Learning Map Path Authoring & Visualization Starter Application Design Documentation

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Purpose of this document

Educators and school curriculum designers require easy-to-use tools to help them manage scope and sequence and other learning progressions. The tools must allow users to quickly browse CCSS, state-specific or other standards that can be used to create re-usable patterns or paths across standards and sub-standards. inBloom is developing the "trails" application that will enable these users to easily find standards and, using drag-drop tools, create and save learning maps for use in the classroom, for communications and professional development purposes, or for use in other learning applications.
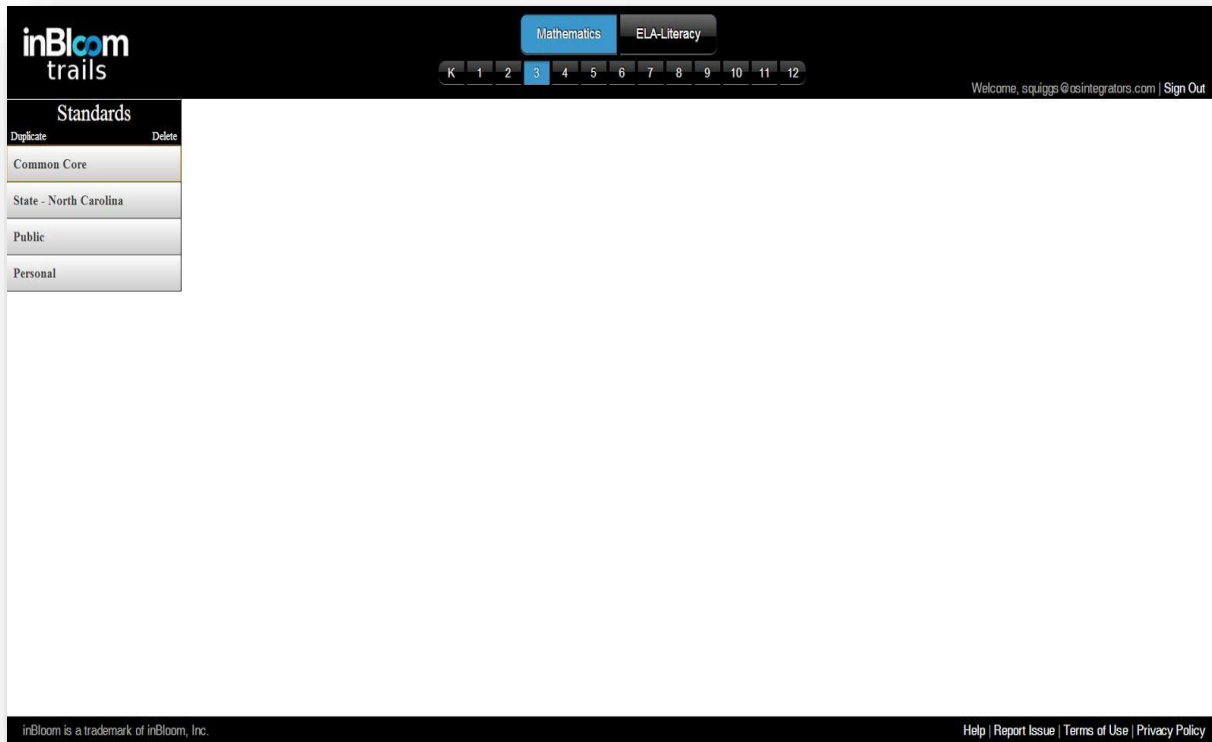
This document contains a design overview of use cases and screen mockups that the Learning Map Path Authoring and Visualization toolset is being developed against.

Development Timeline:
Working Prototype - Early July 2013
Complete working model - Late July or early August 2013
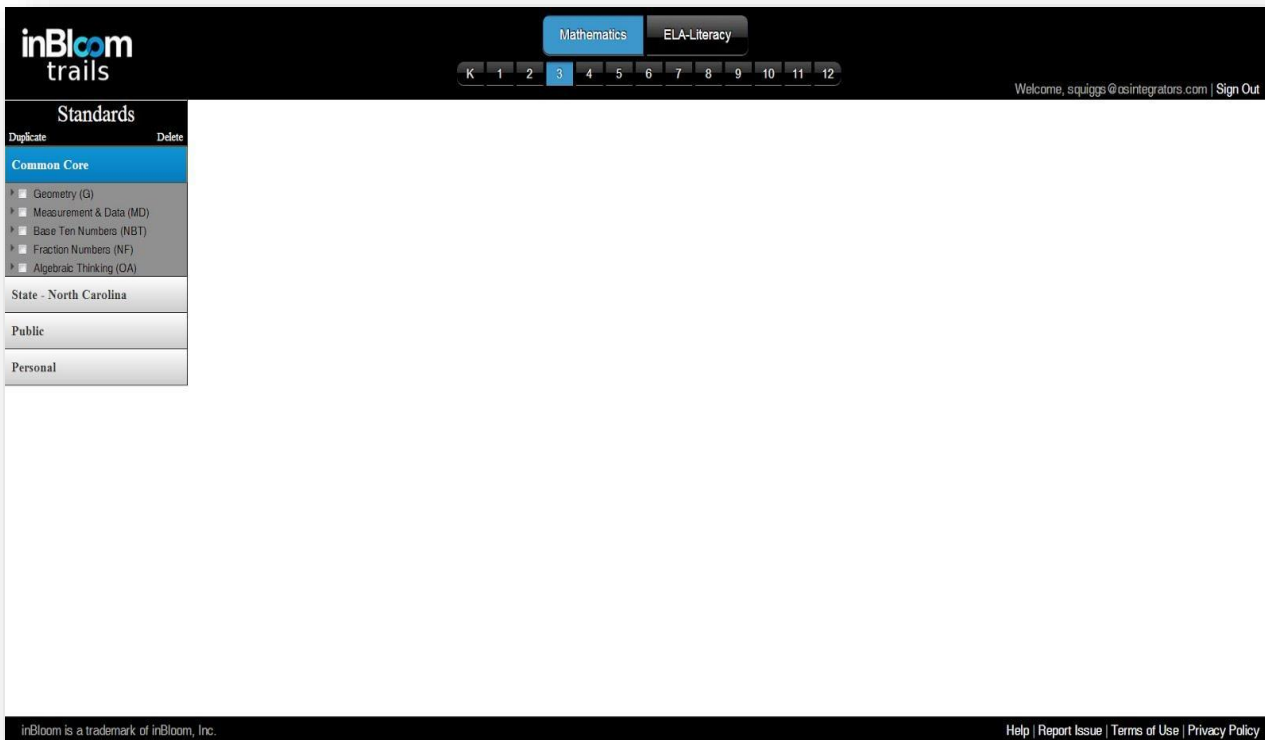
inBloom "trails"

