



# Fraction Nation Software Manual

For use with Fraction Nation v2.0.1 or later and SAM v2.0.2 or later

Copyright © 2011 by Scholastic Inc. All rights reserved. Published by Scholastic Inc.

Item PDF0175 (PDF)

SCHOLASTIC, FASTT MATH, READ 180, SYSTEM 44, READABOUT, FRACTION NATION, SRI SCHOLASTIC READING INVENTORY, SPI SCHOLASTIC PHONICS INVENTORY, SMI SCHOLASTIC MATH INVENTORY, SCHOLASTIC READING COUNTS! and associated logos and designs are trademarks and/or registered trademarks of Scholastic Inc. Other company names, brand names, and product names are the property and/or trademarks of their respective owners.



## Table of Contents

<b>What's New in Fraction Nation and Scholastic Achievement Manager version 2.0.1?</b>	<b>3</b>
<b>Overview</b>	<b>4</b>
About Fraction Nation	4
Topics and Lessons	4
About This Manual	5
<b>Previewing the Program</b>	<b>6</b>
<b>Logging In</b>	<b>7</b>
Student Access Screen	7
Fraction Nation Login Screen	8
<b>Placement Assessment</b>	<b>9</b>
Placement Assessment Overview Screen	10
Warm-Up Exercise	11
Math Fact Exercise	12
Multiple Choice Exercise	13
Results Screen	14
<b>The Student Roadmap</b>	<b>15</b>
The Navigation Bar	16
Lesson Detail Bubbles	19
<b>Lesson Flow</b>	<b>20</b>
Survey Question	20
Lesson Home Screen	21
Learn	22
Practice	24
Perform	25
Lesson Results	26
Survey Results	27
<b>Program Completion</b>	<b>28</b>
Final Assessment	28
<b>Technical Support</b>	<b>29</b>



## **What's New in Fraction Nation and Scholastic Achievement Manager version 2.0.1?**

Scholastic customers already using Fraction Nation and Scholastic Achievement Manager (SAM) will notice this new feature in Fraction Nation version 2.0.1.

- **Student Access Screen:** When students click the Student Access Screen bookmark, the new Student Access Screen opens in a separate browser window. The screen has an icon for every program that is installed on the server. Students click the program icon to go to the log in screen for that program.



## Overview

### About Fraction Nation

Fraction Nation is a program designed to help students in Grades 4 to 8 build proficiency and fluency with fractions and decimals by developing students' skills in rational number comparison, estimation, equivalence, addition, and subtraction.

### Topics and Lessons

Fraction Nation divides instruction into 64 lessons grouped into nine topic areas:

- **Topic A:** Introduction to Fractions (Lessons 1–7);
- **Topic B:** Learning About Fractions (Lessons 8–15);
- **Topic C:** Number Lines and Other Models (Lessons 16–20);
- **Topic D:** Learning About Decimals (Lessons 21–27);
- **Topic E:** Introduction to Equivalence (Lessons 28–36);
- **Topic F:** Equivalent Fractions (Lessons 37–46);
- **Topic G:** Equivalent Decimals (Lessons 47–52);
- **Topic H:** Adding and Subtracting (Lessons 53–57);
- **Topic I:** More Adding and Subtracting (Lessons 58–64).

Each lesson focuses on one key concept or skill. Lessons are presented in a 3-step sequence—Learn, Practice, and Perform—in which students receive instruction and guided practice, then demonstrate what they have learned.

The program requires students to complete each topic before moving on to the next one. Fraction Nation is adaptive to student performance—students who demonstrate excellence may accelerate through the program, and those who need additional instruction receive scaffolded feedback and targeted practice. Students progress through Fraction Nation at their own pace.

When students first log in to Fraction Nation, they take the Placement Assessment that measures their baseline fraction fluency. Based on this assessment, the program starts students at either Lesson 1 (Introduction to Unit Fractions) or Lesson 28 (Express Whole Numbers as Equivalent Fractions).

When students successfully complete all topics, they take the Final Assessment. When students finish the Final Assessment, teachers may print the Placement and Final Assessment Report in SAM to compare the scores from the two assessments. See [SAM Settings and Reports for Fraction Nation](#) for more information on viewing and printing reports in SAM.



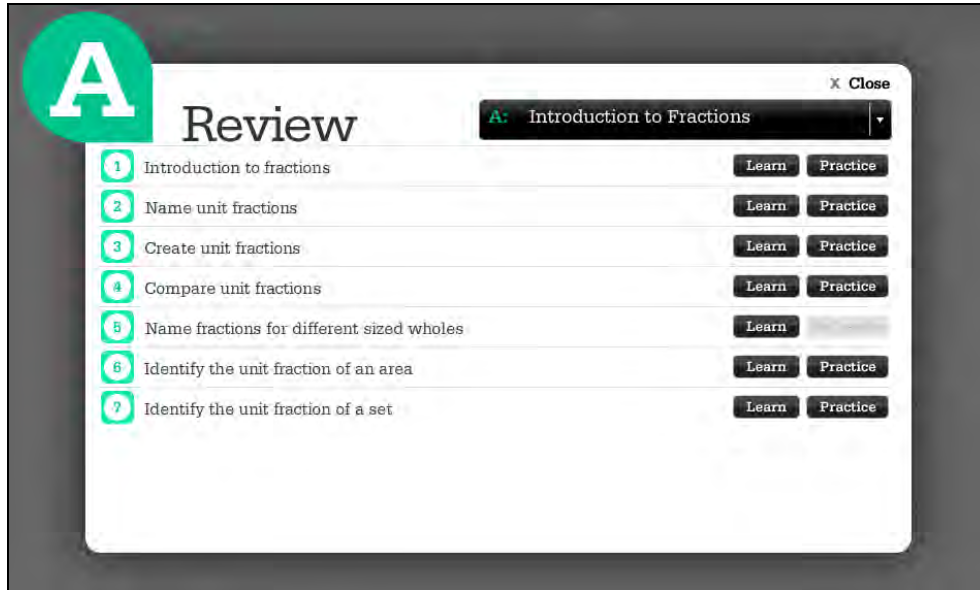
## About This Manual

This manual covers how to use the Fraction Nation program. For information on Fraction Nation program settings and reports in SAM, see [\*\*\*SAM Settings and Reports for Fraction Nation\*\*\*](#). For information on installing the Fraction Nation software, see the [\*\*\*Fraction Nation Installation Guide\*\*\*](#). For other information, see the table below. All manuals are available at the [Scholastic Education Product Support](http://www.scholastic.com/fractionnation/productsupport) website ([www.scholastic.com/fractionnation/productsupport](http://www.scholastic.com/fractionnation/productsupport)).

