

# ISLE Open Educational Resources

## <http://ioer.ilsharedlearning.org>

Overview for Illinois State Board of Education

June 2015

Presented by Jeanne Kitchens, Associate Director, SIU  
Center for Workforce Development

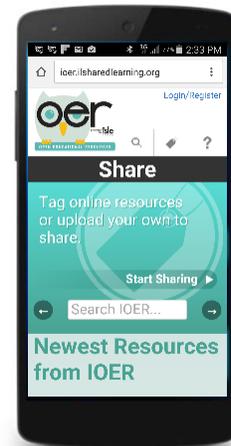


Sponsored by Illinois Department of  
Commerce and Economic Opportunity  
and Illinois State Board of Education



## IOER Overview

- Introduction
- Partners and Collaboration
- Open Technologies and Data Schemas
- What OER Offers Now
- OER Roadmap



## SIU CWD “workNet Team” Experience Examples

Design, develop, maintain enterprise web applications and provide technical assistance, program management, and facilitation services for statewide programs:

- National Credential Registry
- JTED/SNAP Training and Employment Program
- State’s workforce portal, Illinois workNet
- Accelerated Training for Illinois Manufacturing
- National Manufacturing Institute App Design
- jobPrep Mobile App
- State’s Summer Youth Employment Programs
- Illinois Pathways
- disabilityworks
- Illinois Department of Employment Security website
- ...any many more examples



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## Introduction to ISLE Partnership

Partnership to develop infrastructure and web apps using modern practices for standardizing data models and schemas and for supporting interoperability and machine readability.

### IlliniCloud

- Data Center Infrastructure
- Operational Data Store for School Districts
- App Launcher – Single-Sign-On for School Districts

### NIU My IIRC

- Dashboards for day-to-day classroom management
- ITR Tools to monitor student interventions and performance

### SIU CWD

- **Open Educational Resources and Object Repository**
- Mini Apps



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## ISLE Benefit Examples

The technologies are beneficial to Illinois:

- Examples of modern technologies that can save the state, schools and other programs money, eliminate waste, and improve efficiencies.
- RFPs can be written requiring integration and interoperability rather than vendors owning all outputs and data.
- Open technologies provide opportunities for partnerships that can continually advance functionality, usability and sharing across state and national borders.
- Provide a roadmap to the future.

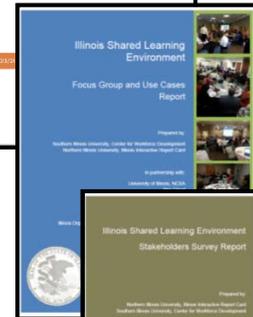
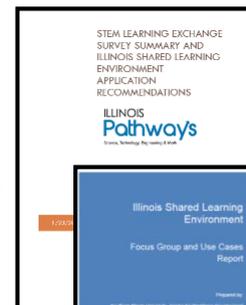


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## Focus Groups and Surveys

Input from user groups was essential in building out all ISLE application features designed to meet user needs. Initial application requirements were gathered through:

- Several statewide user focus groups attended by over 200 people representing P-20 education, workforce development and included parents, students, and employers.
- Online surveys completed by over 1,500 individuals across a similar spectrum as the focus groups.
- STEM Learning Exchanges participated with feedback gathering process.
- Teacher's union and other organizations to validate plans and many teachers and administrators in two pilot districts during the design and development of the application.
- A combination of face-to-face feedback sessions, calls, and webinars were used to engage the district users on a continuing basis.
- Presentations and feedback sessions were also conducted at state and regional conferences, such as Illinois Computer Educators Conference, in order to engage teachers and administrators from other districts.



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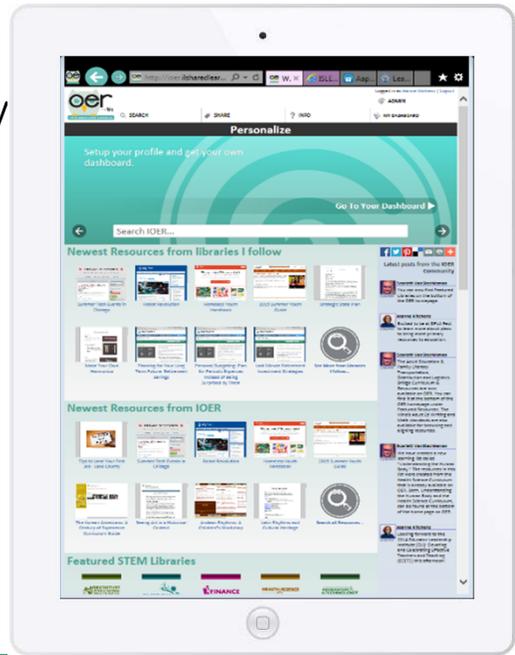
# IOER - Open Educational Resources and Object Repository

The IOER provides open access to career and education resources. It is open to anyone but also provides organizations the ability to determine their members and what resources they want to share.

The IOER gets resources from:

- National Learning Registry
- STEM Learning Exchanges
- State Agencies
- Schools, organizations, and people who create open educational resources.

Responsive design ensures the app works on devices ranging from smart phones to iPads to PCs.



## IOER Benefits and Ideas

**Open Resources** – Provides opportunities for sharing and directing resources based on preferences, grade level, skills, and more.

**Professional Development Tool** - Use as a learning tool for Learning Standards, OER evaluation, and for creating, curating and sharing.

**Curriculum Models and Resource Development** - Use IOER tools with curriculum development and testing groups then make it public.

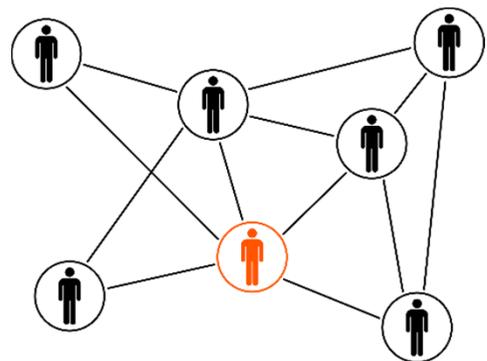
**State Partnerships** - Illinois can share open resources with standards alignments and build out app functions in partnership to share technology solutions.

**Extendibility** - Built to support iterative enhancements and extend functions. For example, use the open ePub specification to integrate creation of eBooks and the open LMS specifications to integrate with learning management systems.

**Badging** - In addition to the components already available, workflows can be developed to issue digital badges to: organizations or individuals as trusted resource sources and/or evaluators and resources determined to be good and evaluated by organizations or individuals.

**RFPs** - Vendors can be required to integrate so Illinois holds the metadata and objects.

**Any State-Sponsored Programs Developing Open Resources** - Encourage or require sharing through IOER.



# IOER Technical Information

IOER follows modern practices for standardizing data models and schemas supporting interoperability and machine readability. All of the sources, models, and schemas listed below are available through open use licenses.

