

ARCVOYAGER WORLD ATLAS ("SHOW ME") PRACTICE QUESTIONS

Using Level Two in ArcVoyager ("Viewing World Snapshots: Show Me"), mix and match data layers to answer these questions. Remember these rules of operation:

- At the top of the application window is a "Menu bar." Below that is a "Button bar." Below that is a "Tool bar."
 - Zoom in and out or pan around the screen using the various magnifying glass tools, zoom buttons, and pan tool, plus the Tour Menu.
 - Turn layers on and off by clicking the check boxes at the left edge of the list of themes.
 - Add data layers (called "themes") using the green "plus" button in the upper left corner.
 - To make a theme "active," and thus focus the computer's attention on it, click one time directly on the name of the theme, which will give it a "raised" or 3D look in the list.
 - If a theme does not show a symbol in the left-hand listing, make it "active," then click the "Legend" button to see a legend.
 - If a theme does show a symbol in the left-hand listing, make it "active," then click the "Identify" tool at the far left, then click on a feature to identify it.
 - Maps draw from the bottom-most theme to the top-most theme. Shuffle theme order by dragging themes in the list from one position to another.
1. The "Menu Bar" includes an item for "Tour Menu." Click on Tour Menu and choose each different region in turn. In how many views can you see some portion of Africa?
 2. Click the green "plus" button to add themes. From the "Lithosphere" domain, add volcanoes. Repeat to add earthquakes. Do volcanoes tend to appear in the same region as earthquakes or in different spots?
 3. In the far right end of the "Tool bar," you can see numbers that indicate the latitude and longitude of the cursor position. What is the latitude of the volcano farthest from the equator?
 4. Add the theme "Elevation" from the "Lithosphere" domain. It will show up fifth from the top, immediately below the "Country" and "Lat/Long" themes. Click and hold on the "Volcanoes" theme and slide it up above the "Elevation" theme, then let go. Do earthquakes tend to appear in random places, along gradual changes in elevation, or along more noticeable changes in elevation?
 5. Turn off all themes but the black "Country Boundaries" theme. From the "Biosphere" domain, add "% Arable Land." Click the Legend button to find the color of the highest "% Arable Land." Click one time on the "Countries" theme to make it active. Use the "Identify" tool to find the name of three countries with the highest value for "% Arable Land."
 6. From the "Biosphere" domain, add "Percent Agricultural Labor" and "GNP per Capita." By turning themes on, letting them draw, turning them off, several times, answer this question: Do agricultural labor and GNP per capita seem to match, seem to be "opposites," or have no noticeable relationship?
 7. From the "Biosphere" domain, add "Population Density", then click the Legend button. From the "Biosphere" domain, add "World Cities." Use the "Identify" tool to find what city of over 10,000,000 people is in an area of over 800 people per square mile.
 8. Which is farther north, Winnipeg (central Canada) or London (capital of UK)? From the "Atmosphere Domain," add January temperatures. Which city is colder in the winter?
 9. From the "Hydrosphere" domain, add Lakes and Rivers. One continent shows no major lakes but two major rivers that join together. What is the name of the city near the mouth of the joined river? What is the vegetation type was found on 6/1/1995 where the river meets the coast?
 10. In the broad expanse of evergreen deciduous woodland in Latin America, how much rain falls in an average year -- from ____ to ____ mm/year? In the southern portion of this broad area of evergreen deciduous woodland, there is one small section that receives an extremely high amount of rain. Is this on the eastern side or the western side of the mountains?

ARCVOYAGER US ATLAS ("POINT ME") PRACTICE QUESTIONS

Using Level Three in ArcVoyager ("Designing Global Adventures: Point Me"), engage the **US Reference Map** and answer these questions. Remember these rules of operation:

- Turn layers on and off by clicking the little checkboxes at the left edge of the list of themes.
- "Make a theme active" means to click one time directly on the name of the theme, so that it appears raised or 3D in the list. This focuses the computer's attention on that theme.
- If a theme does not show a symbol in the left-hand listing, make the theme active, then click the "Hide/Show Legend" button at the top of the screen.
- Themes display in order from the bottom of the list upward. The topmost visible theme will display last. Change theme position by dragging a theme up or down in the list.

1. What is the name of the bottommost theme that is turned on (has a black check) when the map opens?
2. Make active the "Mexico" theme and click the Open Theme Table button. How many records (rows) are there in the table? Close the Mexico table.
3. Make active the "State Capitals" theme and click the Open Theme Table button. Click one time on the name of the field (column) "City_name" so the field name turns dark grey. Click the "Sort Descending" button. What states have capitals starting with "T"? Close the State Capitals table.
4. Make active the "Pop. Density, 1990 (State)" theme. Make the legend visible, and turn the theme on. How many states appear to have less than 10 persons per square mile?
5. Continuing Question4, hit the "Zoom to Active Themes" button. What state with less than 10 persons per square mile is visible now that was not visible before?
6. Using the "Zoom In" tool (magnify plus), click and drag diagonally to create a box around your region. If you didn't get it just right, use the "Zoom to Previous Extent" button to go back, then try again. When you are zoomed in, do any other layers appear that did not appear before?
7. Make active the "Pop. Density, 1990 (State)" theme. Use the "Identify" tool to click on your state and see the set of information that exists. Not counting "Shape" or any state identification codes (such as FIPS), how many pieces of information are listed about the state?
8. Zoom to see the 50 states. Turn off the rivers and lakes and capitals themes. With "Pop Density, 1990 (State)" still active, build a query, as follows. Click the Query Builder button (hammer). In the left portion of the Query Builder window, double-click "[Age_under5]". In the central portion, click once on the ">" symbol. In the left portion double-click "[Age_65_up]". You have built a query asking the computer to identify states (the active theme) where the 1990 population under 5 years old was greater than the 1990 population over 65. Click the "New Set" button. Close the Query Builder window. The yellow states meet your query. Which states are these?
9. Make active the "Pop Density, 1990 (County)" theme. Make the legend visible. Turn the theme on. Which states that were more brightly colored now have a lot of light-colored spaces in them? (You may need to turn the county theme off and on again to tell for sure.)
10. With "Pop Density, 1990 (County)" still active, build a query, as follows. Click the Query Builder button (hammer). In the left portion of the Query Builder window, double-click "[Pop1990]". In the central portion, click once on the "<" symbol. With the keyboard, type in the number 25000. You have built a query asking the computer to identify counties (active theme) with 1990 population less than 25,000. Click the "New Set" button. Close the Query Builder window. The yellow counties meet your query. What pattern do you notice?