<b>For information on:</b>	<b>Download this manual:</b>
Fraction Nation program settings and generating reports in SAM	<a href="#"><b><i>SAM Settings and Reports for Fraction Nation</i></b></a>
Installing Fraction Nation software	<a href="#"><b><i>Fraction Nation Installation Guide</i></b></a>
Getting started with SAM and setting up accounts at the district and school levels	<a href="#"><b><i>Getting Started With Scholastic Achievement Manager</i></b></a>
Adding and enrolling students in SAM	<a href="#"><b><i>Enrolling and Managing Students Using Scholastic Achievement Manager</i></b></a>
Using SAM Resources	<a href="#"><b><i>Using Resources in Scholastic Achievement Manager</i></b></a>
Using the Book Expert	<a href="#"><b><i>Using the Book Expert in Scholastic Achievement Manager</i></b></a>
Using SAM Connect	<a href="#"><b><i>SAM Connect User's Guide</i></b></a>
Setting up a SAM Data Aggregation Server	<a href="#"><b><i>SAM Data Movement Manual</i></b></a>
Using Scholastic Hosting Services	<a href="#"><b><i>Scholastic Hosting Services User's Guide</i></b></a>

## Previewing the Program

Teachers may preview Fraction Nation by accessing the Lesson Review Library.



The Lesson Review Library displays the Learn and Practice Activities of all 64 lessons in the program. To access the Lesson Review Library, log in to Fraction Nation (page 6) with this username and password:

Username: educator

Password: fractions



### Teacher Tip

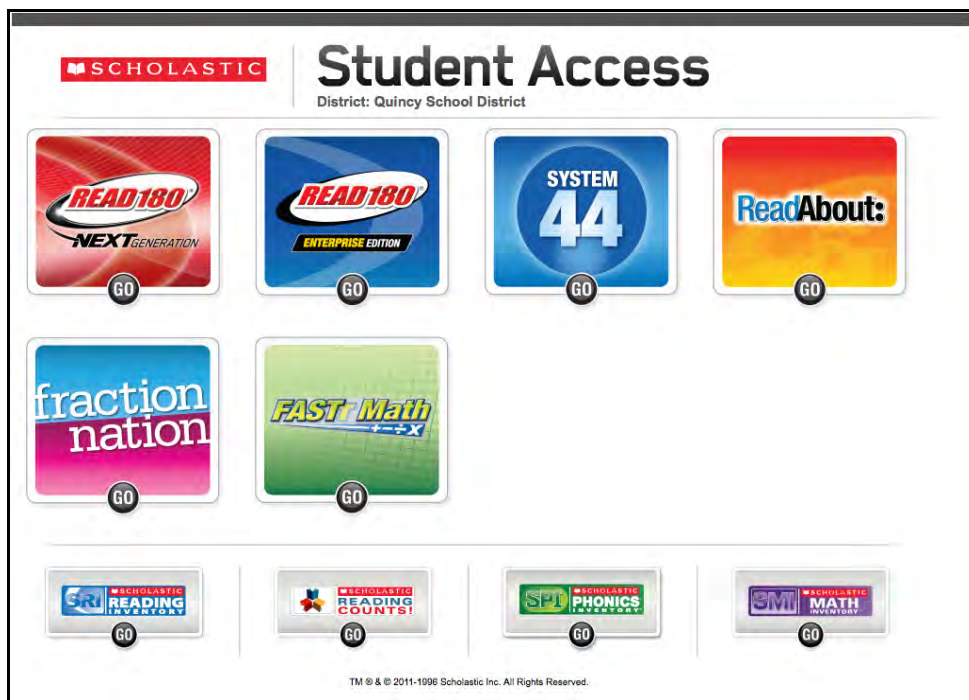
Have the school's SAM administrator set up a sample student account to view the entire Fraction Nation student experience.

## Logging In

### Student Access Screen

Students are enrolled in Fraction Nation through Scholastic Achievement Manager (SAM). See [Enrolling and Managing Students Using Scholastic Achievement Manager](#) for detailed instructions on enrolling students.

Once students are enrolled in Fraction Nation, they may log in to Fraction Nation 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 [Fraction Nation Installation Guide](#) for help with bookmarking the Student Access Screen).



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

To open the Fraction Nation Login Screen, click the Fraction Nation icon.

## Fraction Nation Login Screen

The Fraction Nation Login Screen opens from the Student Access Screen.



Enter your username and password and click **Go On**.

Students logging in to Fraction Nation for the first time go to the Introduction to Fraction Nation Screen to take the Placement Assessment. Students who have previously logged in to Fraction Nation go to the Student Roadmap Screen (*page 15*).





## Placement Assessment

Placement Assessment occurs automatically the first time a student logs in to Fraction Nation. The Assessment determines whether students should begin the program at either Lesson 1 (for students ready to begin instruction and practice with unit fractions) or Lesson 28 (for students ready for instruction and practice with equivalent fractions).

The Placement Assessment consists of:

- A warm-up exercise;
- 20 Math Fact Screener questions, made up of ten addition questions and ten multiplication questions;
- 20 multiple-choice questions concerning quantity, equivalence, and addition and subtraction of fractions.

Allow 30 minutes for students to complete the Placement Assessment. Students have one attempt at each question and they may not skip a question or return to a previously answered question. Assessment scores are based only on accuracy, not speed. Students who quit the program before finishing the assessment must restart the assessment the next time they log in.

Students who cannot use the mouse may use these keyboard shortcuts:

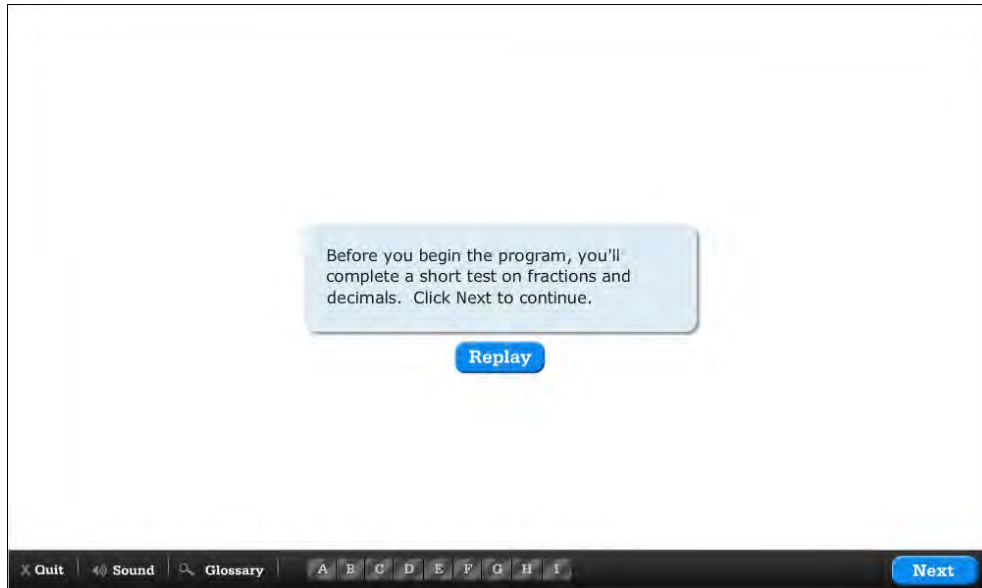
Keyboard shortcut	Description
Enter	Alternate for clicking the <b>Next</b> button. Advances student one screen when the <b>Next</b> button is enabled.
Esc	Exits the user from the program. On pressing <b>Esc</b> , the <b>Quit</b> confirmation dialog will appear.
Ctrl+Q (Windows) Cmd-Q (Mac)	Exits the user from the program. On pressing either combination, the <b>Quit</b> confirmation dialog should appear.

