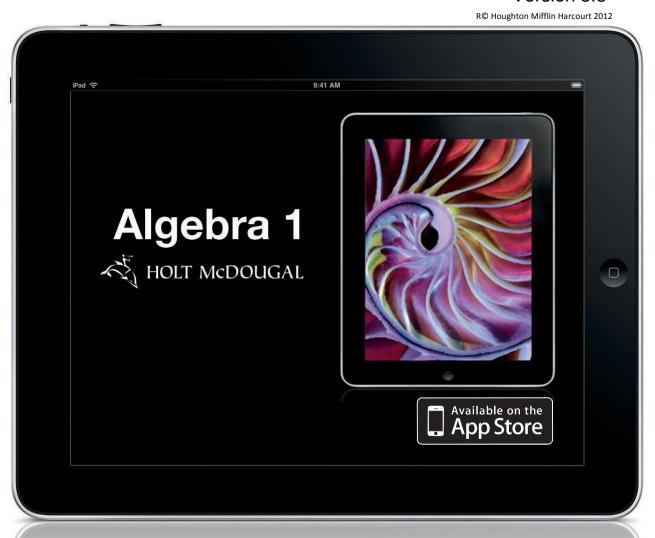




Implementation Guide

Version 5.3





Copyright © by Houghton Mifflin Harcourt Publishing Company

All rights reserved. No part of the material protected by this copyright may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, broadcasting or by any other information storage and retrieval system, without written permission of the copyright owner unless such copying is expressly permitted by federal copyright law.

Permission is hereby granted to individuals using HMH Fuse to print and reproduce this guide for instructional use and not for resale.

HOUGHTON MIFFLIN HARCOURT and the HMH Logo are trademarks and service marks of Houghton Mifflin Harcourt Publishing Company. You shall not display, disparage, dilute or taint Houghton Mifflin Harcourt trademarks and service marks or use any confusingly similar marks, or use Houghton Mifflin Harcourt marks in such a way that would misrepresent the identity of the owner. Any permitted use of Houghton Mifflin Harcourt trademarks and service marks inures to the benefit of Houghton Mifflin Harcourt Publishing Company.

All other trademarks, service marks or registered trademarks appearing on Houghton Mifflin Harcourt Publishing Company websites are the trademarks or service marks of their respective owners.

Apple[®], iPad[®], Mac[®], App Store and iTunes[®] are registered trademarks or service marks of Apple, Inc.

Contents

ntroduction	4
HMH Fuse [™] and iPad [®] Basic Information	6
HMH Fuse [™] Overview	
iPad® Overview	7
mplementing HMH Fuse	8
Recommended Configurations	
General Recommendations	
Getting Started with Fuse	
Steps to Activating HMH Fuse	
Managing Licenses for HMH Fuse	
Large Scale Implementations	
On-Site Deployment for HMH Fuse	15
Frequently Asked Questions (FAQ)	16
Basic iPad Troubleshooting	18
Best Practices for HMH Fuse Implementation	20
Site Readiness	20
Teacher Resource Center	20
Tracking	20
Student Responsibilities	. 21
Insurance	21
Remote Device Tracking	2
Appendix A Site Readiness Form	22
Appendix B Authentication Email	. 24
Appendix C Sample iPad Student Responsibility Pledge/Contract	26
Appendix D iPad Usage Policy and Additional Guidelines for Student Responsibility	27
Appendix E Estimated Content Download Times	29
Appendix F Menu of Deployment Services	30
Appendix G Application Support Contact Information	31
Appendix H IT Specifications	32

Introduction



Welcome to HMH Fuse™

The purpose of this document is to aid you in implementing the *HMH Fuse* application. This guide assumes that you are familiar with using an Apple iPad®. If you need assistance using the iPad, you may download an iPad User Guide specific to your device from the Apple Support link below.

Please keep this guide handy, as you may need to refer to it frequently. You can also download PDFs to iPad as needed, including online Teacher Guides and Reference Guides.

For Technical Support

To obtain help with your HMH Fuse application:

Phone

(800) 419-3900, Select Option 1, then Option 3 Monday – Friday 8:30am to 5:00pm ET, Excluding Holidays

Email

digitalcontent@hmhpub.com

Support Website

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

HMH Fuse Website

http://hmheducation.com/fuse/algebra1/index.php

Download Supplemental Guides:

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

For Apple Support

To obtain help with your iPad:

http://support.apple.com/manuals/#ipad

Light The Fuse Of Learning

Houghton Mifflin Harcourt introduces a revolutionary new education solution— the first set of school-level K–12 Math curricula apps developed exclusively for Apple iPad®.



It's The Right Stuff

PORTABILITY Students can learn in the classroom, on the bus, or at home – anytime, anywhere.

ASSESSABILITY Students can take quizzes to practice, and teachers receive immediate assessment results that enable them to better differentiate instruction.

USABILITY Students have access to instructional videos, vocabulary support, problem-solving animations, and much more – where and when they need it.

HMH Fuse and iPad Basic Information

HMH Fuse Overview

HMH Fuse has replaced yesterday's textbook with tomorrow's all-in-one learning tool. This ground-breaking platform will empower teachers to instruct and coach students using an engaging and interactive medium – the Apple iPad[®].

HMH Fuse includes a set of interactive tools designed to support teaching and learning.

For Algebra apps, these tools include:

- Algebra Tiles for modeling algebraic expressions and equations
- Linear, Exponential, Rational, Radical, and Quadratic Explorers for investigating various transformations
- Function Grapher
- · Comprehensive Algebra Glossary with definitions, illustrations, and audio
- Note-Taking and Scratchpad features that allow students to make text notes, audio recordings, and sketches

For the Geometry app, these tools include:

- 3-D Explorer for investigating a variety of three-dimensional figures using 360 degree rotation and comparing two- and three-dimensional representations.
- Parallelogram Explorer for investigating the conditions for special parallelograms, including rectangles, rhombuses, and squares.
- Transformation and Congruence Explorer for modeling a variety of transformations to explore congruent geometric figures.
- Parallel Lines and Angles Explorer for modeling the relationships among angles formed by a pair of parallel lines and a transversal.
- Similarity Explorer for modeling the relationships of side lengths in similar figures.
- Surface Area and Volume Explorer for modeling the relationships between lengths, areas, and volumes of similar three-dimensional figures.
- Triangle Explorer for modeling different ways to classify triangles by sides and by angles.
- Note-Taking and Scratchpad features that allow students to make text notes, audio recordings, and sketches

TRY IT! To access these tools, just download the free Sample Chapter of any *HMH Fuse* app on the App Store. After download, tools are then found in the navigator at the top of the screen.

