

ArcGIS Online Five by Five (new)

Five Activities You Can Do in Five Minutes Each (no login required)

(requires computers with Internet access able to support simultaneous web-based mapping by all)

((NOTE: In April 2021, Esri launched a "new Map Viewer," and kept "Map Viewer Classic." In the top right corner of the map, you can switch back and forth between new and Classic as desired, but elements from one may not look or work as expected in the other. **This doc uses new.**))

Want a StoryMap version with videos and interactive maps? See <https://esriurl.com/ago5x5sm>

ACTIVITY ONE: See Your World

1. Go to <https://www.arcgis.com/> and, without signing in, click **Map**. A map will open in "new Map Viewer." Close the **Layers** panel that shows at left. At bottom of the left and right panels, click ">>" or "<<" to toggle panels. In bottom right, above the house icon, click **Hide Interface**, then click **Show Interface**. Use these whenever needed.
2. In the map, grab, hold, and move the map to pan (= "click-and-drag").
3. Test zooming in/out, using the map's zoom tools (+/- at bottom right), the mouse's scroll wheel, double-clicking on the map, and holding down Shift key while click-and-dragging.
4. Click the house icon (bottom right). Step-by-step, zoom all the way out to the world, and then all the way in to your home. Notice what happens as you zoom in and out.
5. In right side panel, click **Map tools**, then **Search**, then use the box at top right to find the address of a friend, or a placename like your state's capital city. Close Search.
6. In the left panel, click the **Basemap** button and try several basemaps, at different scales (zoom out, zoom in). What happens? You can always swap basemaps. Close Basemaps.

ACTIVITY TWO: Measure and Locate Your World

7. Zoom to the world. At right, click **Map tools**, then **Measurement**. In top right, choose **Distance** (ruler + line). Measure (click to start, click to turn; click New to restart) roughly the distance from western USA to Europe, and from western USA to central Asia, and from the northern tip of Alaska to the southern tip of Africa. Close Measurement.
8. At right, click **Map tools/Location**. Watching top right, move the mouse L-R (W-E). Which changes most, X or Y? Moving N-S, which changes most? Is latitude X or Y? Zoom in and point at home to see the coordinates. Which is positive/negative? Close Location.
9. Re-open Search and type "Mount Everest, NPL." In the "popup" window that appears, click the **Dock** icon, then close the popup. Find "White House." Re-open **Location**, click the top panel's drop-down, and choose **Capture Mode** (pin). Click the White House and note the "XY" location. Click the **Input Coordinate** (pencil), click "Go to location," and type "86.9253, 27.9879" and hit <enter>. Where did you end up? Close Location.

ACTIVITY THREE: Mark Your World

10. In the browser's URL bar, type exactly <https://arcg.is/1r81DL> and hit <enter>. This opens the info page for a saved map called "AGO5x5 new Map Viewer Trial." Click "Open in Map Viewer." This map has a marker in California. Click it, click "Zoom to" until you are close enough to see buildings, and close the popup. Close the Legend panel. At left, click

Bookmarks, and try several. Pan/Zoom to your home region. At the bottom of the Bookmarks panel, click **+Add bookmark**, type a title (like "Home"), click "Add." Click "World." Click your bookmark to test it. Add and test another.

11. At left, click **Layers**. This map was saved with two layers already in it. In **Sketch layer**, click the three dots and click "Sketch." In the Sketch panel at right, up top, in the thin vertical toolbar, "Stamp" is highlighted, and will use the "Current symbol" shown at right. Click on the map where you want the pin. Look down the Sketch panel at right to "Size" and set it to 40. Scroll up to "Popup" and click it. Click "Enable popups". Click the "T title," give your pin a title in the text box, collapse the text box, and "back out" of pop-ups. At top right, close the Sketch panel, then click your pin to test its popup.

ACTIVITY FOUR: Map Your World

12. Zoom to the World. Still in "AGO5x5 new Map Viewer Trial," at left, click Layers. Note that "Popular Demographics in US Counties" is greyed (= "not visible at this scale") and has its eye slashed (= "off"). Open Bookmarks, zoom to "US48States," reopen Layers; the layer "darkens" in the list. Click the eye to turn on the layer. Zoom out one step, then in again. Some layers must be both "on" and at the right scale to show.
13. At left, click **Legend**. You see a map of counties by "diversity" -- the chance (0-100) that any 2 random people in the county are of different racial/ethnic heritage. Pan/ Zoom to your region, ensuring you can still see the layer, and click a county. Look at all the data! Every county has similar info, and the map could be set to show any of these elements. Find the diversity of your county, and compare with other counties. Close the popup.
14. At left, click Layers. For Popular Demographics, click the **three dots** and "Show Properties." In the **Properties** panel at right, in **Transparency**, slide the indicator to 50%. The data has not changed, only how we see it has, and now we can see through the mapped layer. Click Basemap and chose Light Gray Canvas as a neutral backdrop.

ACTIVITY FIVE: Count Your World

15. The map has too many counties. Let's filter to show just the counties of your state! At far right, click **Filter**. In the Filter panel, click "+Add expression." In the Expression box, click the pulldown for ID, scroll to the bottom, click "ST_ABBREV," and click "Replace." Now the computer is preparing to say "Show only those counties where "ST_ABBREV is ..." Open the last pull-down and choose your state (hit the triangular "sort" button atop the list and then sort A-Z). Click your state; other states will grey partially. At the bottom of the Filter panel, click "Save." Zoom to your state, and add a bookmark.
16. In the Layers panel at left, click the three dots for the County layer and click "Show Table". Because you have filtered the layer, only the counties of your state show. (How many counties?) Scroll right, and down. Look at all the data! Find the "2018 Total Population (Esri)" column and click "Sort descending". Which county had the most? At far left, click that county's checkbox to see it highlighted on the map!
17. At the very far right, click Filter again, and click "Remove filter." Now how many counties are shown in the table? Which is the most populous?