Type	Sources/Specifications	IOER Use
Metadata	<a href="#">Dublin Core Metadata Initiative</a> (DCMI), DCMI Learning Resource Metadata Initiative (LRMI), <a href="#">Schema.org</a> (W3C Working Groups)	Foundational to consuming, publishing, sharing, searching, and integrating to all aspects of IOER.
Metadata and Paradata Storage and Services	<a href="#">Learning Registry</a> (LR) (Formats such as XML, JSON, and JSON-LD)	Services and infrastructure for sharing data.
Vocabulary	<a href="#">Common Education Data Standards</a> (CEDS), <a href="#">RttT</a> <a href="#">Common Content Tagging Initiative</a> , and DCMI/LRMI	Consistent tagging, filtering, and searching.
Paradata	LR Paradata	Publish assertions about people and resources in the system to establish, trust, similarity, and resource updates.
Learning Object Frameworks	<a href="#">Achievement Standards Network</a> open frameworks (including CEDS and LRMI)	Learning Standards and Rubrics include Achieve's OER and EQUIP rubrics.
Creative Works Attribution	<a href="#">Creative Commons</a>	Grants copyright permissions to creative works.
Federated Identity Management	<a href="#">Shibboleth</a> (OpenSAML)	Single-sign-on via app launcher and NIU dashboard.
Web Services/API	<a href="#">JSON</a>	IOER provides access so other web apps can use resource data.
Code Base	<a href="#">GitHub</a> (Open Source Software Licenses)	IOER provides code for others to use.

## Learning Registry

The Learning Registry is an open database where content creators and educators can share information about digital educational resources. The Learning Registry is supporting the Learning Resource Metadata Initiative (LRMI) which provides common language for tagging resources according to quality, keyword, and alignment to curricular standards. The Learning Registry supports educator voices to help define which resources are most relevant or useful.

<http://tech.ed.gov/learning-registry/>

<http://learningregistry.org/>



Steve Midgley explains the U.S. Department of Education Learning Registry project, which helps identify and find educational resources online.



Katie Garrett shares how the Learning Registry, integrated into the Utah Education Network, helps teachers find and share teaching resources.



Richard Culatta talks about improving access to digital learning content through the Learning Registry.

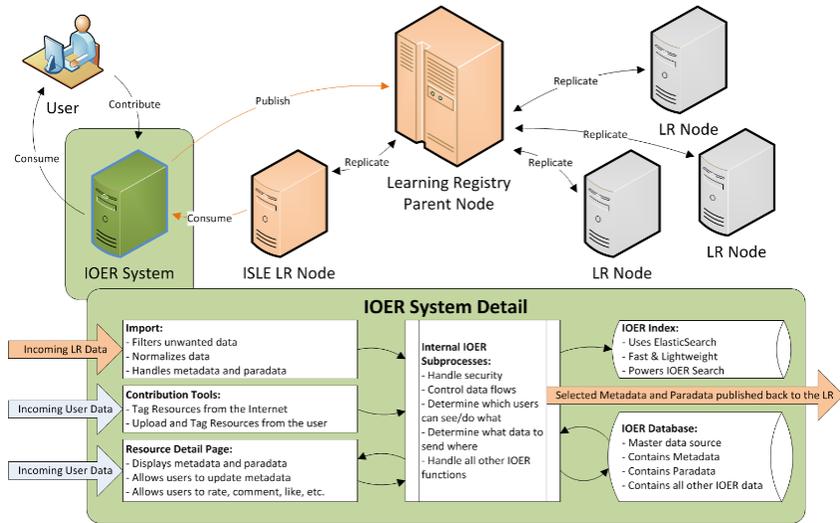


# How IOER Leverages the Learning Registry

The SIU CWD team designed and developed the related technologies and code base including:

- Consume from and publish to the Learning Registry
- Bad link and other ongoing checks
- Resource tagging, uploading, creating, curating, and communicating tools
- Authentication and role management
- Dashboard personalization
- Search index
- Database and storage

<http://ilsharedlearning.org/DevDoc/SitePages/Home.aspx>



# IOER Integration with Other ISLE Apps

- **App Launcher** – School district staff sign in and can launch the IOER web app. The app launcher keeps the staff signed in so they can use all tools and functionality when they open up IOER.
- **NIU Dashboard for K-12 Schools** – School district staff have direct access to IOER via their dashboards. When they access any of the IOER screens directly on their dashboards, the IOER keeps the staff signed in so they can use all tools and functionality.

IlliniCloud App Launcher



# IOER Integration with Dashboards

## 49 // Easy Things You Need to Know to Start Using the ISLE Educator Dashboard

1. Log on and select the year and school

Access the dashboards at <https://www.isledashboards.org>

Log on by entering your district email, select your district, and enter your district password.

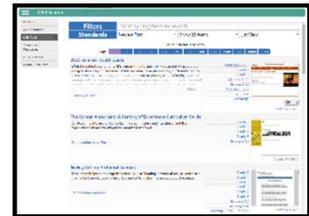
Welcome to the Educator Dashboard Home Screen!

Use the drop down menus to select the building and year you would like to view.

Once selected, your classes will display on the My Students tile.



These are some screens directly accessed/integrated via the dashboards.



# STEM Learning Exchanges and Illinois workNet

## Examples of STEM Learning Exchanges actively using OER:

- Health Science – Entire high school curriculum and library with curated resources and widgets are on their website.
- Information Technology – Ongoing tagging of resources curated for their library and widgets are on their website.
- Energy – Ongoing tagging of resources curated for their library and learning list and widgets are on their website.
- Finance – Ongoing tagging of resource curated for their library and for a financial literacy library and financial literacy widget for NIU P-20 Financial Literacy web page.

## Example of how Illinois workNet®, the state's workforce portal uses OER:

- Libraries for curating resources and search widgets are on the website.
- Related resources widget for articles and web pages.



# Widget Examples

Copy and paste a short code snippet to embed a widget on any website (<http://ioer.ilsharedlearning.org/widgets/>). Widgets are interactive and track usage.

Widget	Description
Learning List Explorer	Learning Lists are the best way to group and organize educational resources that need to be shown as having a direct relationship. Any Learning List can include: documents and several types of files, web pages, and learning standards. Levels, or branches, can show a hierarchical organization with descriptions and instructions.
Resource Search	Providing a wide variety of Filters to refine your search, IOER has developed robust criteria for your search, such as Standards, Grade Level, Subjects and Career Clusters. Finding quality learning materials is easier than ever with tools to sort and organize by Newest, Most Liked, Most Commented On, and a wide variety of Views and Libraries.
Standards Browser	The IOER Standards Browser allows you to quickly and easily browse and find a variety of Learning Standards at both the national and Illinois levels. It also allows you to search the IOER Resource repository for learning resources that are aligned to the learning standards that you select.
Library/Collections	IOER Libraries provide many ways for you to tag, contribute, create, organize and share your learning resources with fast and easy-to-use tools that allow for public and private settings. User and Organizational Libraries allow individuals and groups to quickly categorize their learning resources in so many ways.
Full Search	Add the full blown IOER search to your website--includes search bar, filters, and results. Highly configurable.