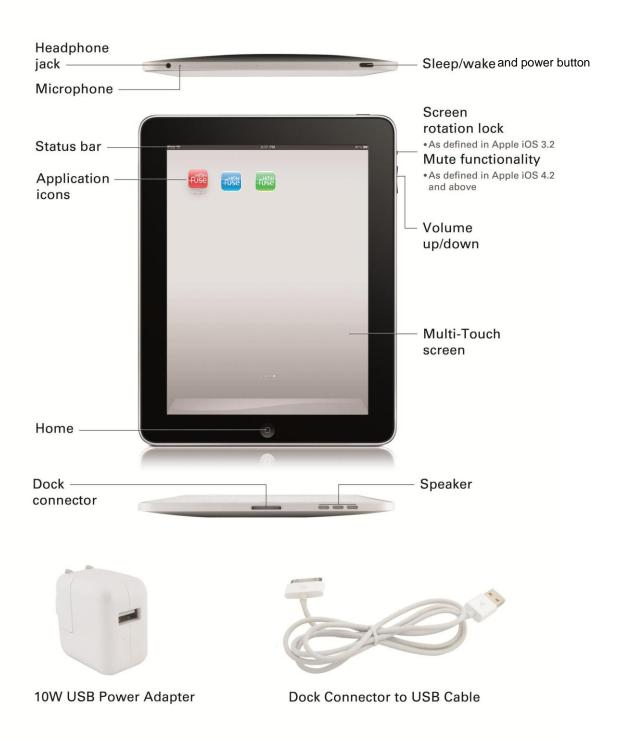
HMH Fuse apps are a set of complete, interactive courses based on the award-winning *Holt McDougal Burger AGA* program. Key features include over 400 instructional videos, instant assessment capabilities, embedded math tools, comprehensive note-taking functionality, homework help and more that provide students a full-scope learning environment while creatively strengthening their computer skills.

iPad Overview

The iPad is a portable tablet computer designed, developed, and marketed by Apple[®]. It is primarily a platform for audio-visual media including books, periodicals, movies, music, games, and web content. The iPad 2 and 'the new iPad' (3) are equally compatible with *HMH Fuse* and contains additional features, such as a camera. However, only the features below are used with *HMH Fuse*.

To access Apple's *iPad User Guide*, go to the website and choose the Guide that applies to your iPad:#

http://support.apple.com/manuals/#ipad



nplementing HMH Fuse

Implementing HMH Fuse

When you're ready to implement *HMH Fuse*, HMH has the information you need to set up the app for your students. We recommend that you use the *Site Readiness Form (Appendix A)* and schedule a review with HMH implementation specialists to be sure that your configurations are set to provide optimum results.

Recommended Configurations

The following are the recommended iPad and computer specifications as of September 1, 2011:

Device Specifications

- · Processor: 1GHz Apple A4 or faster
- Storage: 64GB or larger*
- Wireless/Cellular: Wi-Fi 802.11a/b/g/n (cellular not required)
- Apple iOS4 Version: 4.2.x or Higher

Note: Each HMH Fuse product requires approximately 8GB of storage space on each device. HMH recommends 64 GB of storage available to support additional courses on a single device. Specifications apply to iPad, iPad 2 and 'the new iPad'..

Computer Specifications (Support/Installation)

Mac® System Requirements

- Mac computer with USB 2.0 port
- · Mac OS X Version: 10.5.8 or later
- iTunes® 10.1 or later (free download from www.itunes.com/download)
- iTunes account
- Internet access

Windows System Requirements

- PC with USB 2.0 port
- Windows 7; Windows Vista, or Windows XP Home or Professional with Service Pack 3 or later
- iTunes 10.1 or later (free download from www.itunes.com/download)
- iTunes account
- Internet access

Network Infrastructure Specifications & Recommendations

Wi-Fi – Local Area Network (LAN)

Sufficient Wi-Fi coverage to allow for all areas designated for use with the iPad as stated above; wireless routers or Access Points (APs) that support Wi-Fi protocol levels 802.11a/b/g/n are required to provide the Local Area Network bandwidth for a given number of devices within range of the Wi-Fi router or AP device.

Note: Wi-Fi performance is subject to other devices and or users that could be consuming Internet bandwidth from the same wireless router or AP device. Sufficient DHCP range to support the additional IP addresses for the number of iPad devices in use is required.

- Broadband connectivity service to the Internet
- · High speed DSL
- · High speed CABLE
- T1-T3, Fractional, Multi / Bonded or Better

Firewall IP Protocol Requirements

The *HMH Fuse* application leverages the standard IP protocol stack on the iPad. Services within the application for authentication, registration, teacher reporting, and content downloads initiate a connection to the Internet for the resources it needs. The following hosts, protocols, and ports will need to be accessible through any firewalls that are in place to successfully connect to those resources:

Host	Port
hmhco.vo.llnwd.net	HTTP 80
trc.fuse.hmhco.com/api/	HTTP port 80, HTTPS port 443 (SSL)
secure.riversidepublishing.com	HTTPS port 443 (SSL)
clicker.fuse.hmhco.com	HTTP port 80
Organisation specific	Port 123 – Network Time Protocol Used to retrieve the time from a remote time server.

3G Cellular Data / Internet Connection

If you have a 3G iPad, you will also be able to connect to the Internet using that mode of connectivity—the same network you connect to when using an iPhone or other mobile devices. Even though *HMH Fuse* content downloads will still be accessible using this mode of connectivity, there are a few things to consider:

- Because 3G connection speeds to the Internet are considerably lower than the recommended Wi-Fi Internet connection, much longer content download times can be expected.
- Extra monthly services fees may be charged for access to 3G cellular networks.
- · Monthly charges for additional data consumption are possible.
- HMH Fuse content download packages can be rather large and can quickly consume most data plans rapidly.

Note: Due to the known limitations in 3G bandwidth and performance, HMH Fuse content downloads are not recommended using the 3G Cellular Data Connection.

For the most up to date information on iPad device operations, please refer to your Apple *iPad User Guide*.

General Recommendations

The HMH Fuse Implementation Team recommends the following Best Practices:

- Turn off the Installing Apps and Deleting Apps feature from the settings icon after installing HMH Fuse in order to ensure consistent application access on every student device: Settings>>General>>Restrictions>>Enable restrictions.
- Set passwords on each device, and do not allow the students to change the password from what has been assigned.
- Plug in the device to charge overnight to be sure that the iPad has sufficient battery life for the entire school day.
- · Maintain spare chargers in each classroom.
- Maintain a reserve of devices (10–15%) installed with HMH Fuse in each district for hot swapping during a school year to cover unforeseen issues that may arise with hardware or user error.
- House devices in protective cases to help avoid some accidental hardware issues.
- Have a sufficient number of ear plugs available in each classroom so that students can watch the tutorial videos without disturbing others.