When students complete the Placement Assessment, teachers may review their scores in the Placement and Final Assessment Report, accessible in SAM. Teachers may also allow a student to take the Placement Assessment again by resetting the student’s settings in SAM. However, resetting students’ Placement Assessment removes all scores and information for that student.

For more information on resetting the Placement Assessment or viewing reports, see [SAM Settings and Reports for Fraction Nation](#).

## Placement Assessment Overview Screen

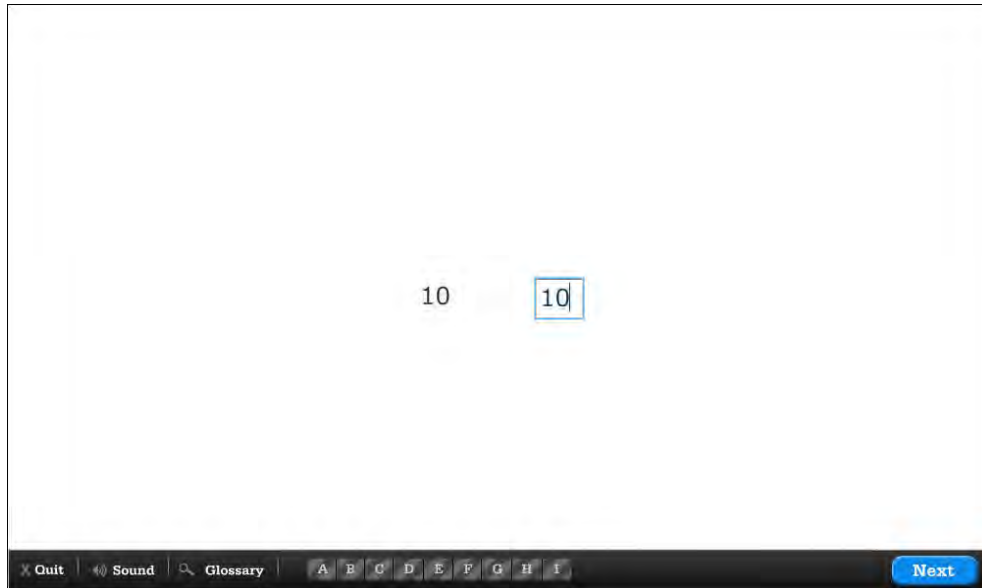
The first screen students see in the Placement Assessment is the Overview Screen, which describes the content of the test.



Students read the information and hear audio instructions. Students may click **Replay** to hear the instructions again. When they are ready to begin, they click **Next**. To turn the audio on or off, click **Sound**. Click **Quit** to exit the program.

## Warm-Up Exercise

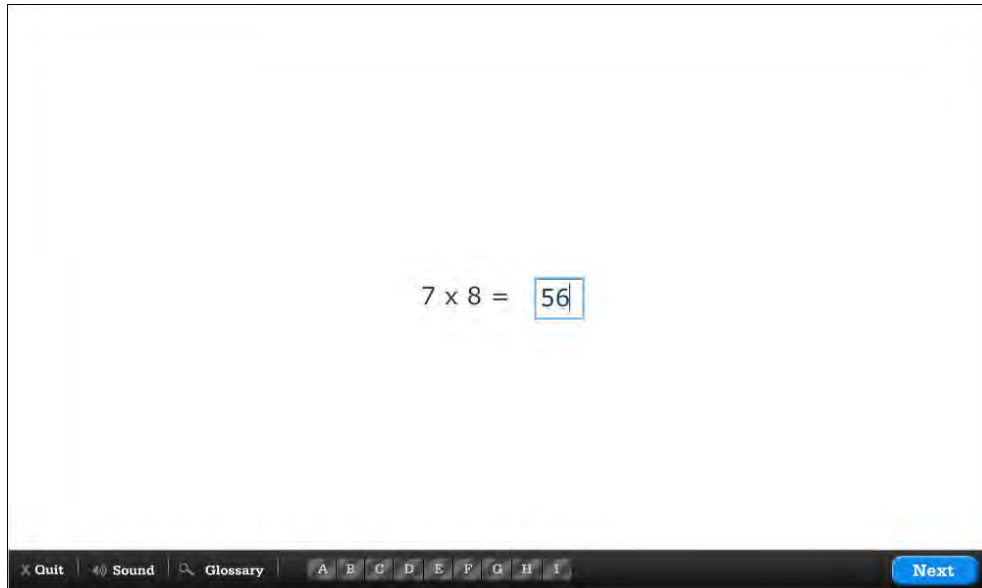
The Warm-Up Exercise prepares students for the Fact Screener Questions by measuring their keyboard skills, response time, and knowledge of numbers.



Students view a screen that introduces the Warm-Up Exercise and then click **Next** to begin. The exercise shows students a number, and students must type the number in the blank field as fast as they can, then click **Next** or hit the Enter (or Return) key. Students' answers in the Warm-Up Exercise are not scored.

## Math Fact Exercise

The Math Fact Exercise consists of ten addition and ten multiplication questions, presented one at a time.



Students view a screen that introduces the Math Fact Exercise and then click **Next** to begin. Students are then presented with questions and must type in the answer in the blank field as fast as they can and then click **Next** or hit the Enter (or Return) key to go on to the next problem.

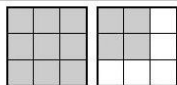
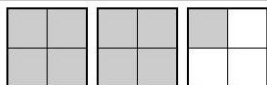
Students have five seconds to answer the question correctly to receive credit for the answer. After ten seconds, the program goes on to the next question.

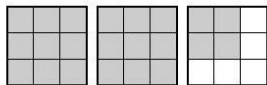
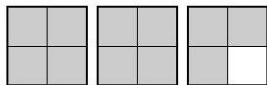
### Multiple Choice Exercise

The **Multiple Choice Exercise** consists of 20 separate questions related to fractions and decimals, presented one at a time, to assess students' knowledge and skills with fractions.

Which model shows  $\frac{9}{4}$ ?  This is one whole.