OER Widget on Illinois workNet

**Training & Financial Aid Resources**

Start Your Search

Filters

Explore

Introduction

Practice

Advantage

Progress

Financial Literacy Widget

Health Science Curriculum for High School Widget

**IOER - Health Science Curriculum**

Health Science Curriculum

Standards

Health

Science

Life Science

National Science Center for Environmental Publications (NCEP)

Healthcare Careers and Other Resources for the Quality and Climate Change for Teachers

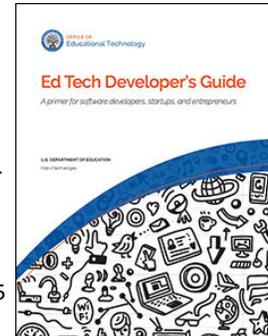
Building the Skills: User and Before Your Students Get Their Content

Energy Library Widget



## National Collaboration Examples

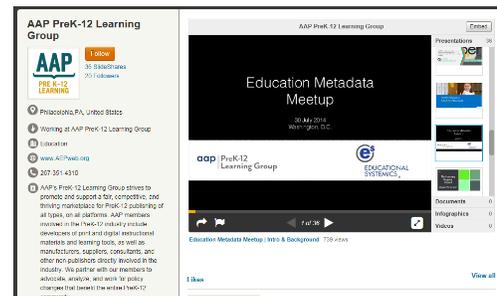
- Smithsonian - Collaborating with Smithsonian to help them publish resources to Learning Registry. During May they published approx. 2,000 resources all found in IOER.
- U.S. Department of Education Office of Educational Technologies (OET) - Included with their Open Policy Workshop held May 2015.
- Digital Public Library of America (DPLA) - Invited to DPLA Fest in Indianapolis during April where their partnership with the Learning Registry was announced and helped OET with their OER workshop. Also collaborated with DPLA to help them begin publishing to the Learning Registry. DPLA exhibitions are now found in IOER.
- Collaborating with OET on the Learning Registry and Open Resources. IOER was subsequently included with the Ed Tech Developer's Guide announced by Secretary Duncan on April 7, 2015 (<http://tech.ed.gov/developers-guide/>).
- State of Georgia Department of Education - Provided code base to consume resources from the Learning Registry.
- State of California Department of Education - Interested in potential to collaborate work with them as they develop a new statewide site.
- Nebraska School Districts - Interested in potential for customization.



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## National Collaboration Examples Continued

- Learning Registry - Participate with national developer conference calls.
- Learning Resource Metadata Initiative (LRMI) - Actively participated with planning and worked with other organizations and states on implementing. National presenter at the LRMI Metadata Meetup held in Washington D.C. on July 30, 2014 ([http://www.slideshare.net/edpublishers?utm\\_campaign=profiletracking&utm\\_medium=sssite&utm\\_source=ssslideview](http://www.slideshare.net/edpublishers?utm_campaign=profiletracking&utm_medium=sssite&utm_source=ssslideview)).
- Achieve - Worked with Achieve to convert their OER and EQUiP rubrics to SKOS metadata frameworks and made the frameworks openly available (<http://www.achievementstandards.org/content/technical-documentation>).
- Achievement Standards Network (ASN) - Worked with Achievement Standards Network (ASN) to convert OER and EQUiP rubrics and to convert learning standards from PDF files to metadata frameworks (<http://asn.jesandco.org/resources/ASNJurisdiction/IL>).
- Collaborated with BookShare to get the new accessibility metadata recently adopted by schema.org (<https://schema.org/CreativeWork>) with IOER.



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# IOER Today

The next three slides show a list of the components currently available with IOER.

Component	Description
Resources Search	Search for learning resources using keywords and a wide variety of filters, including standards alignment, grade level, career cluster, and many more.
Standards Browser	Review and search by Learning Standards.
Libraries	User-created digital collections of curated resources. Public (seen by everyone) and private (seen only by owner and people they invite) libraries for organizations (e.g. agencies, school districts, programs, universities, and colleges) and people for curating and organizing resources in collections. Libraries can be followed and usage information is directly available from each library.
Learning Lists	Groupings of related resources and files that can include standards alignments. Groupings can include levels as a hierarchy. The standards alignments are based on PARCC color coding and alignment types (i.e. Major, Supporting, and Additional). Users can download files at any level and explore all or any sections of a learning list. Learning Lists can be followed and usage information is directly available from them.
Quick Tag Tool	Submit a webpage or a file that is already hosted online, tag it with basic information, and enhance your tags later. Includes ability to align standards.
Quick File Upload Tool	Upload a file, tag it with basic information, and enhance your tags later. Includes ability to align standards.

Component	Description
Create Learning List Tool	Create learning lists with web pages, files, and learning standards. Keep it private until complete and ready to publish.
Create a New Resource Tool	Create a simple webpage and attach multiple files to it with this tool. Includes ability to align standards.
Full Tagging Tool	Fully tag resources based on all potential metadata.
Communities	The ISLE Community allows you to post to communities, see who's posting to communities and post to other peoples' posts within the community. Communities can be setup by subject, school district, or other interest areas.
Resource Information	Details about the resource, keywords, learning standards, and similar resources.
Like or Dislike	Shows total likes and dislikes and is a sort option with the search.
Comment	Add comments about a resource, learning list, or library.
Add to Library	Add resources to a library.
OER (Achieve) Rubric	This tool is modeled on the Achieve OER Rubrics Collection and is designed to evaluate Resources hosted in the IOER site. Select the ratings that best apply to the resource.
CCSS Mathematics, CCSS ELA (K-2) and (3-12) Rubrics	This tool is a derivative of the Achieve EQuIP CCSS Rubrics. They can be used with any type of Resource. Select the ratings that best apply to the resource.
Timeline	Shows all a timeline of human interactions that users indicated are public.