Note: It is strongly advised that users don't run multiple apps in the background while using HMH Fuse. Some of the HMH Fuse features are very content-rich, and doing so may cause the iPad's performance to be less than optimal.

Getting Started with HMH Fuse

Once the Purchase Order (PO) is processed and the order placed, you will receive an email with an "Authentication Code" for each program purchased. When an app is authenticated on an iPad, the user can download the content to that device.

Following successful authentication, the user will be prompted to register in the app. Please note that in order to access the content, the user/student must register in the app. This step requires the following inputs:

- First Name and Last Name this detail will be associated with Fuse quiz results that are posted to the Fuse Teacher Resource Center, where teachers can track their students' progress.
- Date of birth entered in numeric format
- Personal code a user-generated, alpha-numeric, 6-12 character code, .e.g., student ID, last six of SSN, etc.

Note: The Date of Birth and Personal Code are used only as inputs to generate a unique Registration ID for that student. The information is not stored in the Fuse app or on any other systems and the details cannot be derived from the Registration ID.

When the user/student submits these details, the Fuse app generates a unique Registration ID that claims one license associated with the authentication code entered in the previous step.

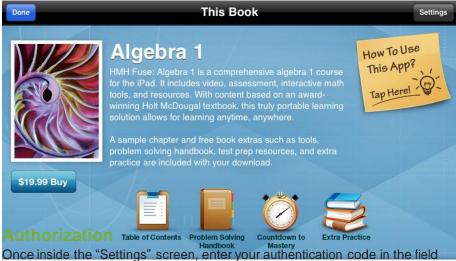
Following successful registration, the Registration screen (in the Settings – accessed via the This Book screen) is updated with 'Deregister' button. This can be used to clear-down a student's name details from the app and free-up the license associated with that student's Registration ID.

Please note that users upgrading from Fuse v.1.x to Fuse v.2.x are required to Register in the app.

Steps to Activating HMH Fuse

Installation

Install the FREE *HMH Fuse* app from the iTunes Store®. The screen below will be the first screen you see.



Tap the "Settings" button at the top right of your screen to begin the authorization process.

provided. This is the code that you received in your after-purchase confirmation email. Please note that this code is case-sensitive.



Enter your authorization code as it appears in the confirmation email, and tap "Submit."

Please note that a wifi connection is required for this process.

Registration

Following a successful authentication you will be navigated automatically to the Registration screen.



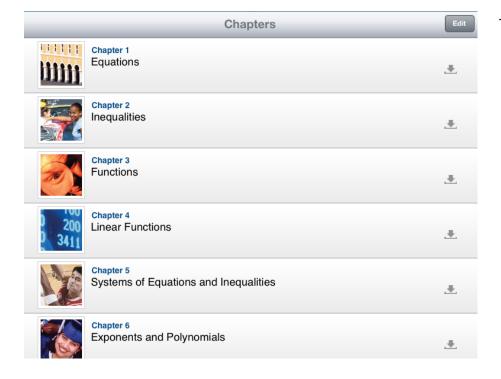
First Name and Last Name will be associated with Fuse quiz results that are posted to the Fuse Teacher Resource Center, where teachers can track their students' progress.

Date of birth – entered in numeric format

Personal code – a user-generated, alpha-numeric, 6-12 character code, .e.g., student ID, last six of SSN, etc.

Accessing the App

On the application 'This Book' homepage, you will now be able to download your *HMH Fuse* product(s) on a chapter-by-chapter basis (all chapters are included in your purchase price). Authentication and registration are required the first time the user accesses an app only, after which additional content can download without repeating these steps.



Tap on the chapter you want to retrieve.

Note: We recommend downloading at least the first 3 chapters needed for instruction.

Select whether you wish to install the chapter content with or without videos.

Note: Video content is large and will take longer to download.



Managing Licenses for HMH Fuse

	General	School owned v's BYO Device
Authenticate	Once an authentication code is successfully entered into a Fuse app, the content for that app can be downloaded to the device. The authentication code is important for associating students with their district/school and in turn collating their quiz results on the Teacher Resource Center.	The authentication code is provided by the school and can be used on both school-owned and BYOD devices.
Register	Users must register in the Fuse app in order to unlock the content on a particular device. The registration process claims a license for each user. Only one user can register per device. Registration is essential to associate a student with their quiz results. Do not register with the same details on more than one device.	The registration process claims a license against the school's authentication code for each user regardless of the whether the user's device is school owned or BYOD.
De-register	De-registering clears-down a user's details from the Fuse app and frees-up a license for that app. Students can de-register directly in the app. After de-registration the app and any downloaded content remain on the device. A new student can subsequently register on the device and unlock the content without having to go through the authentication process and downloading the content again.	The de-registration process frees-up a license against the school's authentication code for each user, regardless of whether the user's device is school owned or BYOD.
De- authenticate	De-authenticating both de-registers the user (see above) and removes the Fuse app content from the device. Students can de-authenticate directly in the app.	
Bulk de- activate	This functionality is executed by an administrator or teacher from the Fuse Teacher Resource Center (http://trc.fuse.hmhco.com). It allows the administator or teacher to select a batch of users and de-activate them without having to do access the users' devices directly. Once the device next connects to the internet, the students will be de-registered on the device and will no longer have access to the content.	A benefit of this process is that schools can free-up licenses for BYOD users when the school no longer has direct access to deregister or de-authenticate in the device.

mplementing *HMH Fuse*

Large Scale Implementations

In the event of a large device deployment, generally over 60 devices, HMH has a secondary method to help facilitate content loading to authenticated devices. When planning such an event, please contact your HMH Sales Representative to get additional details.