---

(A)  (B) 

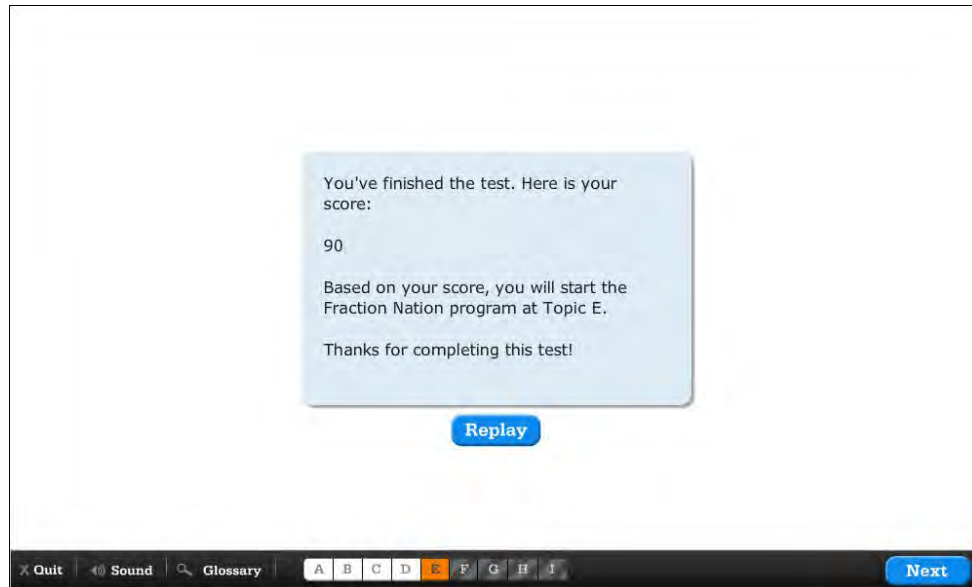
(C)  (D) 

Students view screens that introduce the Multiple Choice Exercise and then click **Next** to begin. Questions are presented to students in random order. Each screen presents one question and four answer choices. Students click one of the four choices to select the correct answer and then click **Next**.

There is no time limit on answering the questions, and students do not view feedback on their answers until the test is finished.

## Results Screen

The Results Screen displays students' Placement Assessment scores.



Students' scores in the Placement Assessment are based on accuracy only and determine whether the students begin Fraction Nation at Lesson 1 (for students ready to begin instruction and practice with unit fractions) or Lesson 28 (for students ready for instruction and practice with equivalent fractions). There is no manual placement for students.

At the end of the Placement Assessment, students click **Quit** to log out. To start working in Fraction Nation, students must log in again (*pages 6–7*).

## The Student Roadmap

When students finish the Placement Assessment, they go to the Student Roadmap when they log in. The Roadmap shows each topic in order along a road through Fraction Nation.



The Roadmap tracks students' progress through the program. Students also use the Roadmap to review lessons and survey their results.

Progress through the nine topics is displayed over two screens: the first displays Topics A–D; the second displays Topics E–I. The current topic is highlighted and called out with arrows. Each completed topic is colored; uncompleted topics are grayed out.

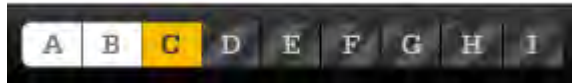
Students may scan through the topics by clicking the **Slide Right** and **Slide Left** buttons at the bottom of the screen.

Click **Go On** to begin the current lesson.

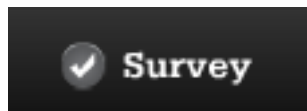
## The Navigation Bar



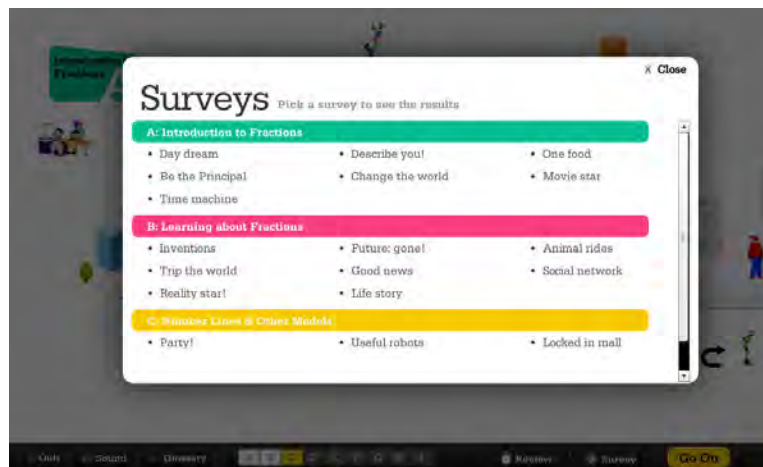
At the bottom of the Student Roadmap and most lesson screens is the Navigation Bar. The Navigation Bar contains the following commands:



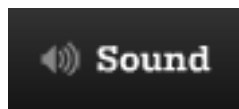
- **Topics:** The Topics Bar shows progress in the program. Completed topics are shown in white. The current topic is shown in the topic's color from the Student Roadmap. Topics to be completed are in gray.



- **Survey:** The **Survey** button opens the Surveys Screen (page 19) in a separate window. This screen provides access to each of the surveys students have completed so far.

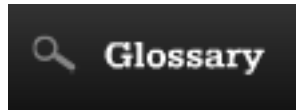


Clicking the name of a survey opens the corresponding Survey Review Screen.



- **Sound:** This turns the audio off or on.





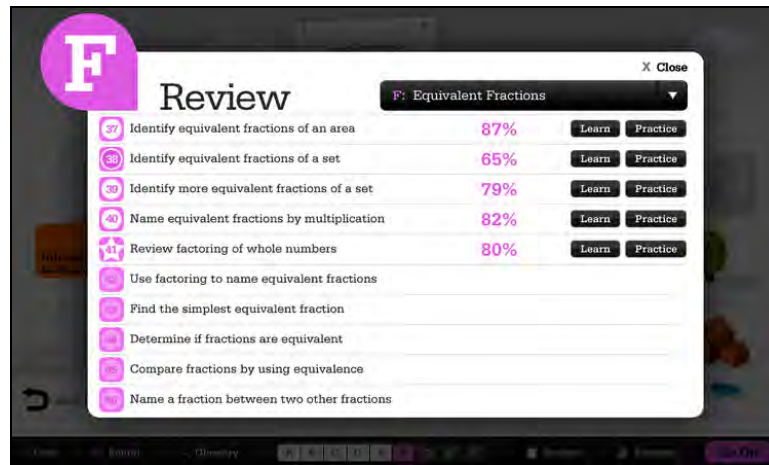
- **Glossary:** The **Glossary** button opens the interactive glossary.



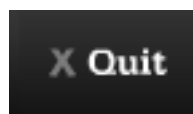
Use the scroll bar to scroll through the word list. Click the letter buttons to access other sections of the glossary. Click the audio button in front of each word to hear the definition aloud. Use the language selection pull-down menu to select English or Spanish definitions, or both. Selecting Spanish definitions also enables the Spanish audio.



- **Review:** The **Review** button opens the Review Screen, which displays students’ scores for every completed lesson. Students may also review any Learn or Practice activity that they’ve already completed.