As an educator I am able to:
- Access the Learning Map design tool through SSO (single sign on) *
- Search standards by keywords **
- Browse standards by subject or "domain"
- Browse standards by grades(s); multiple grade levels within a subject can be selected
- Create a new curriculum path with the standards
- Access a "How to Use" tutorial (e.g. screencast)

* If user is not logged in, "Welcome..." will be replaced by "sign in with inBloom"
** Search functionality is shown on page 6 and will be incorporated globally

Standards Data

As an Administrator or Educator I am able to navigate to:
- View all Common Core State Standards
- View state-specific standards (future version)
- View public standards that have been shared by other educators and administrators
- View private ("draft") standards that have been created, edited, or copied by the current user

Browsing the Standards

As an Administrator or Educator I am able to:
- Browse all shared standards
- Drill down into each domain (e.g. Geometry) to access the standards within that domain
- Access standards by grade(s) chosen (e.g. 3.G.A.1)
- Select a standard "info" icon to view detailed information about that standard
- Select multiple standards to be copied to my private (draft) set
- Delete standards from my private ("draft") set

Creating a Personal* Standard

As an Administrator or Educator I am able to:
- Confirm that selected standards have been copied to my personal set

*Users have the ability to create and publish additional standards that are meaningful for use in the classroom, for communications and professional development purposes, or for use in other learning applications.

Personal Standards ("draft" until published publicly)

As an Administrator or Educator I am able to:
- Edit and save the text of the standard within my personal set
- Publish my personal standards to the public set
- View resources related to the standard (e.g. popup with links and information)
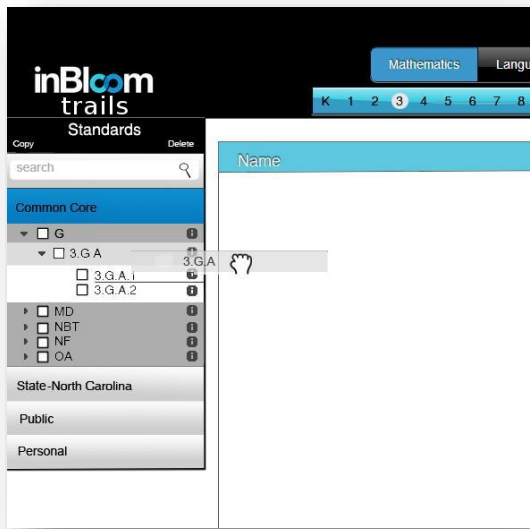
The Path Toolbox

As an Educator I have access to Path Tools* which allow me to:
- Use a *Cursor* tool to drag and interact with individual nodes
- Use an *Arrow* tool to create paths from one node to another
- Use a *Broken Arrow* tool to break paths between nodes
- Use a *Blank Paper* tool to open a new Path window
- Use a *Non-blank Paper* tool to open a dialog box and specify an existing path (e.g. my draft paths, published paths, and others' published paths)
- Use a *Trash Can* tool to delete the path
- Use a *Floppy Disk* tool to save (opens a dialog box allowing the user to save the path to my local machine as a "draft," save in my remote repository or to publish it. There will also be an option to save the path as a pdf.
- Use a *Print* tool to print the path
- Use a *Three-box* tool to create a custom look, or "skin" the path

*The Path Tools presented on other design pages will be replaced globally with this design and functionality

Creating a Path

As an Educator I can:
- Create a path by dragging the Standards, Clusters or full Domains directly into the path window from the Standards list
- Rename my path by clicking "Name" in the title bar
- Connect one node to the next in the path using the Arrow tool (from page 8)
  - Choose a precursor node (indicated with highlight)
  - Choose the postcursor node to create the path (indicated with highlight)

Creating "AND" in a Path

As an Administrator or Educator I can:
- Group nodes as pre or postcursors (indicated by black borders)
- Undo any actions by selecting the "Undo" option (to be added)
- Easily navigate a large path using zoom tools and/or horizontal and vertical scrollbars

Editing a Learning Map Node

As an Administrator or Educator I can:
- Edit nodes in my path by right clicking a node in the path
- Choose Info to view or edit the text of that node
- Rename my nodes to change the text displayed on that node
- Delete nodes to remove the node from the path window*
- Ungroup AND-joined groups of nodes

*If the user deletes a node, the paths that link to it are also deleted

Skinning a Path

As an Administrator or Educator I can access tools to customize my path by:
- Changing the color and shape of nodes
- Upload an image for the background of the map
- Clear the current background