Installing HMH Fuse from DVD

After completing an authentication process with your HMH Sales Representative, follow the steps below to download your content via DVD:

- 1. Before you begin, it is vital to set the iPad's Auto-Lock feature to "Never." Otherwise, the iPad may enter sleep mode while the download is taking place and cause problems, such as restarting the download. For information regarding how to set your iPad's features, see your iPad User Guide.
- 2. After installing the app on your iPad, launch it and allow it to perform an initial content installation
- 3. Make sure your iPad is connected to a computer
- 4. Open iTunes on your computer
- 5. In the "Devices" section in the left panel of the iTunes screen, select "iPad"
- 6. In the top menu of the right panel, select the "Apps" button
- 7. In the "File Sharing" section at the bottom of the left panel, select the HMH Fuse app desired.
- 8. Click the "Add" button located below the "[App Name] Documents" list
- 9. Navigate to the location on your computer of the HMH Fuse content packages. Your download will be faster if you first pull the content package from the DVD to your computer desktop, but you may download directly from the DVD if you wish. In the content package you will see multiple zipped archives, (e.g., A1CC_Chapter_01.zip, A1CC_Chapter_01_video.zip, etc.).
- 10. Select the content zip archive files using the "Choose" option to copy the content across to the iPad. Alternatively, drag and drop the content zip archive files into the application's 'Documents' folder within Tunes.
- 11. The device will sync; this may take some time
- 12. Quit the application if it is running. Note: to quit the application, you should do the following:
 - Tap the iPad's 'Home' button once to navigate to the desktop
 - Double-tap 'Home' button again to display a list of running applications at the bottom of the screen
 - Tap-and-hold the Fuse app icon until red minus sign appears on top left corner of the icon
 - Tap the minus sign to quit the app
- 13. Launch the application.
 - The app splash screen will visually reflect the archives installation. This will take some time.

For more detailed instruction and additional resources, go to on the link below, which will direct you to the Technical Support page for *HMH Fuse* on the Houghton Mifflin Harcourt website: http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResult s.html?isid=51885

On-Site Deployment for HMH Fuse

On-Site Deployment Services for HMH Fuse™

HMH Implementation Engineers are available to assist your CTOs with filling out the IT portion of your *Site Readiness Guide* (Appendix A).

On-Site Deployment Services

The following "for purchase" service packages are available to ensure your deployment is smooth and effortless. These include teaching your staff to deploy and support your devices as your program grows. Further information can be found in *Appendix F*. Contact your sales representative for on-site pricing.

Configure iPads®

Work with your IT staff to determine a "Configuration Profile" to deploy to the iPad devices. We will deploy your Configuration Profile to all devices. This includes options such as locking down the iPad interface, configuring iPad Wi-Fi settings, and setting proxy information.

Download the Fuse Application to All Devices

We will:

- Download the HMH Fuse application from the iTunes Store® to all devices.
- Activate the HMH Fuse application on all devices.
- Install all applicable chapters with or without videos to the devices.

Training District Technology Staff on Deployment

We will teach up to 15 participants per trainer within the district technology staff how to configure and deploy Apple iPads with the *HMH Fuse* application.

Implement the Teacher Resource Center

We will:

- Work with the District IT staff to allow necessary reporting ports to be opened in the proxy server and/or firewall.
- Train up to 15 teachers in the district with a train-the-trainer model on getting started with HMH Fuse, including:
 - Setting up Teachers and Classes Adding students and iPad devices Generating reports

Train-the-Trainer Model for Professional Development We will train up to 15 teachers in the district with a *train-the-trainer* model on integrating the iPads into their curriculum with students, including:

Proper use and care of the iPads in the classroom
Use of the iPads outside the classroom
Student Responsibility Pledge
Best integration practices

Frequently Asked Questions (FAQ)

Q: What is HMH Fuse™?

A: The revolutionary award-winning *HMH Fuse* is a highly interactive and engaging curriculum that brings technology into the classroom—and takes the classroom with you wherever you need it. *HMH Fuse* provides a personalized learning experience using hundreds of video tutorials, StepReveal step-by-step examples, homework help, self-quizzes, tips, hints, and many other integrated features to teach, review assess, and remediate all concepts.

Q: What was the process for turning this print textbook into an interactive digital format?

A: HMH Fuse is a complete reimagining of all course content, resources, and tools from the award- winning Holt McDougal Burger AGA program. This transformation required reformatting hardcopy and online resources and integrating them into an engaging, interactive new format to promote kinetic learning, as well as enhancing static illustrations with interactive functionality.

Q: How does this differ from an eBook?

A: HMH Fuse is navigated using the iPad multi-touch environment. It has a three-dimensional format at points where the curriculum provides instruction, assessment, intervention, and ongoing support. Comparatively, an eBook merely displays content with limited additional features; it does not assess answers to quizzes, provide guided instruction, or supply video and audio tutorials for re-teaching.

Q: If my iPad supports 3G, can I download content over 3G networks?

A: While access to subscriber content will be available regardless of your Internet connection mode, downloading content over a 3G connection will be extremely slow. When available, a high bandwidth Wi-Fi connection is recommended, especially when downloading rich media, such as lesson videos and supporting movie clips.

Q: Can I read my books while my device is not connected to the Internet?

A: Yes. An Internet connection is not required to read content already downloaded to the device.

Q: Will the HMH Fuse app run on my computer?

A: No. The HMH Fuse application is currently designed exclusively for use on the iPad.

Q: Where can I find the answers to the homework and tests in HMH Fuse?

A: Answers are available through the "Check Answers" buttons. If you are interested in purchasing other support materials for this program, please contact HMH Customer Service at (800)-419-3900.

Q: How can I find a lesson about a specific topic?

A: Tap anywhere on the screen to open the Navigation bar. This will open at the top of the screen. Tap the *Index* icon. Find the concept you are looking for in the index list at the bottom of the screen, and tap it. Find the appropriate page references, and tap the highlighted page numbers. *HMH Fuse* will take you directly to the appropriate lesson.

Q: What are the features Are You Ready? and Skills Review for, and how do I use them?

A: Are You Ready? is a test of prerequisite skills at the beginning of each chapter. Passing the interactive quiz ensures that a student has the necessary skills to proceed to that chapter. If any sections of the quiz are not passed, HMH Fuse provides instant Skills Review so students can quickly refresh their skills before starting the chapter to achieve greater success in understanding the material.

Q: What is Ready to Go On?, and how do I use it?

A: Ready to Go On? is a quiz over material covered within every previous section. Instant feedback given to students after the quiz points out any areas that they may need to review before moving on to later lessons or preparing for a formal test.

Q: How can I add notes and bookmark content?

A: Tap anywhere on the screen to open the Navigation bar. Tap the *Notes* icon. The Notes tool opens. This tool allows you add a text or audio note anywhere you wish in the content. Opening the tool and tapping the "Go to page" button allows you to instantly return to the location of each note. Swiping across a note reveals the delete button to remove that note.

Q: What should I do if the Scratchpad is too small/too large?

