

## IN-CLASS STUDENT ACTIVITY 3.3: DRAW OBJECTS

### Lesson Objective 3.3:

Draw objects. *Topic:* 3D graphics.

### Resources, software, and additional files needed for this lesson:

1. Microsoft Visual Studio 2010® and XNA® 4.0
2. Internet access
3. Tutorial 1: Displaying a 3D Model on the Screen: <http://msdn.microsoft.com/en-us/library/bb203896.aspx>

### Guiding questions:

1. How do you add 2-D and 3-D graphics to the screen with XNA?
2. What are the three different types of shaders and what are their functions?
3. What is parallax mapping?

### Student Activity:

#### Directions to the student:

1. Read the following scenario. Complete the tutorial "Tutorial 1: Displaying a 3D Model on the Screen."
2. Show your instructor the completed project when finished. Respond to the questions.

#### Scenario:

Trey Research is entering the education game market. They are planning a 3-D game in which the user flies a plane around the world to find the answers to geography problems. For example, the user might be asked to name the capital of a country and then have to navigate to the country to locate the city. Iliana Simbaeva has been offered the position of the project manager for this project and is eager to show her expertise with using 3-D graphics in XN

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#### Tutorial 1: Displaying a 3D Model on the Screen

[http://msdn.microsoft.com/en-us/library/bb197293\(v=XNAGameStudio.31\).aspx](http://msdn.microsoft.com/en-us/library/bb197293(v=XNAGameStudio.31).aspx)

#### Content:

1. What variable do you use to create a 3-D graphic?
2. Explain in your own words how to add the model to the solution and draw the model to the screen.
3. In which method would you put the code to move the plane? Why?