

This is a study guide to help you to organize your notes based on the Objectives for this Module. This is not graded and is provided only as a study aid. To use it, fill in the table. Box 1 will ask you to redefine the terms or explain the concept. Box 2 will ask you to provide information about where you can find this information. Provide enough information in this box for you to be able to use this box as a reference to finding the information again. Box 3 will ask you to give an example or try to apply the concept to a new situation.

Explain the water cycle and the basic concepts associated with your water supply.

Draw a diagram of the water cycle in the space below. Describe it in terms of an input output system. What are the stocks? What are the flows?	Where is this information located?	Which stock do you think supplies Indianapolis with water?
1	2	3

Use the space below for the diagram:

Describe basic surface water and groundwater processes.

<p>Define surface water and watershed. Define groundwater. How does water move between these two stocks? How are surface water and ground water related?</p>	<p>Where is this information located?</p>	<p>Describe how pollution on the Earth's surface such as a parking lot might end up in groundwater.</p>
<p>1</p>	<p>2</p>	<p>3</p>

Explain how groundwater functions and how groundwater can be polluted or misused.

<p>Explain how water moves down through the soil and into the ground. Define a recharge zone.</p>	<p>Where is this information located?</p>	<p>What are some issues with using groundwater as a drinking water resource?</p>
<p>1</p>	<p>2</p>	<p>3</p>

Define a wetland and indicate the environmental significance of wetlands.

<p>Define wetland. List the major characteristics of a wetland.</p>	<p>Where is this information located?</p>	<p>How do wetlands reduce pollution and water velocity? Do you live near a wetland?</p>
<p>1</p>	<p>2</p>	<p>3</p>

Describe how glaciers form and describe glaciers as a system.

Draw a diagram of how glaciers form. Label the stocks and flows.	Where is this information located?
1	2

Recognize and identify the common terms to describe glaciers and their deposits.

What evidence do glaciers leave behind? What do we see at the Earth's surface that is evidence of glacial history?	Where is this information located?	How do we know that glaciers once covered most of Central and Northern Indiana? They've all melted since then.
1	2	3

Summarize how glaciation affected Indiana's landscape and soils.

Summarize Indiana's glacial history.	Where is this information located?
1	2

Relate the concepts from the Rocks and Minerals and Soils to other Earth Systems.

In Indiana, how do you think our mineral resources formed (e.g., limestone, a sedimentary rock)? How are changes in Indiana's water history (once covered by an ocean then glaciers) responsible for giving us these resources?

3

Identify the primary components of the atmosphere (composition, layers, and air masses) and how the atmosphere functions.

Draw a diagram of the atmosphere in the space below. In this box, list the major layers of the atmosphere.	What is the composition of these layers and why are these important?	Where is this information located?
1		2

Use the space below for the diagram:

Apply the concept of Earth as a System: Environmental Unity.

Define (in your own words) what is meant by "Earth as a System: Environmental Unity."	Where is this information located?	Going back to the soils module, explain what Earth systems were involved in creating the soil here in Indiana. Bring into this discussion more than what you did previously (in the Soils Objective Guide). How can you include your new understanding of glaciers?
1	2	3