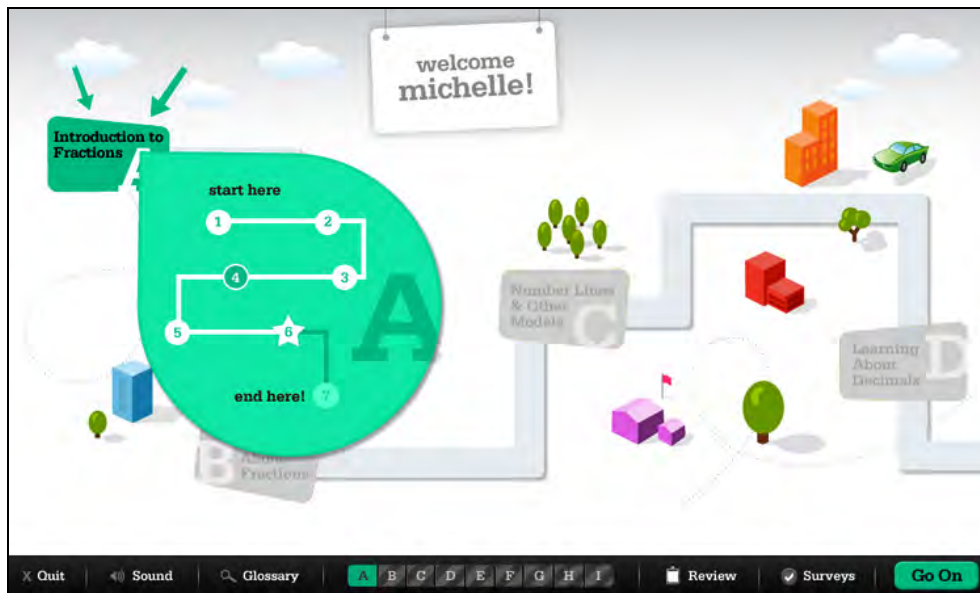
The current lesson is marked by a star. Successfully completed lessons are marked by a solid white circle. Lessons that need to be repeated (page 25) are marked by a dark circle with a white outline. Lessons not yet completed are grayed out. Completed lessons show the **Learn** and **Practice** buttons. Clicking these buttons opens the Learn or Practice activity for that lesson in review mode. Filter the lesson list by selecting a different topic from the pull-down menu.



- **Quit:** Clicking the **Quit** button pauses the current activity and opens a new window confirming that students want to exit the program.

## Lesson Detail Bubbles

On the Student Roadmap, students may use the mouse to roll over a topic and view the Lesson Detail Bubbles for that topic. The Lesson Detail Bubbles show the number of lessons in the topic as well as students' progress and current position.



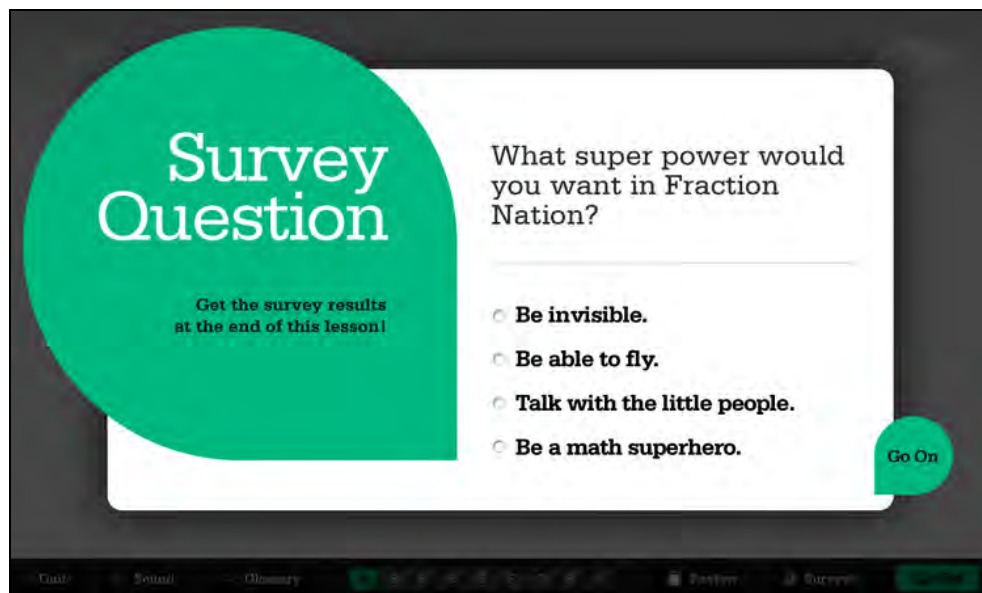
The current lesson is marked by a star. Successfully completed lessons are marked by a solid white circle. Lessons that need to be repeated (*page 25*) are marked by a dark circle with a white outline. Lessons not yet completed are grayed out.

Students may click **Go On** to access their current lesson.

## Lesson Flow

Each of the 64 lessons in Fraction Nation teaches a specific concept or skill. Most students should be able to complete a lesson in one 15-minute session, though there is no time limit. Students may complete more than one lesson in a session, or they may do less than a complete lesson. If a student has to stop midway through a lesson activity (for example, in the middle of Practice), the program will bookmark the location and return the student to the beginning of that lesson activity.

## Survey Question



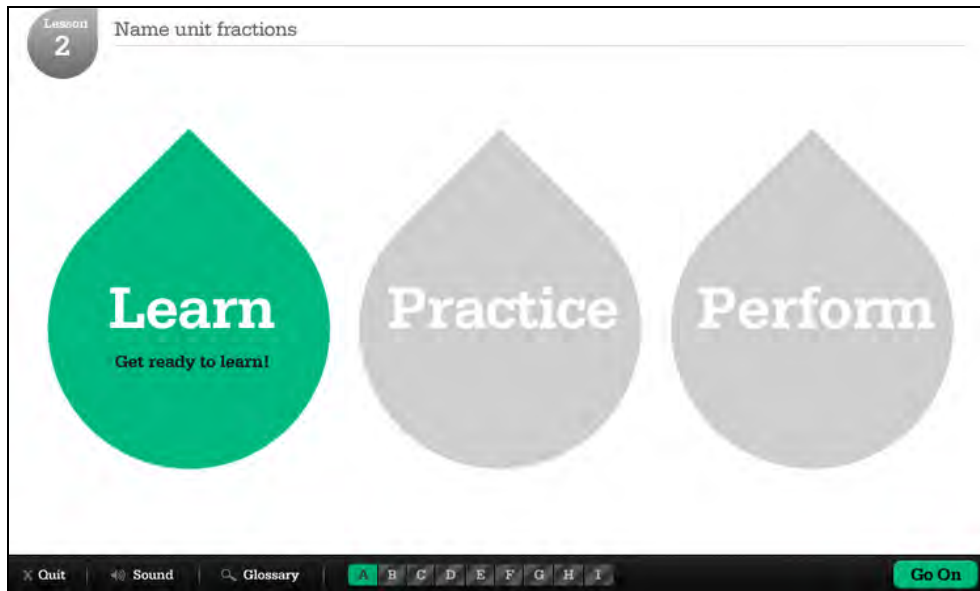
At the beginning of each lesson, students answer a survey question. The question surveys all the students in the school who are working on the particular lesson. When they finish the lesson's Perform activity students see the results of the survey. Surveys engage students' interest while also demonstrating real-world uses of fractions.

