

REASONING in LITERATURE

Watch a short video clip from “Alice in Wonderland” :
http://www.youtube.com/watch?v=loupIOmnLJs&feature=player_embedded

- Watch for “awkward sayings”, instances of deductive/inductive reasoning, uses of Law of Detachment, or Law of Syllogism.

Consider the following passage from Lewis Carroll’s *Alice’s Adventures in Wonderland*, Chapter VII, “A Mad Tea Party.”

"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 just as well say that 'I see what I eat' is the same thing as 'I eat what I see!'"

"You might just as well say," added the March Hare, "that 'I like what I get' is the same thing as 'I get what I like!'"

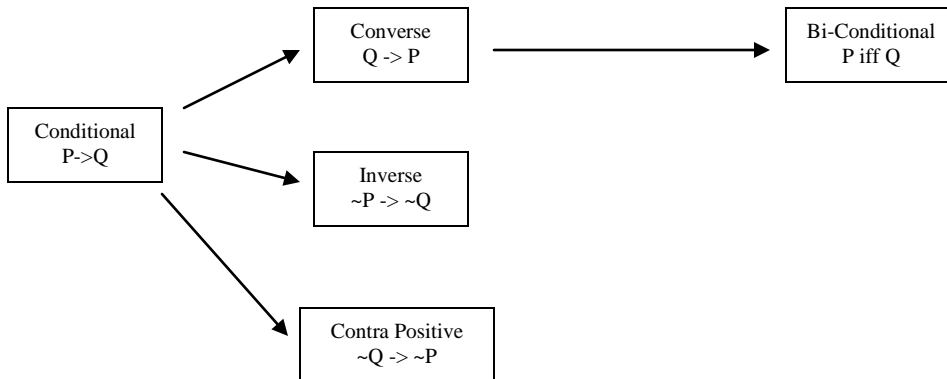
"You might just as well say," added the Dormouse, who seemed to be talking in his sleep, "that 'I breathe when I sleep' is the same thing as 'I sleep when I breathe!'"

"It is the same thing with you," said the Hatter, and here the conversation dropped, and the party sat silent for a minute.

Lewis Carroll, the author of *Alice in Wonderland* and *Through the Looking Glass*, was a mathematics teacher who had fun playing around with logic. In this activity, you’ll investigate some basic ideas from logic and perhaps have some fun too.

1. Express each of the following statements from the Mad Tea Party as a CONDITIONAL in “if ... then” form, CONVERSE, INVERSE and CONTRA POSITIVE. Give the TRUTH VALUE of EACH STATEMENT. Write as a BICONDITIONAL and indicate it’s TRUTH VALUE.

a. ***I like what I get.*** (Try using the flow chart method of organizing your information.)



b. *I breathe when I sleep.*

CONDITIONAL: _____

CONVERSE: _____

INVERSE: _____

CONTRA POSITIVE: _____

BICONDITIONAL: _____

c. *I see what I eat.*

CONDITIONAL: _____

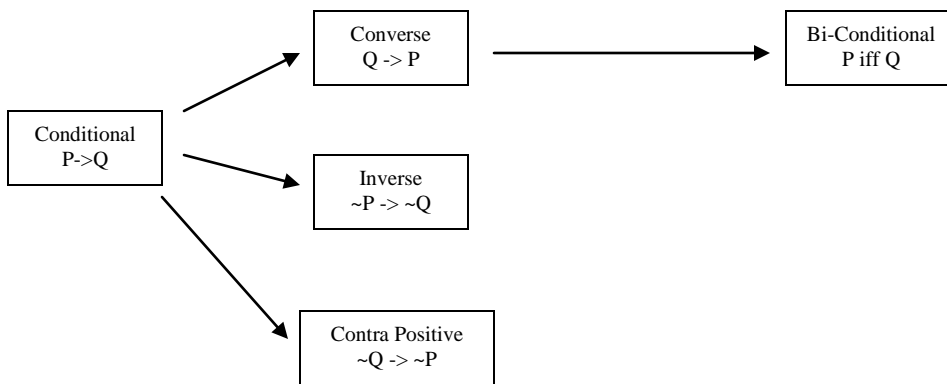
CONVERSE: _____

INVERSE: _____

CONTRA POSITIVE: _____

BICONDITIONAL: _____

d. *I mean what I say.* (Try using the flow chart method of organizing your information.)



2. The March Hare, Hatter, and Dormouse did not use “if ... then” form when they stated their conditionals. Write the converse for each conditional statement below without using “if ... then” form.

Conditional: I breathe when I sleep. Converse: _____

Conditional: I like what I get. Converse: _____

Conditional: I see what I eat. Converse: _____

Conditional: I say what I mean. Converse: _____

3 . When Alice first meets the Cheshire Cat, she asks what sort of people live in Wonderland. The Cat explains that everyone in Wonderland is mad. What conjecture might the Cat make since Alice, too, is in Wonderland? Is this an example of DEDUCTIVE or INDUCTIVE reasoning? Explain.

CONJECTURE: _____

DEDCUTIVE or INDUCTIVE? Explain. _____

4. Write the CONDITIONAL STATEMENT implied by the cat’s response to Alice:

“I don’t much care where—” said Alice.

“Then it doesn’t matter which way you go,” said the Cat.

“—so long as I get somewhere,” Alice added as an explanation.

“Oh, you’re sure to do that,” said the Cat, “if you only walk long enough.”

CONDITIONAL: _____

5. Is the cat’s conclusion valid by LAW OF DETACHMENT or LAW OF SYLLOGISM? Explain your reasoning.

“Well, then,” the Cat went on, “you see a dog growls when it’s angry, and wags its tail when it’s pleased.

Now I growl when I’m pleased, and wag my tail when I’m angry. Therefore I’m mad.”

VALID or INVALID: explain _____

6. Is Alice’s CONCLUSION VALID using the LAW OF DETACHMENT? Explain your reasoning.

Alice: “If TIME stopped time for you, he could stop time for me?

Mad Hatter: “He only stops time at tea time.”

Alice: “SO then it’s always tea time there?”

VALID or INVALID: explain _____