### GIS Worksheet 1
**Make It Yourself: Map Canada’s Provinces and Capitals**

#### Teachers:
You will need access data from ArcCanada
Directory:
- Canada2001.shp
- Cities.shp

#### Students:
In this lesson, you will make your own map of Canada’s provinces and capital cities.

1. **Start Arcview.**
2. **Click New Project.**
3. **Click Yes** when asked to add data.
4. **Navigate** to the directory supplied by your teacher (probably Make It Yourself).
5. **Click on Canada2001.shp.**
6. **Click OK.**
7. Where you see the words Canada2001.shp, **click** the small grey button.
8. **Click** the Maximize button to make the view larger.
9. From the menu at the top of the screen, **click** the View\Properties\Projection button.
10. **Change** the Category to Projections of a Hemisphere.
11. Leave the type as Lambert Equal Area Azimuthal (Equatorial).
12. **Click OK.**
13. **Click OK** on the next screen, too.
14. **Enlarge Arcview** and the View to the full size of your screen (if not done already).
15. **Find** the Zoom In button and **click** it to make the map of Canada larger.
16. Made a mistake? **Click** the Zoom to Full Extent button and start zooming again.
17. **Double click** on the words Canada2001.shp. You should get a new box called Legend Editor.
18. Where it says Legend Type, **click** and **find** Unique Value.
19. Where it says Values Field, **click** and **find** Name.
20. At the bottom where it says Color Schemes, choose one you like (try them all).
21. When you’ve chosen the colour, **click** APPLY. **Close** the Legend Editor.
22. Find the Luggage Tag (near the big T) and **click** on it.
23. **Click** on Ontario.
24. **Click** and **label** the other big provinces and territories.
25. For the little provinces, **click** and **hold** the Luggage Tag and find the bullet Leader Label (it looks like a line with a dot at the end).
26. **Click** the province, **hold** the mouse, and **drag** a little away from the province. The Label will appear. (If you don’t like it, **click** on the pointer tool, then **delete** the label and try again.)
27. **Use** the pointer tool to **arrange** (shrink them, move them around) the labels.
28. **Double click** on two-word names. You can split these on two lines by pressing the **Enter** key when the cursor is at the end of a word. **Try it** with British Columbia.
Advanced: Font Sizes and Style
29. Click on the word Window at the top of the screen.
30. Click Show Symbol Window. Move it off to one side.
31. Click a province label.
32. Click the ABC button.
33. Choose a font, size, and style.
34. Repeat for the other labels.

Advanced: Font Colours
35. Click on the word Window at the top of the screen.
36. Click Show Symbol Window. Move it off to one side.
37. Click on a province label.
38. Click the Paintbrush button.
39. Where it says Foreground, click and choose Text.
40. Choose a colour or make your own with the Custom button.
41. Repeat for the other labels.

Have this map checked by your teacher and print it ONLY when your teacher tells you it’s ready to print.

To Add the Capital Cities:
42. Find the Add Theme button and click it.
43. Click on Cities.shp and OK.
44. From the menu select Theme and Properties.
45. Click the little hammer and question mark. (A word of explanation: Whatever you click on must appear in the box beside the question mark. There are three groups of buttons: The left ones need a double click. The middle ones need a single click. The right ones need a double click.)
46. Double click on the word Capital. Single click on the symbol “=”.
47. Single click on or.
48. Double click on the word Capital. Single click on the symbol “=”.
49. Single click on or.
50. Double click on the word Capital. Single click on the symbol “=”.
51. Click OK, and OK again.
   It should look likes this: ([Capital] = 1) or ([Capital] = 2) or ([Capital] = 3).
   If it doesn’t, click Clear and start again. (Don’t try to fix it.)
52. Double click on the words Cities.shp (get the Legend Editor).
53. Legend type: Unique Value.
54. Values field: Capital.
55. Double click on the symbol box beside the number “3”.
56. Choose a fancy symbol for the provincial capital cities (about size 14).
57. If you want to change the colour, go to the Paintbrush. (A bright colour looks best.)
58. Repeat for the number “2”. (These are the territory capitals.)
59. Double click on the symbol box beside the letter C.
60. Choose a fancier symbol for the capital of Canada (about size 16).
61. Click Apply.
62. Close the Legend Editor.
63. Select Window\Show Symbol Window.
64. From the ABC button, choose size 9 and a simple font.
65. Label the capital cities.
66. Label the Canadian capital and make the type a little bigger than the rest.
67. Labels not working? Single Click on the words Cities.shp and try again.
68. Provincial labels getting in the way? Move them, resize them, or both.
69. Ask your teacher if you should make a map with ONLY the capital cities on it. If so, delete the provincial names. Then, from the menu, choose Edit\Select All Graphics and press the delete key.

**Advanced: Put a Title on Your Map**
70. Click the BIG T.
71. Click on a white part of your map.
72. Type the title Provinces and Capitals of Canada. Click OK.
73. Click the Centre button. Make the title two lines if you like. Click OK.
74. Adjust the size with the handles or using the symbol palette (ABC button).

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