

Name: Ginger Sheets, Texhoma High School

Grade Level: Geometry

Topic: Using Logical Reasoning

A. Objectives (PASS): Standard 3.1.3

B. Instruction:

- a. The lesson is about if – then statements or conditional statements. The if part is the hypothesis and the then part is the conclusion. The converse interchanges the hypothesis and the conclusion. Then we discussed the truth value for both the conditional and the converse.
- b. The literature I used to reinforce this lesson is from Lewis Carroll's *Alice's Adventures in Wonderland*. The Hatter opened his eyes very wide on hearing this; but all he said was "Why is a Raven like a writing – desk?" "Come, we shall have some fun now!" thought Alice. "I'm glad they've begun asking riddles – I believe I can guess that," she added aloud. "Do you mean that you think you can find out the answer to it?" said the March Hare. "Exactly so," said Alice. "Then you should say what you mean," the March Hare went on. "I do," Alice Hastily replied; "at least – at least I mean what I say – that's the same thing, you know. "Not the same thing a bit!" said the Hatter. "Why, you might as well say that 'I see what I eat' is the same thing as 'I eat what I see'!"
- c. The Hatter's statement "I see what I eat" can be rewritten in if – then form as "If I eat it, then I see it." The converse, "I eat what I see," can be rewritten as "If I see it, the I eat it." Are the truth values for the Hatter's statement and its converse the same? Explain.

C. Assessment: For the assessment I had them come up with 5 of their own conditional statements and write the converse for each. Then tell me the truth value of each.

D. Modifications/Accommodations:

E. Reflection: The conditional statements are always very creative, but sometimes hard for them to come up with on their own at first. Then once they get started they can usually think up several.