Storymaps and Snap2Map

Using ESRI's Storymaps and Snap2Map app to satisfy VA SOL’s

In this activity, you will:

• Create a Story Map using ESRI ArcGIS Online
• Use ESRI app Snap2Map to create a Story Map
• Edit and publish Story Maps

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Creating a Story Map

Exercise: Create a story map using pictures and points placed on a map. Story map is presented in a slide show format.

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Summary of skills covered:
- Show the relationship between spatial components and their attributes
- Display attributes of data by using different classification schemes
- Composing an electronic story map
- Using aerial and satellite images as a base map and choosing the appropriate resolution
- Marking a point and uploading it into a mapping system
- Recording attributes of an event
- Developing a map to solve a problem
- Ethics in publishing maps

Data needed: Students will create a story map using existing data (photographs with geographic locations), or through collection of data using a mobile app.

Equipment and Software needed: Software: ArcGIS Online Organization account and Snap2map (optional) available for iOS or Android devices.

Related book exercise (if applicable): No text necessary.

Data Source: None.

Virginia Standards of Learning (SOL) Addressed by Skill:
1 History and Social Science GOVT.1, VUS.1, WG.1, WG.2, WG.3, WG.4, WG.11, WG.12, WHII.1, WHII.2
2 Mathematics COM.1, COM.3, PS.1, PS.3, G.1, G.2, G.3, G.4, G.13, G.14, PS.1, PS.3, Science ES.1
3 History and Social Science WG.1
4 Mathematics G.14 Science ES.1
5 History and Social Science WG.1 Science ES.1, PH.4
6 Mathematics COM.1 Science ES.1
7 History and Social Science WG.1 Mathematics G.3, G.14 Science ES.1, ES.2
8 History and Social Science GOVT.1, GOVT.3, GOVT.17, GOVT.18, WG.1, WG.2, WG.3, WG.4, WG.11, WG.12, WHII.1, WHII.2
**Objective**

This lab covers the creation of an ESRI Story Map presentation which can be used to incorporate various topics associated with the Virginia Standards of Learning (SOL).

During the lab you will use the Story Map technology to create presentations. You will better understand the concepts of spatial reasoning by going through the process of assigning geographic locations to images and/or videos to tell a geographic story.

**Background**

Many of the Virginia Standards of Learning can be addressed using the Story Map app by ESRI. The History and Social Science SOL’s require students to “create and compare political, physical, and thematic maps” while other subjects look at recording attributes of an event and using maps to solve a problem. Since Story Maps are stored online with the potential of sharing they also address the Department of Education’s technology standards.

Story Maps have a user friendly interface allowing for quick implementation. You can use collected data, or existing data to add content to the maps and slides. Use of the ESRI Snap2Map app gives students the ability to build a Story Map from their mobile device so that they can collect the data and build the presentation all in one step. Story Maps must also be checked for accuracy depending on the signal strength where the data was collected. This expands learning so that students can have a better understanding of how the technology works and develop their spatial reasoning skills.
Procedure:

1. To start a StoryMap go to [http://storymaps.arcgis.com/en/app-list/](http://storymaps.arcgis.com/en/app-list/) and explore the existing StoryMap Apps (templates) based on the topic of your presentation. For example, the Story Map Tour℠ is great for a walking tour which we will use as an example.

   ![Story Map Tour℠](image)

   **Virginia Standard of Learning**
   When deciding on a template for your presentation, explore the topic and decide what kind of story that you are trying to tell. Several History and Social Science SOLs ask students to record attributes of an event⁵ or to develop a map that will solve a problem⁶.

2. Select **Build a Map Tour** to begin your Story Map.

3. To start a Map Tour, you will be asked to link where your photos are stored. You have a lot of options, but you can only upload and store images on ArcGIS Online if you have an organizational account. **It is useful to create a folder for each project to make import easier.**

   ![Image upload options](image)

4. Once you chose a folder of images to import, select a geographic location (if pictures are geotagged they will automatically be added to the map. See the note about geolocation below.)
Having students click on the map to place a geographic location for the image allows them to use aerial and satellite images as spatial reference. It is also a good opportunity to discuss the use of aerial and satellite images as a base map and how to choose the appropriate resolution.

To assign a geographic location to an image, on the map use the + - zoom tools to zoom to the approximate location. Click on the image, and then click on the map. A marker will display on the map for each image.

When you are done assigning locations to the images click on Import.

Virginia Standard of Learning
Having students show the relationship between spatial components and their attributes is the whole idea behind a Story Map. One of the first steps of creating a Story Map is establishing a basemap. The aerial and satellite images that they have the opportunity to use can be overwhelming. Spend some time discussing the options and what basemap would be appropriate for their project. It’s not a good idea for a student to develop and publish a Story Map that will lead the general public to their front door. However, aerial photography is very beneficial for locating a data point.