To answer the survey students click the radio button next to the desired choice, then click **Go On** to go to the Lesson Screen.

Students may click the **Survey** button on the Navigation bar to see the Survey Results Screen (*page 26*).

## Lesson Home Screen

The Lesson Home Screen displays the number and title of the current lesson and highlights the activity in progress.



Each lesson has three activities:

- **Learn:** In the Learn activity, an instructional animation with an audio voice-over teaches the main concept of the lesson.
- **Practice:** Practice provides guided interactive activities, which allow students to explore visual models in a hands-on manipulative environment. **NOTE:** Some lessons do not include a Practice activity, in which case the Practice teardrop is grayed out and displays the words “No practice today!”
- **Perform:** Perform is a performance assessment that tracks students’ level of mastery in each lesson.

Proceeding through each activity from left to right completes the lesson, which takes approximately 15 minutes.

Click **Go On** to move to the Learn activity.

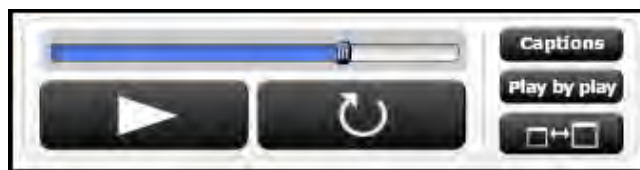
## Learn

Each of the program’s 64 lessons begins with a 1- to 4-minute instructional animation. The animation uses visual models to introduce or extend the lesson’s fraction and decimal concepts.

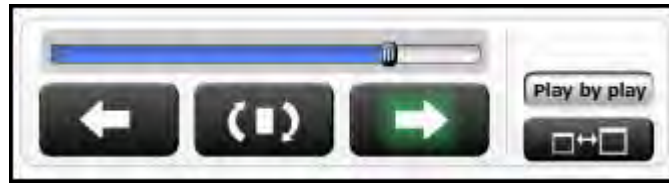


Most instructional animations have stopping points. Students may stop and continue playback after thinking about a concept or question.

Every Learn activity animation displays a set of playback controls:



- **Progress bar:** Drag the slider or click anywhere in the bar to move to that point in the animation. Students may not advance past the farthest frame that they have seen.
- **Pause/Play button:** Click the Pause button to pause an animation. This turns the Pause button into the Play button. Click the Play button to resume the animation.
- **Replay button:** Click the Replay button to replay the entire animation.
- **Captions:** Click **Captions** to show or hide captions for the audio. The default setting hides the captions.

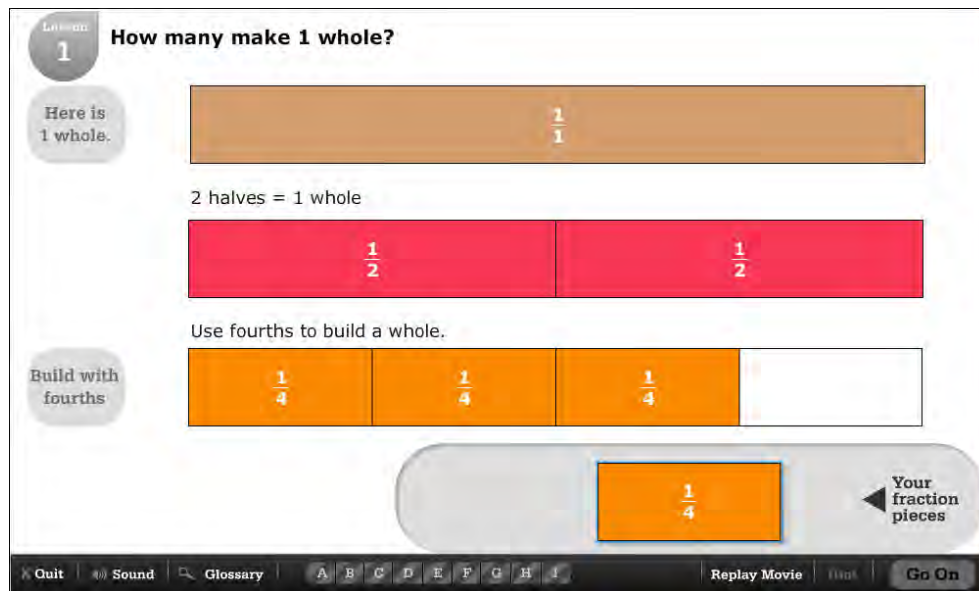


- **Play-by-Play button:** Click this button to step through the animation, one scene at a time, with captions. Clicking this button turns the Pause/Play and Replay buttons to Back, Repeat, and Next buttons. Click the Play-by-Play button again to return to normal Play mode.
- **Full Screen:** Click the Full Screen button to see the animation in full screen mode. Use the Esc button to return to normal mode.

The **Go On** button appears when the animation is finished. Click **Go On** to move to the Practice activity.

## Practice

In the Practice activity, students answer three to eight questions that closely follow the instruction. Practice questions do not count towards students' Lesson Results score.



In the Practice activity, students interact with the visual questions in a variety of ways. Students may construct fraction strips, use denominator words to segment fraction strips, show specific shading on fraction strips, identify equivalent numbers on a number line, and do so much more. Each question has narrated instructions.

After selecting an answer, the **Check It!** button appears. Students may click **Check It!** for feedback. If their answer is incorrect, students see a series of scaffolded responses. If the response is correct, the **Go On** button is activated. Students then receive positive feedback and may click **Go On** to go on to the next problem.

Students may click **Replay Movie** to review the animation or **Hint** for extra help.

When students complete the Practice activity, they may click **Quit** to exit the program or click **Go On** to move on to the Perform activity, where they may demonstrate what they have learned.

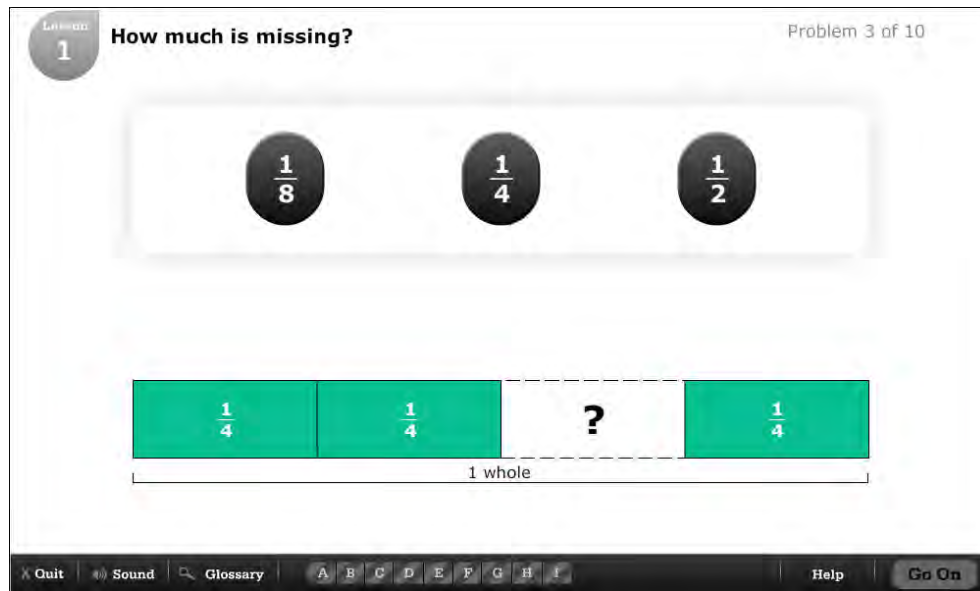
Practice questions adapt to student performance. The program determines each problem to be presented and how many problems a student must solve.

