Fluency Games that reinforce the activity’s purpose.

Students follow a four-step process toward creating a memory association for each math fact. In the Practice Facts activities, only Step 4 is presented.
Fact Selection and Presentation

The program selects and presents a pair of facts from each student’s Fact Grid. Students see and hear their facts and are asked to say them out loud. This step is part of Learn New Facts and Review activities. If a given fact does not have a pair (for example, 3+9 is a Study Fact and needs instruction, but 9+3 is already a Fast Fact), the program looks for the next available single fact or fact pair.

Fact selection for Learn New Facts is based on the following conditions:

- **Addition**: The lowest available addend; for example, all the 3+X and X+3 facts are presented before any 4s are presented.
- **Subtraction**: The lowest available subtrahend (second number in the fact); for example, X-3 is presented before X-4.
- **Multiplication**: The lowest available multiplier; for example, 3xX and Xx3 facts are presented before any 4s are presented.
- **Division**: The lowest available divisor (second number in the fact); for example, X÷3 is presented before X÷4.

During a Review Facts session, the program chooses the two or three facts most in need of review based on a pattern of slow and incorrect student responses.
After selecting a fact pair for instruction, the program presents these facts on the next screen. Students hear the facts read aloud and are asked to repeat them. This builds a memory association between the problem and the answer.

During Learn New Facts and Review Facts activities, students see the Fact Presentation Screen.
Fact Model Screen

Students have the option to see and hear an animated visual model that represents the fact. This step is part of Learn New Facts and Review activities. Students click See It on the Fact Presentation Screen to view the animation.

The visual model helps students understand what the fact represents numerically, and how it fits with other facts that they are learning. Viewing the animation is optional; however, teachers may want to encourage students to click See It.

Students may also click Repeat to view the animation again, or click Go to return to the list of Study Facts.
Fact Typing Screen

This step asks students to type each presented fact and provide the answer from memory. This step is part of Learn New Facts and Review activities.

The Fact Typing Screen is presented after students have had a chance to get familiar with the pair of facts for instruction. Students are asked to type in each number sentence from memory. Students who answer incorrectly or who cannot remember the fact see the fact pair again.

To type a fact:

1. Type a number in the first box.
2. Press the spacebar, Enter (or Return), or the right arrow key to move the cursor to the second box.
3. Use the symbols +, -, x, or / to input the operand for the problem.
4. Press the spacebar, Enter (or Return), or the right arrow key to move the cursor to the final box.
5. Type in the last digit.
6. When the fact is complete, press the spacebar or Enter (or Return). Correct facts move to the top of the screen. If the response is incorrect, the list of facts is presented again.
Fact Input Screen

After students have successfully typed the pair of Study Facts from memory, the program continues with practice focused on the new Study Facts. During this practice, the program uses a research-based method for delivering instruction known as Expanding Recall. This model intersperses new facts with known facts, gradually increasing the time between exposures to the new facts until they become fluent.

The goal of this part of the activity is to build students’ capacity to remember the answers to the new facts over a longer period of time. The program limits the allowed response time to prevent students from employing nonautomated strategies to provide answers.
The Fact Input Screen displays how many problems there are left to do in the set.

When students click Go to practice facts, the program presents facts, one by one, as in the Fact Challenge. Students type a response and press the spacebar on the keyboard. Once the problem is answered, the next problem appears. Students have 1.25 seconds to respond to each fact, though this response time may be adjusted in the SAM Program Settings.

The program presents between 50 and 70 problems, depending on program settings set in SAM. For more information on FASTT Math Next Generation Program Settings in SAM, see SAM Settings and Reports for FASTT Math Next Generation.

During a Learn New Facts activity, if students recall facts fluently, those facts change from Study Facts to Focus Facts in the Fact Grid. These facts are presented frequently for practice to help students increase their recall speed. Students who are unable to recall facts fluently see the facts presented again for instruction in the next Learn New Facts activity. These facts will not change to Focus Facts.
Feedback During Instruction

Many FASTT Math Next Generation activities provide students with immediate feedback to continually reinforce the memory relationship between the fact and the correct response.

When students respond incorrectly, the correct response is displayed and students are asked to type in an answer again.
Students who do not respond within the 1.25-second response time limit see an out-of-time icon, with the correct answer displayed. Students then type in the correct response.
Activity Completion Screen

When students complete a problem set during a Learn New Facts, Review Facts, or Practice Facts activity, they see the Activity Completion Screen, which shows their results as FASTT Points.

FASTT Points indicate how students performed on the preceding activity, and Best FASTT Points, show their maximum score in any non-game activity.

The Activity Completion Screen also displays new Focus Facts in the Learn New Facts activities.