Component	Description
Activity and Statistics	Sessions, logins, registrations, total users by organization, library usage and more.
User Guide	Download PDFs, PPTs, and watch videos.
My Dashboard	<ul style="list-style-type: none"> <li>• Create an account and profile.</li> <li>• Return to and manage learning lists and created or tagged resources.</li> <li>• Access followed libraries and learning lists.</li> <li>• See your timeline.</li> <li>• Manage organization information including users.</li> </ul>
Other Administration Tools	<ul style="list-style-type: none"> <li>• Groups/Organization Management</li> <li>• Library and Learning List Management</li> </ul>

## Learning Standards in IOER Today

Levels	Learning Standard	Levels	Learning Standard
K-12	Illinois (CCSS) Math Standards	Adult Education	Illinois (ABE/ASE) Reading Standards
K-12	Illinois (CCSS) ELA/Literacy Standards	Adult Education	Illinois (ABE/ASE) Writing Standards
K-12	Next Generation Science Standards	Adult Education	Illinois (ABE/ASE) Mathematics Standards
K-12	Illinois Fine Arts	Adult Education	Illinois (ABE/ASE) English Language Arts Standards
K-12	Illinois Physical Education and Health Standards	National K-12	Framework for 21 <sup>st</sup> Century Learning
K-12	Illinois Social Science Standards	National K-12	National Health Education Standards
K-12	Illinois Social/Emotional Development Standards	National K-12	National Standards for Personal Finance Education
K-12	Illinois Foreign Language Standards	National K-12	Voluntary National Content Standards for Economics
		National K-12	National Standards for Financial Literacy

\* Learning Standards are added as they become available in open formats that allow open sharing and tagging.



# Additional Standards

Other learning standards and competency frameworks can be added. The system uses machine readable standards. The standards are obtained through Achievement Standards Network.



- Currently, they are working on converting the new national Agriculture Standards (endorsed by FFA).
- Other industry standards for K-12 and for postsecondary can be converted and included with IOER.

As ASN converts standards from PDF documents to machine readable, and interoperable frameworks, they are easily added to IOER to allow for browsing, tagging, aligning, rating, and more.



# Current Usage

The IOER website is averaging 22,489 user sessions per month. Additional statistics are available from the site's Activity & Statistics page.

Month	Sessions
2015-05	57,860
2015-04	26,550
2015-03	61,480
2015-02	68,183
2015-01	8,992
2014-12	5,150
2014-11	4,704
2014-10	13,274
2014-09	9,542
2014-08	5,130
2014-07	4,423
2014-06	3,102
2014-05	20,389
2014-04	26,070
<b>Average</b>	<b>22,489</b>

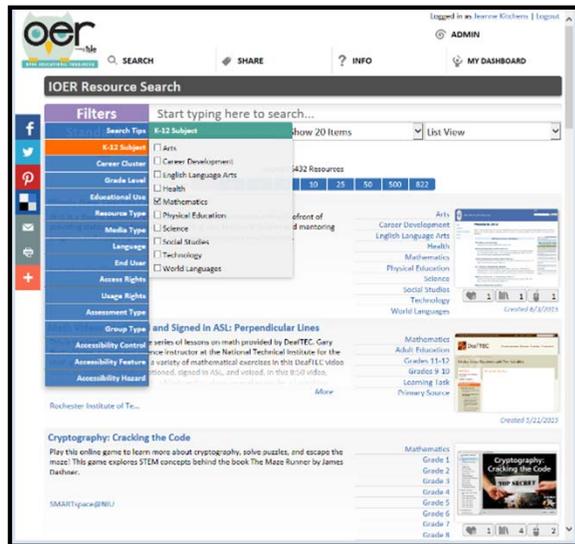
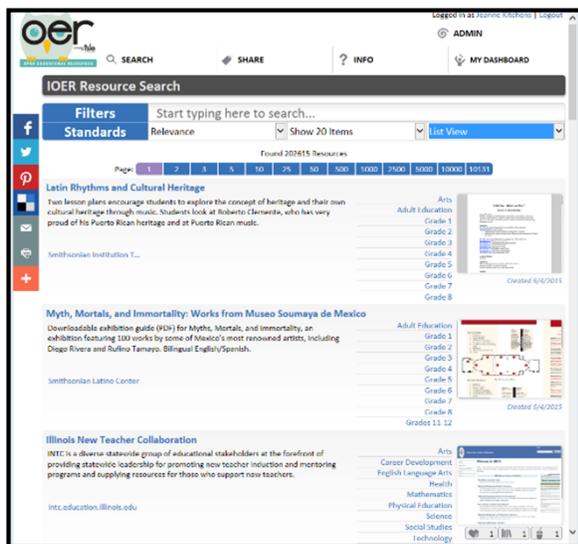


# Appendix

## Screen Shots



## Resource Search Screen Shots



# Standards Browser Screen Shots

The left screenshot shows the IOER Resource Search interface with the following details:

- Filters:** Standards, Newest First, Show 20 Items, Grid View
- Selected Category:** Common Core Math Standards, 5th Grade, Operations and Algebraic Thinking
- Search Results:**
  - Operations and Algebraic Thinking**
    - 5.O.A.A. Write and interpret numerical expressions.**
      - 5.O.A.A.1** Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
      - 5.O.A.A.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.
    - 5.O.A.B. Analyze patterns and relationships.**
    - 5.O.A.B.3** Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

The right screenshot shows the IOER Resource Search interface with the following details:

- Filters:** Standards, Newest First, Show 20 Items, Grid View
- Selected Category:** National Health Education Standards, 12th Grade, Students will demonstrate the ability to access valid information, products, and services to enhance health.
- Search Results:**
  - Students will demonstrate the ability to access valid information, products, and services to enhance health.**
    - NHES.3.12.1** Evaluate the validity of health information, products, and services.
    - NHES.3.12.2** Use resources from home, school, and community that provide valid health information.
    - NHES.3.12.3** Determine the accessibility of products and services that enhance health.
    - NHES.3.12.4** Determine when professional health services may be required.
    - NHES.3.12.5** Access valid and reliable health products and services.

# Resource Information Screen Shots

The screenshots provide the following information about the resource:

- Main Overview:**
  - Title:** The Star-Spangled Banner: The Flag that Inspired the National Anthem Homepage
  - URL:** <http://www.americanhistory.si.edu/starspangledbanner/>
  - Description:** Online exhibit exploring the story of the Star-Spangled Banner. Topics include the War of 1812 and the battle of Baltimore; Mary Pickens and the making of the flag; Francis Scott Key and the song that became the national anthem; the legacy of the flag and its use as a patriotic symbol; and the efforts undertaken to preserve the flag as a national treasure. Includes interactive activities and educational resources.
  - Created:** 6/9/2015
- Community Opinion:**
  - You like this Resource:** 0/43
  - Library Info:** This Resource appears in the following Library: [Library Name]
- Aligned Standards:**
  - Reading Standards for Literature:** CCSS.ELA-Literacy.RL.12.1, CCSS.ELA-Literacy.RL.12.2, CCSS.ELA-Literacy.RL.12.3, CCSS.ELA-Literacy.RL.12.4, CCSS.ELA-Literacy.RL.12.5
  - Reading Standards for Informational Text:** CCSS.ELA-Literacy.RI.12.1, CCSS.ELA-Literacy.RI.12.2, CCSS.ELA-Literacy.RI.12.3, CCSS.ELA-Literacy.RI.12.4, CCSS.ELA-Literacy.RI.12.5
  - Reading Standards: Foundational Skills:** CCSS.ELA-Literacy.F.12.1, CCSS.ELA-Literacy.F.12.2, CCSS.ELA-Literacy.F.12.3, CCSS.ELA-Literacy.F.12.4, CCSS.ELA-Literacy.F.12.5
  - Writing Standards:** CCSS.ELA-Literacy.W.12.1, CCSS.ELA-Literacy.W.12.2, CCSS.ELA-Literacy.W.12.3, CCSS.ELA-Literacy.W.12.4, CCSS.ELA-Literacy.W.12.5
  - Speaking and Listening Standards:** CCSS.ELA-Literacy.SL.12.1, CCSS.ELA-Literacy.SL.12.2, CCSS.ELA-Literacy.SL.12.3, CCSS.ELA-Literacy.SL.12.4, CCSS.ELA-Literacy.SL.12.5
  - Language Standards:** CCSS.ELA-Literacy.L.12.1, CCSS.ELA-Literacy.L.12.2, CCSS.ELA-Literacy.L.12.3, CCSS.ELA-Literacy.L.12.4, CCSS.ELA-Literacy.L.12.5
- Tags:**
  - Grade Levels:** Grade 3, Grade 4, Grade 5, Grade 6, Grade 7, Grade 8, Grades 9-10, Grades 11-12, Postsecondary, Adult Education
  - End User:** Teachers/Education Specialist
  - Resource Type:** Learning/Curriculum Map
  - Language:** English
  - Creator:** National Museum of American History
  - Publisher:** National Museum of American History
  - Submitter:** Smithsonian Institution
  - Accessibility Feature:** Structural Navigation, Transcript
  - Accessibility Hazard:** No Flashing, No Motion Simulation, No Sound
- Keywords:** Fort McHenry
- More Like This:**
  - The Star-Spangled Banner: The Flag that Inspired the National Anthem Homepage** - This online exhibition explores the story of the Star-Spangled Banner by learning about the War of 1812 and the Battle of Baltimore; Mary Pickens and the making of the flag; Francis Scott Key and the song that became the national anthem; the legacy of the flag and its use as a patriotic symbol; and the efforts undertaken to preserve the flag as a national treasure. This resource includes interactive activities and educational resources that can be used to further enhance this exploration of the flag that inspired the national anthem.
  - The Star-Spangled Banner: The Flag that Inspired the National Anthem Homepage** - On September 14, 1814, US soldiers at Baltimore's Fort M'Henry raised a huge American flag to celebrate a crucial victory over British forces during the War of 1812. The sight of those "broad stripes and bright stars" inspired Francis Scott Key to write a song that eventually became the United States' national anthem. In this online exhibition from the Smithsonian's National Museum of American History, students will explore the story of the Star-Spangled Banner by learning about the War of 1812 and the Battle of Baltimore. They'll discover the making of the flag, Francis Scott Key and the song that became the national anthem; the legacy of the flag and its use as a patriotic symbol; and the efforts undertaken to preserve the flag as a national treasure. This resource includes interactive activities and educational resources that can be used to further enhance this exploration of the flag that inspired the national anthem.
  - Making the Star-Spangled Banner Homepage** - Parent's guide designed to teach children the story of the flag that inspired the national anthem, includes fun facts and a list of recommended readings. Targets grades K-5.
  - The Flag is World War II** - This virtual gallery features a selection of objects from the Smithsonian's National Museum of American History that illustrate the use and meaning of the flag in World War II. While exploring it, students will learn how the flag is a variety of...

# Resource Information Screen Shots

# Library Screen Shots

# Library Screen Shots

This screenshot shows the search results page for 'Library: Illinois IT Learning Exchange Recommended Resources'. It features a search bar with the text 'Start typing here to search...', a 'Filters' section with 'Standards' selected, and a list of resources. The first resource is 'Summer Tech Events in Chicago' by 'Actors...', followed by 'Robot Revolution' and 'What's Up with IT?'. The page also includes a 'Show 20 Items' button and a 'List View' toggle.

This screenshot shows the details page for the library. It includes a 'Share & Follow' button, a 'Comments' section, and a 'Join This Library' button. The main content area displays 'Library: Illinois IT Learning Exchange Recommended Resources' and a list of collections for this library, such as 'Cool Things To Do', 'Early College STEM High School Initiative', 'IT Career Info', and 'IT Curriculum'. There is also a section for 'Embed this Library' with a URL and a list of checkboxes for various categories.

This screenshot shows the comments section of the library details page. It features a 'Details' header, a 'Share & Follow' button, and a 'Comments' section. The main content area displays 'Library: Illinois IT Learning Exchange Recommended Resources' and a list of collections. Below this, there is a 'Comments on Illinois IT Learning Exchange Recommended Resources' section with a 'Submit' button and a 'Show/Hide More Comments' link.

This screenshot shows the 'Become a Member' section of the library details page. It includes a 'Details' header, a 'Share & Follow' button, and a 'Comments' section. The main content area displays 'Library: Illinois IT Learning Exchange Recommended Resources' and a list of collections. Below this, there is a 'Become a Member of this Library' section with a 'Send Request' button.

# Library Screen Shots

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This screenshot shows the activity and collection statistics section of the library details page. It includes a 'Details' header, a 'Share & Follow' button, and a 'Comments' section. The main content area displays 'Library: Illinois IT Learning Exchange Recommended Resources' and a list of collections. Below this, there is an 'Activity for this Library (Last 90 days)' section and a 'Library Views' section with a table of collection statistics.

Collection Name	Collection Views
Workforce Dev. Adult IT Programs - Get Noticed	28
IT Curriculum	18
Cool things to do	6
Workforce Dev. Adult IT Programs - Tips for Employer	4
Participation	4
Work-based Learning	2
Workforce Dev. Adult IT Programs - Case Manager Assessment Tools	28
Professional Development	4
Tech Labs and equipment	5
Tech Associations and News Sources	1
IT Career Info	19
Minorities in IT	11
Transition from High School to College and Career	4
Student Clubs, Competitions and other After School Activities	2

# Quick Tag and Quick Upload Screen Shots

### Contribute a Resource to IOER!

**1. Choose the type of Resource to Contribute:**  
If you need to tag a file that is already hosted online, enter the URL in the Workspace Field. No need to upload it!

Tag a Workspace  Upload a File

**2. Describe your Resource:**  
More complete information will make it easier for others to find your resource! All fields except **Standards** are required.

Title: \_\_\_\_\_  
 Description: \_\_\_\_\_  
 Keywords: \_\_\_\_\_  
 Usage Rights:  No Strings Attached  Creative Commons Attribution 3.0

Who can access this file?  Anyone can access, including students

Learning Standards: Select a Standard Body: \_\_\_\_\_ Select a Grade Level: \_\_\_\_\_ Select a Domain: \_\_\_\_\_

**3. Publishing Resource for myself or an Organization:**  
This step is optional. If publishing the resource for yourself, select the appropriate one below. Only organizations where you are a member will be displayed.