For more experiences using ArcGIS Online in schools, see <https://www.esri.com/schools> and <https://esriurl.com/gettingstartedforeducators>.

ArcGIS Online Five by Five (classic)

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ACTIVITY ONE: See Your World

1. Go to <https://www.arcgis.com/>, and click "Map." In the top right corner click "Open in Map Viewer Classic."
2. Grab, hold, and move the map to pan the map (= "click and drag")
3. Test out zooming in and out, using the map's zoom bar, the mouse's scroll-wheel, double-clicking the map, and holding down Shift key while dragging.
4. Zoom all the way out to the world, and all the way in to your home. Notice what happens when you zoom in and out.
5. Use the Search box in the top right to find the address of a friend, a relative, or a placename like your state's capital city.
6. Click the Basemap button and look at each of the different basemaps, at different scales (zoom out, zoom in). Notice what happens in each as you zoom in and out.

ACTIVITY TWO: Measure and Mark Your World

7. Zoom out to the world. Click "Measure" and choose "distance" (the ruler). Measure (click to start, double-click to stop) roughly the distance from western USA to Europe, and from western USA to central Asia, and from the northern tip of Alaska to the southern tip of Africa. (Extra credit: What's a "great circle"?)
8. Change the Measure tool from ruler to the Location tool (looks like a map + crosshair). Click it, wander the world, then zoom in and click on your home to see the coordinates. Which coordinates are positive, and which are negative? Close the Measure window.
9. In the search box atop the map, type "Mount Everest, Nepal." In the "popup" window that appears, click "Add to Map Notes." See the new layer in the "Contents" to the left of the map. Find "White House," add it to Map Notes. Above the map (top right), click "Modify Map." Click the White House symbol you had added to the map, and click "Edit", then click "Change Symbol." Note the options for icon and size, and the drop-down list for different icon sets. Click "OK," click "Close," then click "Details" (atop the left pane) to stop editing.
10. Zoom back home. Above the map, click the "Add" button, choose "Add Map Notes," and use the "Map Notes" template by clicking "Create." Drop a pushpin on your home, then add an area for the school grounds and a line for your route to and from school. Click Details (top left) when done creating data. How many layers are in the map?

ACTIVITY THREE: Explore Your World

11. At the top of the map, click "New Map", then "Create New Map" and "Yes, Open the Map." (Ensure you are still in Classic.) This will give you a new clean map space, with the Topo basemap, and no additional layers. Zoom to show all of North America.
12. Click Modify Map, then "Add/Search for Layers." On the "Search for layers" line, type "popular demographics". Look down the list for "Popular Demographic in the United States" by esri_demographics, with a thumbnail of purple dots. Click the name, see the thumbnail and description and click "Add to map." Then, click Details (atop the left pane) to close the sub-panes, then click "Content." You added several layers at once!
13. Zoom/Pan to your home region, and keep it showing counties, with other layers greyed out. The counties are all "plain," but click one to show a popup. Every feature has the same "attributes," but with different "values." Let's make the map show something!
14. At left, tap the county layer name, hover over then click the "Change Style" button. Click the pulldown by "Show location only" and scroll to "2018 Diversity Index (Esri)" and click it. The "smartmapping" engine has set a light to dark style. At bottom, click "Done".
15. Pan around and see if all places look alike. Would it help to see through the layer to the landmarks below? Hover over the County layer and click the three dots for more options. Click "Transparency," and move the slider. If you set the basemap to a solid color (light/dark gray), or an image, which makes the colors easiest to read?

ACTIVITY FOUR: Expand Your World: Open a Saved Map

16. Use a shortcut URL to go directly: <https://esriurl.com/recentquakesmap>. Explore briefly, turning the layers' check boxes off and on (Contents section). Click a dot in the map.
17. Use a long URL to go directly, and try turning on "old map" layers (Contents section): <https://www.arcgis.com/home/webmap/viewer.html?webmap=79151205f3124c13bc814fda3170e901>.
18. Search ArcGIS Online. Go to <https://www.arcgis.com/>. In the Search box at the top-right of the ArcGIS Online page (NOT your browser bar's Search box), type "us48weather" and hit "Enter" {or just click [here](#)}, then in the results click the topmost thumbnail. The map should open with a handful of layers in it. (Did you open in Classic or new? Click Content or Layers, respectively.) Zoom to your region and explore. (Extra credit: If more than one layer is "turned on", which one is topmost in the map?)

ACTIVITY FIVE: App the World: Try a Focused App:

19. Recent browsers in computers and mobile devices can show the world as a sphere that you can rotate along three axes, even on a smartphone's browser. Try this "web scene" with five different "slides," saved as a single app: <https://arcg.is/digiglobe>
20. Explore US population characteristics = <https://esriurl.com/usademographicsforschools>
21. "Story Map Classic" Tour: See Washington DC on a bike = <https://arcg.is/CvyLW>
22. ArcGIS StoryMaps: Choose a topic in the [Nature & Environment collection](#).
23. Explore an endless page of available data = <https://livingatlas.arcgis.com/en/browse/>

For more experiences using ArcGIS Online in education, see <https://www.esri.com/schools> and <https://esriurl.com/gettingstartedforeducators>.