A: Use your finger to drag the top bar of the Scratchpad up and down to adjust its size.

Q: How do I quickly remove content from the application?

A: Tap anywhere on the screen to open the Navigation bar. Tap the *This Book* icon. Tap the "Edit" button on the far right of the chapter Table of Contents. A "Delete" button appears beside each chapter. Tap the button next to the chapter you wish to delete. You can delete content at any time.

Q: Are there extra instructional tools I can access?

A: Tap anywhere on the screen to open the Navigation bar. Tapping the *Tools* icon gives you access to a range of easy-to-use math tools.

Q: How do I access non-chapter-related content?

A: Tap anywhere on the screen to open the Navigation bar. Tap the *This Book* icon. From the top panel you access to a range of extra content, such as a problem solving handbook and extra practice modules.

Basic iPad Troubleshooting

Turning the iPad Off and On Again

To resolve most unexpected issues, turn the iPad off, and then turn it on again. Press and hold the "Sleep/Wake" button until a red slider appears, then drag the slider. Then press and hold the "Sleep/Wake" button again until the Apple logo appears.

In the event of an application freeze or other unexpected behavior from *HMH Fuse*, please attempt this step first as most problems are resolved by simply restarting your iPad.

The iPad Does Not Respond

The iPad may be low on power. Charge the iPad for at least 10 minutes prior to using it.

Low-Battery Image or "Not Charging" Message Appears

The iPad is low on power and needs to be charged up to ten minutes before it can be used. The best way to charge the iPad battery is to connect your iPad to a power outlet using the included Dock Connector to USB cable and 10W USB power adapter (often already attached, forming one cable). For faster charging, turn the iPad off.

Note: The iPad may not charge when connected to the USB port on an older Mac or PC, a keyboard, or to a USB hub.

Force an Application to Quit

Press and hold the "Sleep/Wake button" for a few seconds until a red slider appears, then press and hold the "Home" button until the application quits and returns you to the *Home* screen.

Taking Screenshots

When calling or emailing Technical Support, it may be helpful to provide screenshots showing the issue being faced. To take a screenshot, press and hold the "Sleep/Wake" button and press the "Home" button simultaneously. The screen will flash and a camera 'click' sound will be heard. You can then email your screenshot to Technical Support using the steps below.

Emailing Screenshots

Follow these steps:

- Launch the Photos app. The screenshot taken will appear as a thumbnail in the app.
- Tap the thumbnail to view the screenshot.
- Tap the Arrow button in the upper-right corner while viewing the screenshot. The photo options will be listed.
- Select Email Photo. A new e-mail will be started with the image attached.
- Enter your own e-mail address to send the screenshot to yourself or the email address where you want to send it.
- The e-mail will be sent.

Note: Remember, when sending a screenshot to tech support at techsupport@hmhpub.com, please send an adequate explanation in the subject line.

Resetting the iPad

To resolve the most serious issues with the iPad or applications on the iPad, reset the iPad and try the action or application again. To do this, press and hold both the "Sleep/Wake" button and the "Home" button simultaneously for at least 10 seconds. Release the buttons when the Apple logo appears.

Warning: Resetting your iPad will restore factory defaults and erase content from your iPad. Please refer to your iPad manual before attempting this step. This will require access to a computer to complete installation.

Houghton Mifflin Harcourt Technical Support

Contact Houghton Mifflin Harcourt Technical Support for any questions regarding *HMH Fuse*™ at:

Phone

(800) 419-3900, Select Option 1, then Option 3 Monday – Friday 8:30am to 5:00pm ET, Excluding Holidays

Email

digitalcontent@hmhpub.com

Support Website

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

HMH Fuse Website

http://hmheducation.com/fuse/algebra1/index.php

Download Supplemental Guides:

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

For Apple Support

To obtain help with your iPad:

http://support.apple.com/manuals/#ipad

Best Practices for HMH Fuse Implementation

Site Readiness

As is the case with all technology implementations in an educational setting, special attention must be paid to adequate advance planning for site infrastructure, security and support in order to maintain the highest level of student and teacher engagement and utilization. As such, HMH advises each customer to evaluate their readiness and capacity to effectively implement *HMH Fuse* in their classrooms. See *Appendix A* for a *Site Readiness Form* that can be filled out and reviewed with HMH Implementation personnel to help make your deployment a success. Please contact your HMH Sales Representative for more information.

Teacher Resource Center

A major free benefit of *HMH Fuse*, is the capability to send assessment data from every device to a central *Teacher Resource Center* located at http://www.hmheducation.com/fuse/reporting.

When properly configured, this site will allow district administrators, principals, and teachers a LIVE view into student performance and understanding of key curriculum concepts.

As an organization implementing *HMH Fuse*, it is advised to set-up the *Teacher Resource Center* before students receive their assigned devices. A successful implementation of the *Teacher Resource Center* relies on schools, teachers, classes and students being correctly configured at the onset of any deployment.

Download the *Teacher Resource Center Guide* to view full details on the TRC and step-by-step examples of set-up Best Practices at the Product Support website:

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

Tracking

HMH strongly suggests that each district closely track the following information for each iPad device deployed:

- UDID
- Serial Number
- Student Deployed to
- District Unique Identifier*
- * In practical application, both the UDID and serial number are too complex to be used effectively in a labeling system. A simpler, unique form can be used more effectively. For example, RUSD_0017 could be used to mark the back of a iPad or iPad Case (either with permanent marker, and/or ultraviolet security ink).

Student Responsibilities

One of the greatest challenges students will face using *HMH Fuse* is the responsible use and care of their iPads. HMH recommends that each institution require all students to sign a pledge governing that usage. This pledge provides guidelines and expectations for the student that will make it much easier for the student to meet and exceed the expectations of the instructor, the school, and the district. For a sample student pledge, see *Appendix C*.

Insurance

The unnecessary loss or damage of any device supporting *HMH Fuse* can be both costly and time consuming. Such a loss could also negatively impact the learning of the student utilizing the device. As such, HMH recommends that each institution properly insure their devices against potential device loss. While HMH does not endorse any insurance agency, we can suggest insurance alternatives if current institutional options are unavailable. Please contact your HMH Sales Representative for more information.