Select Organization: \_\_\_\_\_

**4. Add this Resource directly to a Library:**  
This step is optional. Here you can add a Library and Collection to add this Resource to.

Select Library: \_\_\_\_\_  
 Select Collection: \_\_\_\_\_

**5. Finish!**

### 1. Choose the type of Resource to Contribute:

Tag a Workspace  Upload a File

**2. Describe your Resource:**  
More complete information will make it easier for others to find your resource! All fields except **Standards** are required.

Title: \_\_\_\_\_  
 Description: \_\_\_\_\_  
 Keywords: \_\_\_\_\_  
 Usage Rights:  No Strings Attached  Creative Commons Attribution 3.0

Who can access this file?  Anyone can access, including students

Learning Standards: Select a Standard Body: \_\_\_\_\_ Select a Grade Level: \_\_\_\_\_ Select a Domain: \_\_\_\_\_

**3. Publishing Resource for myself or an Organization:**  
This step is optional. If publishing the resource for yourself, select the appropriate one below. Only organizations where you are a member will be displayed.

Select Organization: \_\_\_\_\_

**4. Add this Resource directly to a Library:**  
This step is optional. Here you can add a Library and Collection to add this Resource to.

Select Library: \_\_\_\_\_  
 Select Collection: \_\_\_\_\_

**5. Finish!**

# Learning List Editor Screen Shots

### IOER Learning List Editor

**Learning List Navigation**

- ISBE Grade 8 Model Math Curriculum
  - Scope and Sequence
  - Family Letter
  - Unit 1 - Real Number and Exponents
    - Unit 1 - Family Letter
    - Assessments
    - Lesson 1 of 3
    - Lesson 2 of 3
    - Lesson 3 of 3
  - Unit 2 - Expressions & Equations
    - Assessments
    - Unit 2 - Lessons
    - Unit 2 - Documents
  - Unit 3 - Congruence & Similarity
    - Assessments
    - Lesson 1 of 3
  - Unit 4 - Functions
    - Assessments
    - Unit 4 - Lesson 2
    - Unit 4 - Lesson 3
    - Unit 4 - Lesson 4
  - Unit 5 - Linear Relationships
    - Assessments
    - Lesson 1 of 4
  - Unit 6 - Pythagorean Theorem
    - Assessments
    - Lesson 1 of 3
  - Unit 7 - Volume
  - Unit 8 - Patterns and Bivariate Data

Approximate timeframe to complete: \_\_\_\_\_  
 Anyone can access, including students  
 Custom Learning List image (will be resized to 400x300 pixels)

No file chosen

Created: 9/3/2014 - Scarlett VanStechleman  
 Last Updated: 10/31/2014 - Scarlett VanStechleman

### IOER Learning List Editor

**Level Properties** **Attachments** **News**

**Basic Information**

ISBE Grade 8 Model Math Curriculum

ISBE Grade 8 Model Math Curriculum

Attach an Attachment

Star Trek Project

Choose File  No file chosen

Do not replace file or URL

Anyone can access, including students

Feature this item on the level's main page

**Current Attachments**

Unit 1 Assessment Plan

View Attachment...  
 Only staff of an ILE Approved Organization  
 Aligned to 0 standards

Prerequisite Pre-Test

View Attachment...  
 Only staff of an ILE Approved Organization  
 Aligned to 2 standards

Rational and Irrational Identification Assessment

View Attachment...  
 Only staff of an ILE Approved Organization  
 Aligned to 1 standard

Irrational Estimation Card Game

View Attachment...  
 Everyone can access, including students

Irrational Estimation Dice Game

View Attachment...  
 Everyone can access, including students

**Attachment Standards**

CCSS.Math.Content.8.EE.A.1

1. Know and apply the properties of integer exponents to generate equivalent numerical expressions.

This attachment assesses this major standard

CCSS.Math.Content.8.EE.A.2

2. Use square root and cube root symbols to represent solutions to equations of the form  $x^2 = p$  and  $x^3 = p$ , where  $p$  is a positive rational number; evaluate square roots of small perfect squares and cube roots of small perfect cubes; know that  $\sqrt{2}$  is irrational.

This attachment assesses this major standard

CCSS.Math.Content.8.EE.A.3

3. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other.

This attachment assesses this major standard

CCSS.Math.Content.8.EE.A.4

4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

This attachment assesses this major standard

# Create Resource Screen Shot

**IOER Resource Authoring Tool**

**Basic Content Information**  
 Required fields are marked with a red border.

**Content Type** Guidance

Select type The Authoring Tool provides an interface for you to create an individual Content item as its own online webpage. Documents, media and other resources that are not currently online can be created as a webpage by using this tool. The created webpage can be found by anyone searching within ISLE OER, unless you indicate otherwise, but only you can edit what you create here. You can save the page in your Library and share it with others.

**Title** requires at least 5 more characters

**Description** requires at least 15 more characters

**Select Usage Rights**

No Strings Attached Creative Commons Attribution 3.0

**Who can access this resource?**

Select access level

**This resource is being Authored on behalf of...**

Myself

**Save and Continue**

**What is This?**

**How do I use this Tool?**

**Getting Started**

1. Enter a Title for your resource. Be sure it describes your resource in a way that others will understand.
2. Describe your resource. Type in a paragraph or two that tells others about it.
3. Select the Usage Rights that best apply to your resource.
4. Decide who can access your resource. Selecting anything other than "Anyone" will require users to be logged in and members of the appropriate group in order to access the content.
5. If you are authoring resources on your own or for your own purposes, select "Myself" in the last box. Otherwise, choose an organization you belong to.

**Supported files:**

- MS Office (.doc/.docx, .ppt/.pptx, .xls/.xlsx, etc.)
- Documents (.pdf, .txt, .rtf, .pages, etc.)
- Images (.jpg, .png, .gif, etc.)
- Audio (.wav, .mp3, .ogg, etc.)
- Archives (.zip, .rar, .7z, etc.)
- Smart Board (.abb, .notebook)

# Full Tagger Screen Shot

**ISLE Resource Tagger**

This tool will let you quickly and thoroughly tag a Resource.

**Resource URL** Required  
 http://

**Resource Title** Required

**Description** Required

**Keywords** Required  
 Type a keyword or phrase and press Enter.

**Language** Required  
 English

**Access Rights** Required  
 Free access

**Usage Rights** Required  
 No Strings Attached Required  
 Creative Commons Attribution 3.0

**Creator**

**Publisher**

**Requirements**

**Learning Standards**  
 Select a Standard Body...  
 Select a Grade Level...  
 Select a Domain...

**Publishing Resource for myself or an Organization**  
 This step is optional. If publishing the resource for yourself do nothing. If publishing for an organization, select the applicable one below. Only organizations where you are a member will be displayed.  
 Select Organization (optional)

**Library & Collection**  
 You can select a Library and Collection to add this Resource to immediately after submission.  
 Select a Library...  
 Select a Collection...

