Name _____ Date _____

Exploring the Chesapeake Bay Watershed

FieldScope is an easy-to-use online Geographic Information System (GIS) interface for mapping, graphing, entering, and understanding data. Citizen scientists have collected data about water quality around the Chesapeake Bay watershed. You will explore this data by interacting with different base maps and map layers within FieldScope.

Part 1. General Information about the Chesapeake Bay Watershed

Open the FieldScope map, States in the Estuary: http://chesapeake.fieldscope.org/v3/maps/295.

1. What states are included in the Chesapeake Bay watershed? Hint: You may need to zoom out to see all of the states. _____

   _____

   _____

2. On the left toolbar, click on Map Layers. Go to the State Boundaries layer and click on the icon that looks like an eye. When the eye is "off" (it turns gray), that layer is no longer visible. Now you should see the topographic base map below this layer with major cities identified. What are three major cities that are included in the Chesapeake Bay watershed? _____

   _____

   _____

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Exploring the Chesapeake Bay Watershed, continued

3. Zoom in on the map and move it around until you can identify three major rivers that are included in the Chesapeake Bay watershed. River lines and names are blue on this map. _____

_____

_____

Part 2. Switching Base Maps

1. The base map you are using now is a topographic base map. Find Richmond, Virginia, on the map. What features do you observe around Richmond using a topographic base map? _____

_____

_____

2. Go to the top toolbar and click on 1. Select Base Map. Switch to a street map base map and make observations around Richmond, Virginia. Continue clicking "Next" until you return to the map. What features do you observe using this map? _____

_____

_____

3. Switch to a satellite with labels base map and make observations around Richmond, Virginia. What features do you observe using this map? _____

_____

_____

_____

4. What makes each of these maps unique? _____

_____

_____

_____

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Exploring the Chesapeake Bay Watershed, continued

5. What information on each map could be helpful for learning about a watershed? _____

_____

_____

_____

_____

Part 3. Salinity Observations in the Chesapeake Bay Watershed

Open Salinity in the Estuary: http://chesapeake.fieldscope.org/v3/maps/320.

1. Looking at this map, you should see circles with numbers inside of them. Each circle represents the level of salinity for the water in that area. What are the patterns of changing salinity as you move away from the ocean and into the bay? _____

_____

2. What are the average, reported salinity levels for the following sites?

Site	Salinity Levels (ppt)
Annapolis, Maryland	
Richmond, Virginia	
Virginia Beach, Virginia	

3. Based on your answers above, would you expect the vegetation and wildlife to be similar across the three sites? Why or why not? _____

_____

4. What are two interesting things you now know about the Chesapeake Bay watershed (think about what you learned about the geography in addition to the observations you made about salinity)? _____

_____

_____

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Exploring the Chesapeake Bay Watershed, continued

Part 4. Chesapeake Bay Action Plan Connection

After exploring the Chesapeake Bay watershed through FieldScope, return to Mr. Klene's letter and the action plan he sent you. Before selecting a site to put the action plan in place, what do you need to know? What questions do you have that need to be answered before you can make a decision?

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