Some lessons, those that briefly review a prerequisite skill or a short consolidation of prior lessons, do not have a Practice activity. In these lessons, the screen displays a “No Practice Today!” message and students go on to the Perform activity.



## Perform

The Perform activity evaluates students' understanding of the lesson's concept. Each Perform activity consists of 20 questions divided into two rounds.



Students use the mouse to answer the questions. Incorrect answers receive corrective feedback and, depending on the question, students may try again to answer the question. Students who respond correctly on their first attempt receive full credit for the question.

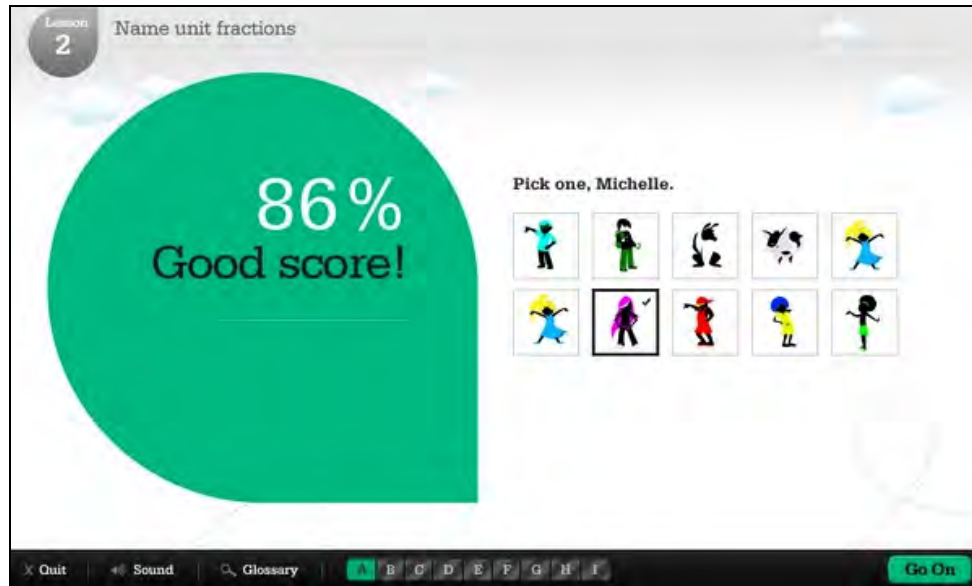
Students click **Go On** to move to the next question. Once students go on to the next question, they may not go back and review or change responses.

The Perform activity consists of two rounds of questions. When students complete the first round of ten questions, they automatically advance to the second round. However, students who correctly answer all the questions in the first round may choose to skip the second round of the assessment.

When all questions are answered, students click **Go On** to see the Lesson Results.

## Lesson Results

The Lesson Results Screen shows students' scores from the Perform activity.

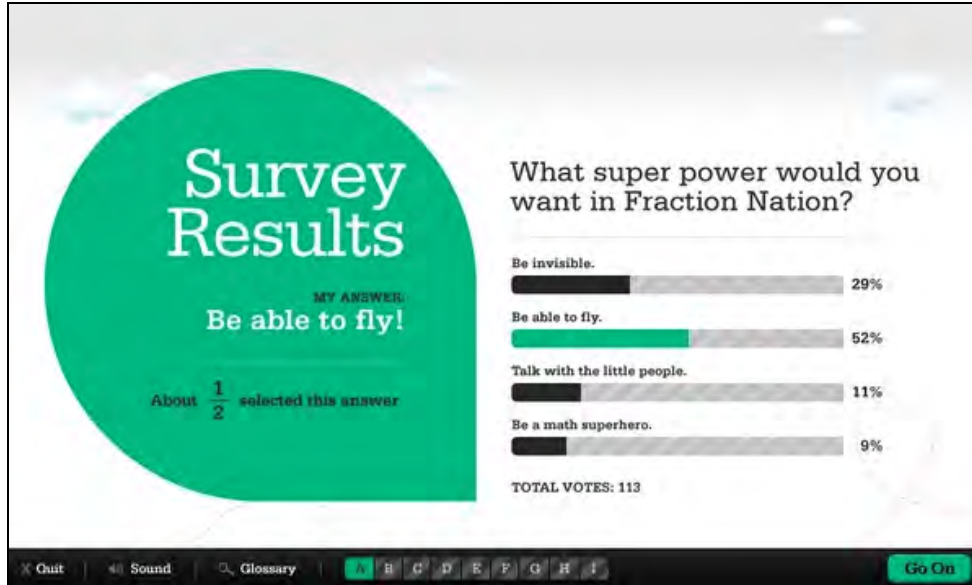


Students who score above 75% pass the lesson and may choose a new citizen to appear on the Student Roadmap. Students who score 75% or lower may try the lesson later to achieve a better score.

If Fraction Nation determines that a student must repeat a lesson, that student may try a lesson three times for a passing score. If the student fails the lesson on the third try, the program provisionally promotes the student and sends an alert message to the teacher through SAM.

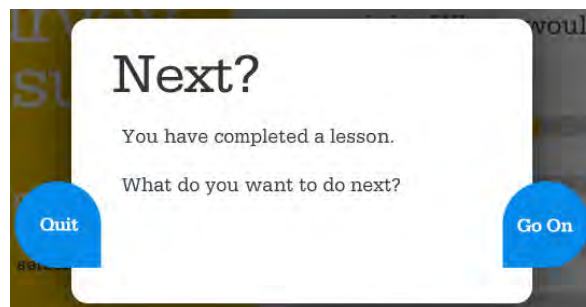
Click **Go On** to move to the Survey Results Screen.

## Survey Results



The Survey Results Screen is the final screen of every lesson. It displays the results of all the students' responses to the survey question presented at the beginning of the lesson. Results are dynamic, changing as more students in the class answer the question.