FASTT Points are calculated based on the following factors:

- How fast students respond to the presented facts
- How many correct responses students give
- The problem’s difficulty level

FASTT Points are also visible on the Student Dashboard (page 13).
Style Gallery Screen

As students become more fluent with facts, they may customize the look of the software using the Style Gallery.

When facts become Focus Facts or Fast Facts, students may choose a new style. This changes the background image and the overall color scheme.

The Style Gallery shows available styles as thumbnails, with unavailable styles grayed out. Students may click any available style to preview it. To lock a selection, students click Go after choosing a thumbnail. When all facts on the level are either Focus Facts or Fast Facts, all the frames on that level become available.
Independent Practice

Fluency Games

Students play Fluency Games in the second part of every lesson. Fluency Games are fun, motivating games that increase students’ speed at recalling facts. Fluency Games are not available during the Placement Assessment lesson.

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>When Presented</th>
<th>Purpose</th>
<th>What Is Presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency Games</td>
<td>During each lesson, after students have completed instructional activities or assessment. Students are required to play one Fluency Game during the lesson. Students may play additional Fluency Games before logging out or if they log on a second time on the same day.</td>
<td>Provide a fun, motivating environment where students practice increasing their recall speed.</td>
<td>A set of problems (default setting is 60) that include Focus Facts and Fast Facts, with the emphasis on facts most recently learned.</td>
</tr>
</tbody>
</table>
**Game Gallery Screen**

On the Game Gallery Screen, students select a Fluency Game. All twelve games are listed on the screen, along with students’ current best score for each game.

Students see the Game Gallery after they complete the first part of the daily lesson, either an instructional activity or assessment. Students must complete one game as part of the daily lesson. Students may play additional games after completing the required lesson.

Students who complete their assigned Operation may play games as long as their assigned Operation remains the same.

When students finish their lesson, they click **Go** at the end of the lesson to move to the Game Gallery. Students select the game they want to play by clicking on it on the Game Gallery Screen and then clicking **Go** to start the game. Students’ chosen Fluency Game must be completed for the session to be saved in students’ profiles and displayed on their dashboards.
Playing a Game

FASTT Math Next Generation has twelve Fluency Games. The FASTT Math Next Generation games present a set of problems that emphasize the lesson’s Focus Facts and Fast Facts. Students play the games to improve their fluency and response speed from 1.25 seconds to 0.8 seconds or less, at which point they are considered fluent.
Fluency Game Completion Screen

When students finish their game, the Fluency Game Completion Screen appears and students can see their score.

The Fluency Game Completion Screen shows two scores: **Today**, which shows how students performed on the preceding game, and **Best**, which is the maximum score on previous games in the assigned Operation. Next to the scores is a target; when an arrow hits the target, it indicates the Today score is equal to or better than the Best score.

Scores are calculated based on these factors:

- How fast students respond to the facts presented
- How many correct responses students give
- The difficulty level of the problems
Periodic Assessments

Fact Challenges

In addition to instructional activities, FASTT Math Next Generation provides assessments that allow students to demonstrate their fluency with their math facts.

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>When Presented</th>
<th>Purpose</th>
<th>What Is Presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery Assessment</td>
<td>After 60 minutes of instructional time or after six</td>
<td>Determines students’ fluency (0.8 seconds or less) with Focus Facts. Non-Fluent Focus Facts are presented again in the next Mastery Assessment.</td>
<td>A Fact Assessment on all Focus Facts (up to 40 facts).</td>
</tr>
<tr>
<td>(Challenge)</td>
<td>complete lessons when students have remaining Study Facts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>After every 30 minutes of instructional time or after three complete lessons when there are no more Study Facts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenge Assessment</td>
<td>When all facts in a level are either Fast Facts or Focus Facts, the program presents a challenge on the facts that are on the next level.</td>
<td>Determines student fluency with facts on the next level.</td>
<td>A short Typing Assessment and a Fact Assessment on all Study Facts on the next level.</td>
</tr>
<tr>
<td>(Mastery)</td>
<td></td>
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</tbody>
</table>

Special Challenge Assessment

The Special Challenge Assessment is another type of assessment that is presented when students move from the 0–9 to the 0–12 Fact Range in the same Operation. The assessment elevates fluency of newly assigned facts to the 10s, 11s, and 12s. It includes a Typing Assessment and a Fact Assessment.
Completing the Operation

Students who convert all the facts in their assigned Operation to Fast Facts after their Mastery Assessment have completed that Operation. When they complete the Operation, they receive a completion award.