**Resource Type** Required

- Alternative Assessment
- Formative Assessment
- Interim/Summative Assessment
- Self Assessment
- Assessment Item
- Curriculum
- Learning Lab
- Course
- Game
- Reading Material
- Demonstration/Simulation
- Syllabus
- Lab Manual
- Career Information
- Reference Material
- Learning Tool
- Image/Visuals
- Learning/Curriculum Map
- Manipulative
- Audio/Streaming Guide
- Unit
- Primary Source
- Other

**Media Type** Required

- Application/Software
- Archive
- Audio
- Document/Text
- Image
- Interactive Whiteboard
- Non-Digital
- PDF
- Other
- Slides
- Spreadsheet
- Video
- Webpage

**K-12 Subject**

- Arts
- Career Development
- English Language Arts
- Health
- Mathematics
- Physical Education
- Science
- Social Studies
- Technology
- World Languages

**Educational Use**

- Assessment
- Curriculum and Instruction
- Interim/Assessment
- Enhancement
- Professional Development

**Career Cluster**

All Career Clusters

- Agriculture, Food, and Natural Resources
- Architecture and Construction
- Arts, AV Technology and Communications
- Business, Management and Administration
- Education and Training
- Energy
- Finance
- Government and Public Administration
- Health Science
- Hospitality and Tourism
- Human Services
- Information Technology
- Law, Public Safety and Security
- Manufacturing
- Marketing, Sales and Service
- Research and Development (STEM)
- Transportation, Distribution and Logistics

**Grade Level**

All Elementary

All High School

- Pre-K
- Kindergarten
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Grade 6
- Grade 7
- Grade 8
- Grades 9-10
- Grades 11-12
- Postsecondary
- Technical
- Adult Education

**End User**

- Administrator
- Adult Learner
- Employer
- General Public
- Job Seeker
- Learner/Worker
- Mature Worker
- Manager
- Parent
- Professional
- Re-Entry Person
- Student
- Teacher/Education Specialist
- Veteran
- Workforce and Education Partner
- Youth

**Group Type**

- Class
- Group Large (6+ Members)
- Group Small (3-5 Members)
- Individual
- Multiple Class
- PBL

Finish

# Communities Screen Shot

The screenshot shows the 'Community Forum for IOER' interface. At the top, there is a header with the IOER logo and a brief description: 'The ISLE Community allows you to post to communities, see who's posting to communities and post to other peoples' posts within the community. You can follow this community to join others who share your same interests.' Below the header is a 'Post to this Community' form with a text input field and a 'Post' button. Underneath the form, there is a section titled 'Communities' with a dropdown menu currently set to 'Community Forum for IOER'. The main content area displays a list of posts, grouped by date. The posts are:

- Postings on 4/29/2015:** A post by Scarlett VanStechleman stating 'You can now find Featured Libraries on the bottom of the OER homepage.' with a 'Reply' button.
- Postings on 4/18/2015:** A post by Jeanne Kitchens stating 'Excited to be at DPLA Fest to learn more about plans to bring more primary resources to education.' with a 'Reply' button.
- Postings on 1/29/2015:** A post by Scarlett VanStechleman stating 'The Adult Education & Family Literacy Transportation, Distribution and Logistics Bridge Curriculum & Resources are now available on OER. You can find it at the bottom of the OER homepage under Featured Resources. The Illinois Adult Ed Writing and Math standards are also available for browsing and aligning resources.' with a 'Reply' button.
- Postings on 12/12/2014:** A post by Scarlett VanStechleman stating 'We have created a new learning list called "Understanding the Human Body". The resources in this list were created from the Health Science Curriculum that is already available on OER. Both, Understanding the Human Body and the Health Science Curriculum, can be found at the bottom of the home page on OER.' with a 'Reply' button.

At the bottom of the screenshot, there is a partial view of a section for 'Postings on 9/29/2014:'.

# Timeline Screen Shot

The screenshot shows the 'IOER Timeline' interface. At the top, there are navigation tabs: 'Show All Activity', 'Recent Comments', 'Recent Community Posts', 'Resource Activity', 'Library Activity', and 'Likes'. Below the tabs, there is a section titled 'Recent activity for the IOER site'. The main content area displays a list of events, all dated '6/10/2015':

- Events on 6/10/2015:**
- Jeanne Kitchens Commented On Library Illinois IT Learning Exchange Recommended Resources. The IT Learning Exchange regularly curates great resources with the library. I recommend clicking "Share & Follow" then select to receive a weekly emailed update about this library. You have to log in to do this. If you don't have an account, click in the top, right corner to set one up. It's quick and easy.
- Jeanne Kitchens Liked Library Illinois IT Learning Exchange Recommended Resources.
- Jeanne Kitchens Liked Resource The Star-Spangled Banner: The Flag that Inspired the National Anthem Homepage.
- Jeanne Kitchens Commented On Resource The Star-Spangled Banner: The Flag that Inspired the National Anthem Homepage. You can download the National Anthem, learn about the melody Francis Scott Key used for his song lyrics and hear National Anthem Singing Contest winners.
- Chelsea Jones Interview Thank You Letters. Writing interview thank you letters is a must! Everyone knows this should be done but the reality is that very few job candidates actually take the time to send a thank you. Share: <http://ioer.ilsharedlearning.org/Rx> + Like 0 0 4.5
- Chelsea Jones Preparing for an Interview - Minimal Experience. Step-by-step guide for preparing for an interviewing with minimal work experience. Share: <http://ioer.ilsharedlearning.org/Rx> + Like 0 0 4.5
- Chelsea Jones Preparing for an Interview - Minimal Experience - Spanish. Step-by-step guide for preparing for an interviewing with minimal work experience in Spanish. Share: <http://ioer.ilsharedlearning.org/Rx> + Like 0 0 4.5
- Chelsea Jones Skills to Pay the Bills Video Series. United States Department of Labor provides a video series on mastering soft skills. Share: <http://ioer.ilsharedlearning.org/Rx> + Like 0 0 4.5