Remote Device Tracking

Due to the value associated with iPad devices, it is recommended that each district use a device tracking application on every device deployed into classrooms. Such applications occasionally ping a server when connected to a Wi-Fi network, and each device can be tracked via an external website or secondary application. While HMH does not in any way endorse any specific product, the following are possible options:

- Find my iPhone[®]
- Device Locator
- Tracker Pro for iPhone®

Appendix A Site Readiness Form

Sales Information:

District and School Information								
District Name:								
School Name:								
City:				State	:		Zip:	
District Techr	nical Contact	Name:	1					
Phone Numb	er:				Emai	l:		
District Curri	culum Contac	ct Nam	e:					
Phone Number	er:				Email:			
IT Information:								
Local Area No		Inform	ation	T				
Speed	□10Mbps	□ 100	0 Mbps	□ 1000I	Mbps	□Fiber	Fibe	r Speed:
	Other (De	scriptio	on and s	speed):				
Average Utiliz	zation			Per-day	Percen	tage		
Concurrent C	onnections (all Devi	ices)	Estimat	ed num	ber		
Wide Area Ne	twork (WAN)							
Speed	□10Mbps	_ 1 _ 1		□1000N	/lbps	□Fiber	Fibe	er Speed:
□1.5 Mbps (T1)		Other (Description and speed):		speed):				
School Connections to WAN		□Equal	qual					
Average Utilization			Per-Day Percentage					
Concurrent C	onnections (all devi	ces)	Estimated Number				
Proxy Servers	□No □Yes		Description:					
Caching Servers	□No	⊒No □Yes		Description				
Web Connectivity Information								
Speed □Dial-up □DSL/C		Cable [⊒ ⊤1	□т:	3			
Other Description And		d Speed:		□Fi	ber Fi	iber Speed		
Connection(s) Per District Per So		chool		I				
() = ()		Percenta	age					
	Voice-over-IP ☐Yes ☐No							

Wi-Fi Information					
Speed	Па	□в	□G		
☐Other Description And Speed:					
Average Devices Per	Hotspot	Estimated Number			
Average Utilization		Per-Day Percentage			
iPad® and Networking / Wi-Fi Requirements Recommendations Please review Recommendations for <i>HMH Fuse</i> as put forth in the Implementation Guide, available at: http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885					
District Responsibiliti Check each box as an i		e of responsibility.			
 ☐ I understand that Houghton Mifflin Harcourt shall not be responsible for any damages or losses related to devices. ☐ I understand that it is recommended to keep additional iPad devices on hand as spares in the event of loss, damage or technical issues to minimize classroom disruption. 					
Review I have read the Technical Specifications outlined in this document and at the above links. I understand that these hardware and network recommendations should be followed for optimal performance of the HMH product. Failure to conform to the recommendations contained in this document could result in less than satisfactory performance. To the best of my knowledge, all workstations and servers meet the requirements listed in this technical specification.					
Technical Contact Signature:					
Technical Contact Name:					
Technical Contact Title:					

ПΝ

Appendix B Authentication Email Sample

Dear Houghton Mifflin Harcourt Customer,

Thank you for your order of HMH Fuse™, the world's first comprehensive curriculum solution for iPad®. This email contains the Authentication Code that you will use to activate your HMH Fuse content. Please save or print this e-mail for future reference.

YOUR ORDER

Please review your order carefully. If there are any discrepancies, please notify our Customer Experience Department at (800) 225-5425. Please have available:

- Your District or Institution Name: MY HIGH SCHOOL
- Your Order #: 123456
- Customer PO #: HIGHSCHUL
- Customer Email Address:123abc@hmhpub.com

Product Name	Device Quantity	Authentication Code
HMD ALG1 FUSE 2011	47	4535122345678

Due to the nature of this product, please keep in mind that licensing is by device, so you must have enough devices and licenses to cover both student and teacher needs. In addition, HMH encourages users of HMH Fuse to maintain a reserve count of devices and licenses to support standard implementation and hardware management procedures.

STEPS TO ACTIVATING YOUR HMH FUSE PRODUCT(S)

First, install the FREE *HMH Fuse* app from the Apple App StoreSM.

Once inside the *HMH Fuse* app, press the Settings Button on upper right hand side of the menu bar to enter your Authentication Code into the box provided and click done. Each authentication code will need to be entered separately if you purchased multiple programs.

You will now be able to download your HMH Fuse product(s) on a chapter-by-chapter basis.

GETTING STARTED

Once you have authenticated your device, the following steps need to be completed to successfully access the content in the app:

- From the Table of Contents, select the chapter you want to download.
- Select whether you wish to install the chapter content with or without videos. Video content is large and will take longer to download. PLEASE NOTE: Due to the number of rich-media elements in HMH Fuse, such as the hundreds of tutorial videos incorporated into the content, the download time will be much greater than that of standard apps.

Should you be on a time constraint, it is suggested that you download chapters without video first, then download the chapter videos that you need. Any chapters may be downloaded at a future time with wireless access.

TEACHER RESOURCE CENTER

As part of your purchase of *HMH Fuse*, you will gain access to the Teacher Resource Center [TRC]. This system allows student assessments taken within the HMH Fuse application to be captured through Wi-Fi and accessed remotely by teachers and administrators. Below, you will find the link to the TRC. The District Administrator or a District representative will set up Districts, Schools, and Teachers manually. Administrators or Teachers may enter Students either manually or through a spreadsheet import as described in the TRC Website below:

http://www.hmheducation.com/fuse/reporting

HMH FUSE GUIDES

For more detailed instruction and additional resources, go to the link below to access the *HMH Fuse* Technical Support page on the Houghton Mifflin Harcourt website, where there are a number of Guides available for download. These include:

- The HMH Fuse Reference Guide
- The HMH Fuse Common Core Reference Guide
- The HMH Fuse Implementation Guide
- The HMH Fuse Teacher Resource Center Guide

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

Appendix C Sample iPad Student Responsibility Pledge/Contract

Student Name:
iPad® device serial number:
I acknowledge receiving the Apple iPad® device referenced above for use while I remain in the Houghton Mifflin Harcourt Program at
I have read the attached iPad Usage Policy and Additional Guidelines for Student Responsibility. In order to maintain the privilege of using this iPad device, I agree to the following:
(Student: Initial each line, please)
I agree to keep this iPad device in my possession at all times. I will not give or lend it to anyone except to return it to the School for upgrades or network connection repair in case it is damaged.
☐I agree to carry this iPad device in a padded case or backpack to minimize the chances that it will be damaged or destroyed.
☐I agree to follow the iPad Usage Policy and Additional Guidelines for Student Responsibility, and will not use this iPad, in or out of School, for inappropriate or unlawful purposes. I understand that the School and Houghton Mifflin Harcourt will fully cooperate with all relevant authorities in investigating and prosecuting any unlawful use.
☐I understand that if this iPad device is lost or stolen I will immediately notify the School. I understand that neither the School nor Houghton Mifflin Harcourt shall be responsible for any damages or losses related to this iPad device. Any costs associated with instances of loss, theft or damage will be the full responsibility of the student and his/her parent/guardian.
I agree to return this iPad device to the School at the conclusion of the program (or earlier if I should leave the program).
☐I agree to keep this iPad device adequately charged for school usage.
☐I understand that failure to comply with any of these rules and policies will result in the suspension of my use of this iPad device.
Student Signature:
Date:
Parent/Guardian Signature:
Date:

Appendix D iPad® Usage Policy and Additional Guidelines for Student Responsibility

- Use of this iPad® device is subject to the School's policy on Acceptable
 Use of Technology Resources (based on Rules and Regulations 6163.4)
 and related policies.
- 2. Only licensed software may be installed onto this iPad device. If the Student requires special or non-standard software to be installed on this iPad device for School use, the installation must be cleared by the School beforehand. The Student will be responsible for supplying licenses, media, and any documentation.
- 3. For network connection of iPad devices, the Student is provided with a dedicated account. The Student is to use no other account on the network. The Student should at all times keep any passwords for this account secure and private. The Student takes full responsibility for the use or misuse of this account and the iPad device.
- 4. This account allows the Student certain privileges and rights on the network. The Student should in no way attempt to gain other privileges or to attempt to access resources on the network to which no explicit rights have been granted.
- 5. The Student shall not in any way, tamper or misuse school equipment, either software or hardware. No form of tampering is acceptable.
- 6. Student may not download copyrighted software, audio or video files, or any other copyrighted material from the Internet. Any such material found will be deleted without prior notification.
- 7. Software in use in the School is licensed in a correct and legal manner. However (except where explicitly stated), it is not available to the Student for home usage. Student should make no attempt to copy licensed or copyrighted material from the School network.
- 8. The Wi-Fi facilities are for the Program related educational use only. The Wi-Fi facilities are not available for use on external projects or for work activities not associated directly with courses or the Program. Wi-Fi facilities may not be used for any form of personal financial gain.
- This iPad device and its contents remain the property of the School. No data stored on this iPad device is personal or private and the Student has no reasonable expectation of privacy in such data.
- 10. Food and drinks should be kept well away from iPad devices. The Student should also take care when shutting down and closing the lid of iPad cases to ensure that nothing is left lying on top of the iPad device's surface. Resulting damage to the iPad device may not be covered by Apple's warranties, and the Student may be liable for repair costs.

Use of iPad resources are granted based on the Student's acceptance of the following specific responsibilities:

Use only those computing and information technology resources for which you have authorization. For example, it is a violation:

- · to use resources that you have not been specifically authorized to use
- to use someone else's account or password or share your account or password with someone else
- · to access files, data or processes without authorization; or
- to purposely look for or exploit security flaws to gain system or data access.

Use computing and information technology resources only for their intended purpose. For example, it is a violation:

- · to send forged email
- to misuse Chat or other communications software that appears to allow students to hide their identity or to interfere with other systems or students
- to use electronic resources for harassment or stalking other individuals
- to send bomb threats or "hoax messages"
- · to send chain letters
- to intercept or monitor any network communications not intended for you
- to use computing or network resources for advertising or other commercial purposes to attempt to circumvent security mechanisms.

Protect the access and integrity of computing and information technology resources. For example, it is a violation:

- · to release a virus or worm that damages or harms a system or network
- to prevent others from accessing an authorized service
- to send email bombs that may cause problems and disrupt service for other students
- · to attempt to deliberately degrade performance or deny service
- · to corrupt or misuse information, or
- to alter or destroy information without authorization.

Abide by applicable laws and school policies and respect the copyrights and intellectual property rights of others, including the legal use of copyrighted software. For example, it is a violation:

- to make more copies of licensed software than the license allows
- · to download, use, or distribute pirated software
- to operate or participate in pyramid schemes
- to distribute pornography to minors
- to upload, download, distribute, or possess child pornography.

Respect the privacy and personal rights of others. For example, it is a violation:

- to tap a phone line or run a network sniffer without authorization
- to access or attempt to access another individual's password or data without explicit authorization
- to access or copy another student's electronic mail, data, programs, or other files without permission.

Breach of the Usage Policy and Guidelines may lead to disciplinary action.

Appendix E Estimated Content Download Times

The table below reflects estimated download times for *HMH Fuse*[™] content packages. Calculations are estimated based on some common Internet connectivity provisions available, not to be regarded as an exhaustive list, using average *HMH Fuse* content package sizes.

Internet Connection	Content Type	Estimated Download Time
C40 K DCL Limbs	Chapter Content	3 min – 16 min
640 K DSL Light	Chapter Video	35 min – 1 hr 44 min
Fractional 769K T1	Chapter Content	3 min – 12 min
Fractional 768K T1	Chapter Video	28 min – 1 hr 15 min
T4/D04 D01 4 54M	Chapter Content	30 sec – 6 min
T1/DS1, DSL 1.54Mb	Chapter Video	5 min – 35 min
Ethernet / Coble 10Mb	Chapter Content	5 sec – 41 sec
Ethernet / Cable 10Mb	Chapter Video	15 sec – 3 min
3G Wireless** **not recommended	Chapter Content	10 min – 22 min
	Chapter Video	40 min – 1 hr 35 min

Please note that these estimates are calculated and that download performance is subject to many other contributing factors, such as:

- Number of users or devices on the network competing for Internet bandwidth
- Internet latency issues based on location and or quality of the terrestrial network or provider used
- Other applications running on the device using Internet connectivity
- Available battery life
- Physical obstacles between the devices and the location wireless routers or access point it is connected to

Appendix F Menu of Deployment Services

HMH can help you with every aspect of your deployment of the *HMH Fuse*™ application onto Apple iPads®. We have a staff of Implementation Engineers ready to assist you to whatever degree you need to achieve the greatest success with your deployment and your maximum staff comfort-level.

For more information and pricing on the **Deployment Packages** below, contact your HMH Sales Representative or call Customer Service at 888.327.2906.

Separate **Professional Development Packages** are also available to train teachers on how to best bring *HMH Fuse* technology into the classroom. Further information on these packages can be found at: http://www.hmheducation.com/professionaldevelopment

Silver Package

On-site Field Engineer for 2 days (ISBN: 978-0547734965)

We will:

- Sit down with your IT staff to determine a "Configuration Profile" to deploy to the iPad devices. We will assist in configuring the Profile and instruct your staff on how to deploy the application.
- Download and activate the HMH Fuse application from the iTunes Store® to 6 devices and train your staff how to deploy the remaining devices.
- Train your staff how to install all applicable chapters with or without videos to the devices.
- Work with the District IT staff to allow necessary reporting ports to be opened in the proxy server and/or firewall.
- Test 6 devices and the application from classrooms in the district and instruct the IT staff on common technical support issues and remedies.