Teachers are notified of students’ awards through the Teacher Dashboard. Teachers can print out and award students the Operation Completed Certificate in SAM.
STRETCH-To-Go™

STRETCH-To-Go is designed to extend students' learning and deepen understanding of fluent and near-fluent facts. The six STRETCH-To-Go games provide meaningful practice with facts while also building connections among facts and higher-level mathematics concepts such as properties of Operations. The games also extend the use of basic facts to multi-digit and multistep calculation to increase computational flexibility. STRETCH-To-Go may be accessed from any computer with an Internet connection (for example, in a classroom, library, or home).

Accessing STRETCH-To-Go

Students who complete the Placement Assessment (page 14) may log in to STRETCH-To-Go and play the games.

Students may access STRETCH-To-Go from the FASTT Math Next Generation Access Screen.

Beginning at the Student Access Screen, click the FASTT Math Next Generation icon to go to the FASTT Math Next Generation Access Screen.
Logging In

Click the STRETCH-To-Go icon to launch STRETCH-To-Go.

At first login, enter the district ZIP code and select the district from the pull-down menu to go to the Login Screen. At the Login Screen, type in the username and password and click Go On. After the first login, use the computer’s browser program to bookmark this page for easy access.
The Game Gallery is the home screen for STRETCH-To-Go. From the Game Gallery, students may access one of the six games in STRETCH-To-Go:

- **FACTory**: Students build related number facts by clicking and dragging numbers from the conveyor belt to complete each fact family.
- **x-Bot**: Students use the arrow keys to position the power cell over the x-Bot with that number.
- **Sushi Monster™**: Students click plates to select addends or factors that combine to make the target sum or product that the Sushi Monster wears around its neck.
- **Equal and Out**: Students drag numbers or expressions to balance equations and raise the platform until the explorer can escape. They must correctly balance at least eight equations.
- **SpeedSwap**: Students move number tiles around the board to find as many pairs of adjacent addends or factors that make the target number before time runs out.
- **Teeing Up Tens**: Students sink a mini-golf putt by using the club and ball that together form a fact to putt to the hole that correctly completes the fact.

Students click **Game Gallery** to return to the Gallery, and may click **Help** to get help with any game. Clicking **Exit** logs students out of STRETCH-To-Go.

The Game Gallery displays stars and trophies students earn by reaching different milestones in each game. Students who return to the Game Gallery before the end of the game do not have their scores for that game recorded.
FACTory

Select FACTory on the Game Gallery to play FACTory.

Select an Operation and a level from the Level Selection Screen to start the game.

The game begins when the numbered yellow pieces come out of the factory box on the conveyor belt. Players drag the numbers to the math fact spaces on the factory board to assemble a correct fact. When all facts are completed correctly the student has successfully formed the fact family and the yellow pieces turn green. Incorrect equations/facts turn the pieces red and return them to the conveyor belt. Players have until the first piece falls off the conveyor belt to complete the board with two to four (depending on the level) correct facts. When they complete all the facts, the game restarts with new pieces and numbers.

At the end of the game, players see their high score for the day and their personal best score, as well as their personal best times and best times for the day.

Players receive one star on the Game Gallery after completing two boards, two after completing four boards, and three after completing all five boards. Players get trophies for 25 stars and when they complete all levels in each Operation.
x-Bot

Click x-Bot on the Game Gallery to play x-Bot. Select an Operation and a level from the Level Selection Screen to start the game.

In x-Bot, players see a green energy pack that contains an equation with a missing value descend. The player must choose the robot holding the correct answer by clicking that robot or by moving the energy pack left or right using the arrow keys. Correct choices are stacked above the robots as green bars; incorrect choices are stacked as grey bars. When players accumulate at least three green bars in a row in any direction, they get a bonus.

At the end of the game, players see their high score for the day and their personal best score, as well as their personal best times and best times for the day.

Players receive one star on the Game Gallery after eight correct equations, two after sixteen, and three after 22. Players get trophies for 25 stars and when they complete all levels in each Operation.
Click Sushi Monster on the Game Gallery to play Sushi Monster. Select an Operation and a level from the Level Selection Screen to start the game.

In Sushi Monster, the player clicks sushi pieces to make the number shown on Sushi Monster’s neck. There are five boards on every round.

Depending on their level, players receive one star on the Game Gallery for 8 to 10 correct answers, two stars for 11 to 13 correct answers, and three for 14 correct answers. Players get trophies for 25 stars and when they complete all levels in each Operation.
Equal and Out

Select Equal and Out on the Game Gallery to play Equal and Out. Select an Operation and a level from the Level Selection Screen to start the game.

In Equal and Out, players drag and drop numbered blocks up to the platform to correctly complete the equation and lift the explorer’s platform out of the ruins. As equations are successfully completed, the platform moves higher until the explorer escapes from the ruins. Players are allowed only two incorrect moves; at the third incorrect move the game ends and the adventurer falls to the bottom of the tomb.

At the end of the game, players see their high score for the day and their personal best score, as well as their personal best times and best times for the day.

