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Modeling Precipitation and Water Budgets using Stella

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Team A Group Presentation
Thursday, August 10, 2006
Stella/Excel/PowerPoint
Lesson Plan

Anticipatory Set: As the students enter the classroom there will be a series of questions on the board.

- 1.) *Why is ground water important?*
- 2.) *What is the connection between evapotranspiration and precipitation?*

Objective: Students will be gain a better understanding of water budgets and biomes through the use of various modeling software.

Purpose: The purpose of this lesson will be to teach the students about water budget charts through the use of computer models so that they can discuss the effects of water on the environment.

Input

I will provide the students with GIS data from the CUGIR web site about precipitation models. I will also demonstrate using excel calculations for monthly potential evapotranspiration rates. I will project both the GIS model and Excel model on the board and give students notes about how to use excel.

Model

I will show the students the Stella Model about water budgets, and show them how to modify it for different biomes.

Check for understanding

Students will manipulate data using their computer models to better understand water budgets in order to identify biomes and have a complete understanding of the model.

Independent Practice: The students will critique various sets of data and determine which biome they have.