# Activity and Statistics Screen Shot



# Learning List Screen Shots

**ISBE Grade 8 Model Math Curriculum**

**Aligned Standards**

Major	Supporting	Additional
CCSS.Math.Content.8.EE.A.1	CCSS.Math.Content.8.EE.B.8	
CCSS.Math.Content.8.EE.A.2	CCSS.Math.Content.8.F.B.4	
CCSS.Math.Content.8.NS.A.2	CCSS.Math.Content.8.F.A.2	
CCSS.Math.Content.8.NS.A.1	CCSS.Math.Content.8.F.A.5	
CCSS.Math.Content.8.EE.A.3	CCSS.Math.Content.8.F.A.3	
CCSS.Math.Content.8.EE.A.4	CCSS.Math.Content.8.F.A.1	
CCSS.Math.Content.8.EE.C.7a	CCSS.Math.Content.8.EE.C.8	
CCSS.Math.Content.8.EE.C.7	CCSS.Math.Content.8.G.B.7	
CCSS.Math.Content.8.G.A.1	CCSS.Math.Content.8.G.B.8	
CCSS.Math.Content.8.G.A.2	CCSS.Math.Content.8.SP.A.1	
CCSS.Math.Content.8.G.A.3	CCSS.Math.Content.8.SP.A.2	
CCSS.Math.Content.8.G.A.4	CCSS.Math.Content.8.SP.A.3	
CCSS.Math.Content.8.G.A.5	CCSS.Math.Content.8.SP.A.4	
CCSS.Math.Content.8.EE.B.5		

**ISBE Grade 8 Model Math Curriculum**

**Assessments**

Unit 1 - Real Numbers and Exponents Assessments

**Aligned Standards**

Major	Supporting	Additional
CCSS.Math.Content.8.EE.A.1	CCSS.Math.Content.8.NS.A.1	
CCSS.Math.Content.8.EE.A.2	CCSS.Math.Content.8.EE.A.3	
	CCSS.Math.Content.8.EE.A.4	

**Files**

- Irrational Estimation Card Game
- Irrational Estimation Dice Game
- Number Line Code
- Scavenger Hunt

# Learning List Screen Shots

**ISBE Grade 8 Model Math Curriculum**

**Learning List Menu**

**ISBE Grade 8 Model Math Curriculum**

The curriculum units were created so districts may choose to adopt or adapt the models in lieu of developing their own mathematics curriculum. All of the unit outlines were developed in accordance with the information from the November 2012 PARCC Model Content Frameworks. Each middle school grade level and high school course contains a sequence of units designed to address all standards for that level in a cohesive manner.

For each grade level and Math 1, Math 2, and Math 3 there is a scope and sequence. The scope and sequence list the unit, core standards, supporting standards and the approximate time frame.

Each grade K-8 and high school integrated math course contains a sequence of units designed to address all standards for that level in a cohesive manner. They are aligned to the PARCC assessment sequence as provided in the PARCC Evidence Tables.

**Aligned Standards**

Major	Supporting	Additional
<ul style="list-style-type: none"> <li>CCSS.Math.Content.8.EE.A.1</li> <li>CCSS.Math.Content.8.EE.A.2</li> <li>CCSS.Math.Content.8.NS.A.1</li> <li>CCSS.Math.Content.8.EE.A.3</li> <li>CCSS.Math.Content.8.EE.A.4</li> <li>CCSS.Math.Content.8.EE.C.7a</li> <li>CCSS.Math.Content.8.EE.C.7b</li> <li>CCSS.Math.Content.8.EE.C.7c</li> <li>CCSS.Math.Content.8.G.A.1</li> <li>CCSS.Math.Content.8.G.A.2</li> <li>CCSS.Math.Content.8.G.A.3</li> <li>CCSS.Math.Content.8.G.A.4</li> <li>CCSS.Math.Content.8.G.A.5</li> <li>CCSS.Math.Content.8.EE.B.5</li> </ul>	<ul style="list-style-type: none"> <li>CCSS.Math.Content.8.EE.B.6</li> <li>CCSS.Math.Content.8.F.B.4</li> <li>CCSS.Math.Content.8.F.A.2</li> <li>CCSS.Math.Content.8.F.A.3</li> <li>CCSS.Math.Content.8.F.A.4</li> <li>CCSS.Math.Content.8.EE.C.8</li> <li>CCSS.Math.Content.8.G.B.6</li> <li>CCSS.Math.Content.8.G.B.7</li> <li>CCSS.Math.Content.8.G.B.8</li> <li>CCSS.Math.Content.8.SP.1</li> <li>CCSS.Math.Content.8.SP.2</li> <li>CCSS.Math.Content.8.SP.3</li> <li>CCSS.Math.Content.8.SP.4</li> </ul>	<ul style="list-style-type: none"> <li>CCSS.Math.Content.8.NS.A.1</li> <li>CCSS.Math.Content.8.EE.A.3</li> <li>CCSS.Math.Content.8.EE.A.4</li> </ul>

**Major Standards**

- CCSS.Math.Content.8.EE.A.1
- CCSS.Math.Content.8.EE.A.2
- CCSS.Math.Content.8.NS.A.2

**Additional Standards**

- CCSS.Math.Content.8.NS.A.1
- CCSS.Math.Content.8.EE.A.3
- CCSS.Math.Content.8.EE.A.4

**Files**

- Unit 1 Assessment Plan
- Prior Knowledge Pre-Test
- Rational and Irrational Identification Assessment
- Irrational Estimation Card Game

**Featured File**

**Unit 1 Assessment Plan**  
**Real Numbers and Exponents**  
**8.NS.1-2, 8.EE.1-4**

Standards/Topics	Conceptual Understanding	Procedural Skill & Fluency	Application
<b>8.NS.1</b> Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion, for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.	<b>Prior Knowledge Pre-Test</b> Lesson 1 Pre-Assessment	<b>Prior Knowledge Pre-Test</b> Lesson 1 Pre-Assessment	<b>Star Trek Project</b> Lesson 3 Summative
	<b>Real Number Pre-Test</b> Lesson 1 Pre-Assessment for growth	<b>Real Number Pre-Test</b> Lesson 1 Pre-Assessment for growth	
	<b>Rational/Irrational Identification</b> Lesson 1 Self-Assessment	<b>Real Number Post-Test</b> Lesson 1 Summative	
	<b>3 Real Number Post-Test</b> Lesson 1 Summative		

# Dashboard Screen Shot

**Jeanne Kitchens's Dashboard**

**Jeanne Kitchens**  
SIUC CWD  
Associate Director  
Update My Profile

**Recent Resources from My Library**

- The Star-Spangled Banner: The Flag that... (All Resources)
- Rate Tornado Damage (All Resources)
- WriteSteps Third Grade Unit 6 (All Resources)
- I Love Engineering Game (All Resources)
- Let's Talk About Food (All Resources)

**Libraries where I am a Member**

- Abraham Lincoln
- Adult Education
- Agriculture, Food, and Natural
- An Example of a Personal Library
- Calumet Public School District 132
- Discover Manufacturing

**Resources I Created or Tagged**

- DPLA and Education Findings and Resources | Published
- Individualized Learning Plans | Published
- WDCI Community Website | Published
- NASWA WIOA Resource Center | Published
- Talent Pipeline Management | Published
- common sense education - Scope & Resources | Published

**Libraries I am Following**

- Adult Education
- Agriculture, Food, and Natural
- Chelsea Jones
- Discover Manufacturing
- Energy Learning Exchange Library
- Erin Paulsen's Library