Gold Package

On-site Field Engineer for 5 days (ISBN: 978-0547734941)

We will:

- Sit down with your IT staff to determine a "Configuration Profile" to deploy to the iPad devices, deploy the Configuration Profile to 90 devices, and instruct your staff on how to deploy the application to all devices.
- Download and activate the HMH Fuse application from the iTunes Store to 90 devices and train your staff how to deploy the remaining devices.
- Install all applicable chapters with or without videos to the 90 devices.
- Teach up to 15 participants with the District technology staff how to configure and deploy Apple iPads with the HMH Fuse application.
- Work with the District IT staff to allow necessary reporting ports to be opened in the proxy server and/or firewall.
- Monitor the first day of students and teachers using the iPads and provide technical support.

Platinum Package Custom iPad deployment

and training

(ISBN: 978-0547734958) charged in per day increments with a three day minimum

We will sit down with your school district and determine a custom implementation deployment across the district, including configuring and deploying all devices, and training the IT staff on deployment and support. We will also provide on-site technical support to ensure everything is working properly and the teachers and students are using HMH Fuse successfully.

Appendix G Application Support Contact Information

HMH is dedicated to providing support to all its HMH Fuse customers. Teachers and administrators can contact Houghton Mifflin Harcourt Technical Support for any question or issue using the iPad® or HMH Fuse™.

Phone

(800) 419-3900, Select Option 1, then Option 3 Monday – Friday 8:30am to 5:00pm ET, Excluding Holidays

Email

digitalcontent@hmhpub.com

Support Website

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

HMH Fuse Website

http://hmheducation.com/fuse/algebra1/index.php

Download Supplemental Guides:

http://customercare.hmhco.com/product/techsupport/CCTechSupportSearchResults.html?isid=51885

Appendix H IT Specifications

Recommended Configurations

The following are the recommended iPad® and computer specifications as of March 11, 2011:

Device Specifications

· Processor: 1GHz Apple A4 or faster

Storage: 64GB or larger*

Wireless/Cellular: Wi-Fi 802.11a/b/g/n (cellular not required)

Apple iOS4 Version: 4.2.x or Higher

Note: HMH Fuse: Algebra 1 course content requires 8GB of storage space on each device. HMH recommends 64 GB of storage available to support additional courses on a single device. Specifications apply to both iPad and iPad 2.

Computer Specifications (Support/Installation)

Mac System Requirements

- Mac computer with USB 2.0 port
- · Mac OS X v 10.5.8 or later
- iTunes 10.1 or later (free download from www.itunes.com/download)
- · iTunes account
- Internet access

Windows System Requirements

- PC with USB 2.0 port
- Windows 7; Windows Vista, or Windows XP Home or Profession with Service Pack 3 or later
- iTunes 10.1 or later (free download from www.itunes.com/download)
- · iTunes account
- Internet access

Network Infrastructure Specifications & Recommendations

Wi-Fi—Local Area Network (LAN)

Sufficient Wi-Fi coverage to allow for all areas designated for use with the iPad as stated above; wireless routers or Access Points (APs) that support Wi-Fi protocol levels 802.11a/b/g/n are required to provide the Local Area network bandwidth for a given number of devices within range of the Wi-Fi router or AP device.

Note: Wi-Fi performance is subject to other devices and or users that could be consuming Internet bandwidth from the same wireless router or AP device. Sufficient DHCP range to support the additional IP addresses for the number of iPad devices in use is required.

Internet Connectivity—Wide Area Network (WAN)

- Broadband connectivity service to the Internet
- High Speed DSL
- High Speed CABLE
- T1–T3, Fractional, Multi / Bonded or Better

Firewall IP Protocol Requirements

The HMH Fuse™ application leverages the standard IP protocol stack on the iPad. Services within the application for authentication, teacher reporting, and content downloads initiate a connection to the Internet for the resources it needs. The following hosts, protocols, and ports will need to be accessible through any firewalls that are in place to successfully connect to those resources:

Host	Port
hmhco.vo.llnwd.net	HTTP 80
trc.fuse.hmhco.com/api/	HTTP port 80, HTTPS port 443 (SSL)
secure.riversidepublishing.com	HTTPS port 443 (SSL)
clicker.fuse.hmhco.com	HTTP port 80
Organisation specific	Port 123 – Network Time Protocol
	Used to retrieve the time from a remote time server.

3G Cellular Data / Internet Connection

If you have a 3G iPad, you will also be able to connect to the Internet using that mode of connectivity—the same network you connect to when using an iPhone or other mobile devices. Even though *HMH Fuse* content downloads will still be accessible using this mode of connectivity, there are a few things to consider:

- Because 3G connection speeds to the Internet are considerably lower than the recommended Wi-Fi Internet connection, much longer content download times can be expected
- Extra monthly services fees may be charged for access to 3G cellular networks
- · Monthly charges for additional data consumption are possible
- HMH Fuse content download packages can be rather large and can quickly consume most data plans rapidly.

Note: Due to the known limitations in 3G bandwidth and performance, HMH Fuse content downloads are not recommended using the 3G Cellular Data Connection.

For the most up to date information on iPad device operations, please refer to: http://support.apple.com/manuals/#ipad

General Recommendations

The HMH Fuse Implementation Team recommends the following Best Practices:

- Turn off the Installing Apps and Deleting Apps feature from the settings icon after installing HMH Fuse in order to ensure consistent application access on every student device: Settings>>General>>Restrictions>>Enable restrictions.
- Set passwords on each device, and do not allow the students to change the password from what has been assigned.
- Plug in the device to charge overnight to be sure that the iPad has sufficient battery life for the entire school day.
- · Maintain spare chargers in each classroom.
- Maintain a reserve of devices (10–15%) installed with HMH Fuse in each district for hot swapping during a school year to cover unforeseen issues that may arise with hardware or user error.
- · House devices in protective cases to help avoid some accidental hardware issues.
- Have a sufficient number of ear plugs available in each classroom so that students can watch the tutorial videos without disturbing others.

Note: It is strongly advised that users do not run multiple apps in the background while using HMH Fuse. Some of the HMH Fuse features are very content-rich, and doing so may cause the iPad's performance to be less than optimal.