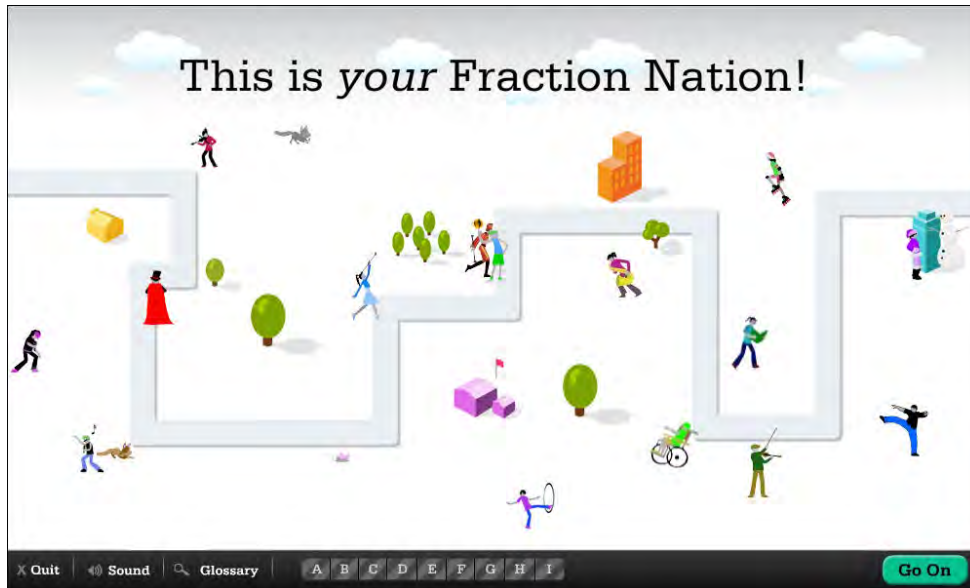
Click **Go On** to leave the Survey Results and move to the What's Next Screen.



Here students may click **Quit** to exit the program or **Go On** to return to the Student Roadmap and go on to the next lesson.

## Program Completion

At the end of the last lesson in Fraction Nation, students see the Program Completion Screen, which includes some of the citizens they selected to populate their nation. The screen congratulates students on finishing all the lessons and celebrates their accomplishment.



From the Program Completion Screen, students click **Go On** to advance to the Final Assessment.

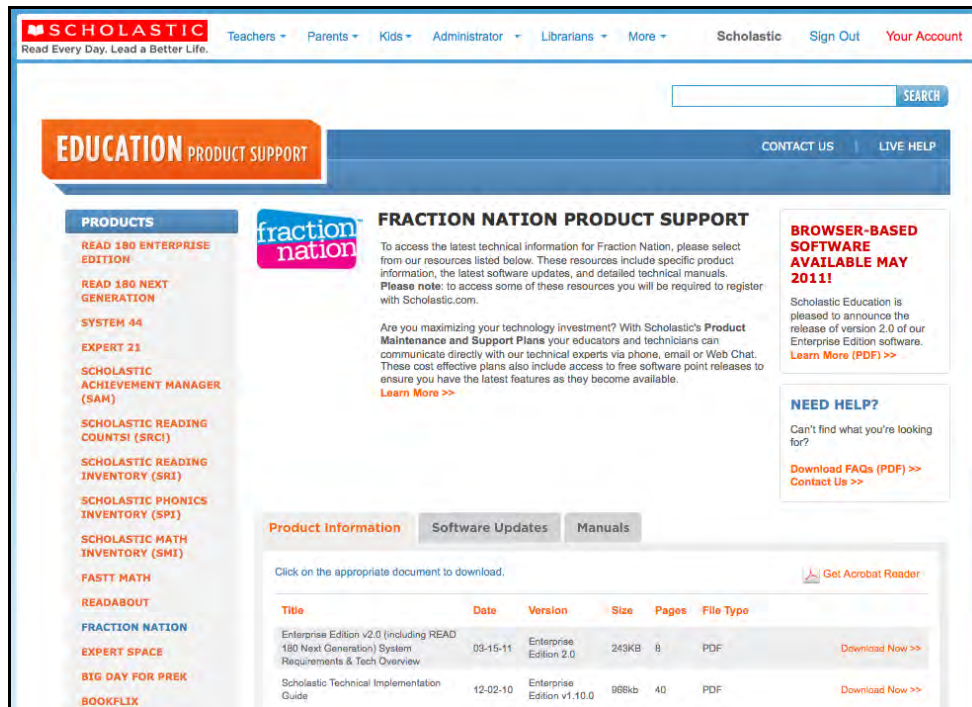
## Final Assessment

The Final Assessment is the same test students took in the Placement Assessment. The purpose of the Final Assessment is to measure how well students have mastered the lessons in the program. It must be completed in one sitting, and should take about 30 minutes to complete.

Teachers may review students' Final Assessment results and compare them to students' Placement Assessment scores in the Placement and Final Assessment Report in SAM (see [SAM Settings and Reports for Fraction Nation](#)). This report provides an overview of students' growth by displaying the two scores side by side.

## Technical Support

For questions or other support needs, visit the [Scholastic Education Product Support](http://www.scholastic.com/fractionnation/productsupport) website at [www.scholastic.com/fractionnation/productsupport](http://www.scholastic.com/fractionnation/productsupport).



**PRODUCTS**

- READ 180 ENTERPRISE EDITION
- READ 180 NEXT GENERATION
- SYSTEM 44
- EXPERT 21
- SCHOLASTIC ACHIEVEMENT MANAGER (SAM)
- SCHOLASTIC READING COUNTS! (SRCI)
- SCHOLASTIC READING INVENTORY (SRI)
- SCHOLASTIC PHONICS INVENTORY (SPI)
- SCHOLASTIC MATH INVENTORY (SMI)
- FASTT MATH
- READABOUT
- FRACTION NATION
- EXPERT SPACE
- BIG DAY FOR PREK
- BOOKFLIX

**FRACTION NATION PRODUCT SUPPORT**

To access the latest technical information for Fraction Nation, please select from our resources listed below. These resources include specific product information, the latest software updates, and detailed technical manuals. Please note to access some of these resources you will be required to register with Scholastic.com.

Are you maximizing your technology investment? With Scholastic's **Product Maintenance and Support Plans** your educators and technicians can communicate directly with our technical experts via phone, email or Web Chat. These cost effective plans also include access to free software point releases to ensure you have the latest features as they become available. [Learn More >>](#)

**BROWSER-BASED SOFTWARE AVAILABLE MAY 2011!**

Scholastic Education is pleased to announce the release of version 2.0 of our Enterprise Edition software. [Learn More \(PDF\) >>](#)

**NEED HELP?**

Can't find what you're looking for?

[Download FAQs \(PDF\) >>](#)  
[Contact Us >>](#)

**Product Information** | Software Updates | Manuals

Click on the appropriate document to download. [Get Acrobat Reader](#)

Title	Date	Version	Size	Pages	File Type	
Enterprise Edition v2.0 (including READ 180 Next Generation) System Requirements & Tech Overview	03-15-11	Enterprise Edition 2.0	243KB	8	PDF	<a href="#">Download Now &gt;&gt;</a>
Scholastic Technical Implementation Guide	12-02-10	Enterprise Edition v1.10.0	968kb	40	PDF	<a href="#">Download Now &gt;&gt;</a>

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 program powered by SAM at:

- 1-800-283-5974 (all EE products)
- 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.