The following steps briefly outline viewing 3D data using ArcScene (3D viewer that accompanies 3D Analyst, an extension of ArcGIS 10). Download & unzip sample data from [http://www.brocku.ca/maplibrary/Instruction/Modules/Data/3D.zip](http://www.brocku.ca/maplibrary/Instruction/Modules/Data/3D.zip)

1. From the Windows START button, navigate to ArcGIS > ArcScene.
2. From the ArcScene Getting Started window, create a New Blank Scene.
3. Click the Add Data button.
4. Navigate to the downloaded geodatabase \3D\NOTL.gdb
5. Select DEM and click Add.
6. Use the ArcCatalog tab to the right of the map window to locate and add the water wells feature class.
7. From the Table of Contents, right-click DEM and select Properties.
8. From the Base Heights tab, select “Floating on a custom surface” where the path indicates \WorkshopII\NOTL.gdb\DEM
9. Click the Raster Resolution… button and under ‘Base Surface’, enter 10 for both Cellsize X and Cellsize Y.
10. From the Symbology tab, right-click the color ramp and click “Graphic View” to uncheck it.
11. Select “Elevation #1”.
13. From the Rendering tab, check the box under ‘Effects’ to shade areal features to apply shading and change the drawing priority to 3 using the drop-down box.
14. Click OK.
15. Right-click waterwells and open the attribute table. The field “depth” defines the depth of each well in feet. The following steps will result in a visual display of the water wells below the surface of the Digital Elevation Model.
16. Close the attribute table.
17. Right-click waterwells; select Properties.
18. From the Base Heights tab, select “Floating on a custom surface”. The path should indicate \3D\NOTL.gdb\DEM
19. From the Extrusion tab, check the box beside “Extrude features in this layer”.
20. Click the calculator button beside the expression box; click ‘depth2’ then *3. Click OK.
21. From the Rendering tab, uncheck the shade effects options.
22. Click OK. Small changes in elevation require a vertical exaggeration be applied.
23. From the Table of Contents, double-click Scene Layers to access Properties.
24. From the General tab, select a value of 5 for vertical exaggeration. Click OK.
25. Explore the scene using the navigation tools.
The concepts introduced in this tutorial are very complex. To learn more use the online HELP files or consider enrolling in an ESRI Virtual Campus course such as:

- **3D Visualization Techniques** (1 module, 3 hours)
- **3D Analysis of Surfaces and Features** (1 module, 3 hours)
- **Creating 3D data** (1 module, 3 hours)