Players receive one star on the Game Gallery after five correct facts, two after eight, and three for ten correct answers. Players get trophies for 25 stars and when they complete all levels in each Operation.
Click SpeedSwap on the Game Gallery to play SpeedSwap. Select an Operation and a level from the Level Selection Screen to start the game.

The goal of SpeedSwap is to solve the target number by matching two neighboring tiles on the grid. There are three target numbers per round. The player has one minute on each to get as many matches as possible.

At the end of the game, players see their high score for the day and their personal best score, as well as their personal best times and best times for the day.

Players receive one star on the Game Gallery after 15 correct facts, two after 25, and three after 40. Players who reach 25 stars receive a trophy on their Game Gallery. Players get trophies for 25 stars and when they complete all levels in each Operation.
Teeing Up Tens

Click Teeing Up Tens on the Game Gallery to play Teeing Up Tens. Select an Operation and a level from the Level Selection Screen to start the game.

In Teeing Up Tens, players are on a miniature golf course and they must shoot the ball in the correct hole to solve the equation. If they put the ball to the correct hole, players receive credit for a correct response, and they are presented with another equation. If they put the ball to the incorrect hole, players receive no credit. Players have two minutes to “tee up” as many equations as possible. Players who correctly finish 8 to 10 equations (depending on the game level) before the two minutes end receive bonus points and can start a new round.

Players receive one star on the Game Gallery after five correct facts, two after ten, and three after 15. Players get trophies for 25 stars and when they complete all levels in each Operation.
**FASTT Math Next Generation Mobile Access**

*FASTT Math* Next Generation is fully compatible with mobile devices that have either Safari or Google Chrome installed.

Teachers and students may access the *FASTT Math* Next Generation student software by downloading and configuring the *FASTT Math* Next Generation app on an iOS- or Android-based device.

**Mobile Device Functionality**

*FASTT Math* Next Generation functions identically on a workstation or mobile device, with the exception that users tap buttons and links on the user interface, rather than use mouse or pointer as they do on workstations.

**Downloading the *FASTT Math* Next Generation App**

Download the *FASTT Math* Next Generation app from the iTunes App Store or the Google Play Store.

To access the *FASTT Math* Next Generation app, devices must meet the following requirements:

**iOS Based**
- iPad 2 or later
- iOS version 7.0 or later
- Headphone recommended (available separately)

**Android Based**
- Android 4.0 or later
- 10-inch screen recommended
- Headphone recommended (available separately)
Configuring the App in iOS

Prior to opening the app, tap the Settings icon on the iPad Home Screen.

Tap the FASTT Math Next Generation link from the Settings menu.

In the Site ID field, enter the host ID of the district’s SAM Server if it is hosted by Scholastic.

The host ID is the number that starts with h1 followed by eight digits in the SAM Server URL:

- SAM Server URL:
  http://h100000000.education.scholastic.com/ScholasticCentral
- Host ID: h100000000

If the district SAM Server is locally installed, enter the server URL in the Site ID field:

- http://[SAM Server Name or IP Address]:55880

SAM Server URL information is also available from the district SAM administrator.

Press the Home button to return to the iPad Home Screen. Tap the app to open it and move to the FASTT Math Next Generation login screen.

Guided Access

Guided Access is an iOS function that allows users to modify their device settings. Teachers and administrators may use Guided Access to control which iPad functions and buttons are enabled or disabled for student use. For more information on accessing and using Guided Access, see the iPad User Guide available at www.apple.com.
Configuring the App in Android

After downloading the app, tap the app icon. From the Login Screen, tap the Settings icon to open the URL field.

In the Set SAM URL field, enter the host ID of the district’s SAM Server if it is hosted by Scholastic.

The host ID is the number that starts with h1 followed by eight digits in the SAM Server URL:

- **SAM Server URL:**
  - http://h100000000.education.scholastic.com/ScholasticCentral
- **Host ID:** h100000000

If the district SAM Server is locally installed, enter the server URL in the Site ID field:

- http://[SAM Server Name or IP Address]:55880

SAM Server URL information is also available from the district SAM administrator.

Tap **Set**, and then log in from the Login Screen.
Technical Support

For questions or other support needs, visit the Scholastic Education Product Support website at: www.scholastic.com/fastmathnextgeneration/productsupport.

At the site, users will find program documentation, manuals, and guides, as well as Frequently Asked Questions and live chat support.

For specific questions regarding the Scholastic program suite, contact customer service to speak to a representative for each Scholastic Education technology program at:

- 1-800-283-5974 (all Scholastic Education technology programs)
- 1-800-927-0189 (other versions)

For specific questions about using SAM with your Scholastic programs, click Help in the Quick Links section along the top of any screen in SAM.