5. Images with locations will be displayed in your Story Map in a slide show format. The Story Map Tour format shows the slides on the left and the map on the right. There are various options for customization available.
6. Click **Settings** for more customization options such as the layout, colors etc.

7. When you are finished customizing your Story Map (and periodically throughout creation) click on **Save**. Your map will be saved to the ArcGIS Online Content for the account that you are logged in to. To share the map you will need to access it through the content center.

8. To access the ArcGIS Online Content center navigate to [http://www.arcgis.com/home/](http://www.arcgis.com/home/) and click on **My Content**.
The Story Map will show up in your content list as a “Web Mapping Application” and a Web Map. The “Web Map” is the ArcGIS Online map that was automatically created when you geocoded your pictures. You can use existing ArcGIS Online maps in your Story Map as well.

To share your Story Map Click on the Title on the Content Page. This is a good opportunity to discuss the importance of ethics in sharing online content.

The sky is the limit for the ideas and topics that can be covered by a Story Map. To view examples of existing story maps visit the gallery at http://storymaps.arcgis.com/en/gallery/#s=0&n=30&d=1

ESRI has made Story Map even easier to use with their free Snap2Map app available for both iOS and Android platforms. To use the app you must have an ArcGIS Online Organization account (see Getting Started with ArcGIS Online Organization Accounts to find out how to request your free educational account).
1. After installing the app, you will be asked to login to your ArcGIS Online Organization account.
2. You can choose to create a new Story Map or view existing Story Maps.

3. Click on **Create New Storymap** to begin building your Story Map. Give your presentation a title and description and chose an appropriate basemap.

4. Once all of your presentation details are established you can begin to add pictures. You can take new images or chose images from your camera roll on your mobile device. Enable location services and wi-fi on your phone for greater location accuracy (standard rates will apply for these services).
5. Your first image will be your cover slide. You can edit the title and description that will appear on the cover slide or leave it blank.

As you add photos you are also adding slides to your presentation. You are also creating an ArcGIS Online map with point data of the geographic location of each picture\(^4\).

To edit slides click on the pencil edit button in the bottom right hand corner of the slide (scroll down to see all of the slides in the presentation). You can change the Title, Description, Symbology\(^1\) and Map Position.

6. As you press done, you will get a prompt to Discard And Return Home, Save Changes To Draft or Publish And Share. You should periodically Save Changes so that slides are not lost if the app should close out during use (pictures will be saved to the camera roll but may not be added to the map as a location if the app shuts down during use).

7. Once you have completed your Story Map Publish And Share it so that you can view and edit the presentation in ArcGIS Online. When you login to http://www.arcgis.com/home/ your Story Map will show up as a Web Mapping Application in My Content.
Click on the title of the Story Map to edit the presentation. Note that there is a new option in the browser called **Snap2Map** where all map application created using the app will appear.

**COAL MINING HERITAGE PARK**

Description

This story map was created using the Snap2Map iPhone application developed by Esri Labs.

Properties

8. Once the Story Map presentation is open you can switch to builder mode to edit your existing slides, or create new content.
9. To add new content click on Add button.

10. Story Map will ask for a new tour point. You can select the Media (picture/video) to upload from your computer.

11. Once you have attached the media for the slide, you can add information about the image/video under the Information tab.
12. The last piece of information that Story Map needs is a Location for the image/video. You can type in a Latitude/Longitude or click on the basemap to establish the location.

13. When you are happy with your final presentation, you can save and share your Story Map. Sharing a presentation will address VA SOL’s associated with publishing ethics.

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1 History and Social Science GOVT.1, VUS.1, WG. 1, WG.2, WG.3, WG.4, WG.11, WG.12, WHII.1, WHII.2 Mathematics COM.1, COM.3, PS. 1, PS. 3, G.1, G.2, G.3, G.4, G.13, G.14, PS.1, PS.3 Science ES.1
2 English 9.6, 9.7, 10.6, 10.7, 11.6, 11.7, 12.6, 12.7 History and Social Science WG.1, WG.2, WG.3, WG.4 Science ES.1
3 History and Social Science WG.1 Mathematics G.14 Science ES.1
4 History and Social Science WG.1 Science ES.1, PH.4
5 History and Social Science WG.1 Mathematics COM.1 Science ES.1
6 History and Social Science WG.1 Mathematics G.3, G.14 Science ES.1, ES.2
7 English 9.5, 10.5, 11.5, 12.5 History and Social Science GOVT.1, GOVT.3, GOVT.17, GOVT.18, WG.1, WG.2, WG.3, WG.4, WG.11, WG.12, WHII.1, WHII.2