

Jigsaw Quiz – Science Research Paper

Name _____

Student Number _____

Instructions: Circle the one best answer.

1) Across scientific disciplines, scientific research articles are written with similar formats to help readers understand the science, the experiment, the results and the researchers' interpretations of their results. In scientific research articles, to help guide the readers, these articles include all of the following sections *except*:

- a) Results section providing tables and graphs that help summarize findings
- b) Biography section to provide background information and interests of the laboratory staff**
- c) Introduction section that explains why the research experiment was done
- d) Discussion section relating the results to the hypothesis/prediction

2) Sometimes, rather than write-up all of the steps and background of an experiment, the materials and methods section of a scientific research article will refer readers to other papers for more information about the experimental methods. This is because:

- a) The researchers were busy and needed to focus on writing the more important results section
- b) The researchers did not want anyone to know how they conducted their experiment
- c) The journal editor did not like the researchers' methods, so the editor deleted that section
- d) Research is built on previous research, so the researchers refer readers to previous research that they used for their materials & methods when conducting their experiment**

3) Which one of the following is correct:

- a) you can accept or reject a hypothesis, but never prove it to be true**
- b) you can prove a hypothesis to be true
- c) you can prove a hypothesis to be false
- d) accepting or rejecting a hypothesis is the same as proving whether or not the hypothesis is true

4) Experiments are controlled by the assignment of treatments to experimental units. An experimental unit may be a group of human subjects, a plant, etc. When measuring treatment results, scientists also measure how experimental units might behave in the *absence* of an assigned treatment. This special type of treatment is called a(n):

- a) Replicate
- b) Control**
- c) Experimental Error
- d) Randomization

5) When a scientist conducts a scientific experiment and finds that the results support the experiment's stated hypothesis, what does this mean for the scientist and the overall general scientific body of knowledge?

- a) The scientist has discovered a scientific fact that will automatically be accepted by the entire scientific community.
- b) This experiment supported the stated hypothesis so it will be published and will never have to be done again by anyone in the scientific community.
- c) This experiment has demonstrated support for the relationship between 2 or more variables. For that relationship to be supported over time by the scientific community, this experiment will have to be successfully replicated by other scientists.**
- d) The experiment's results supported the experiment's hypothesis. This scientist is done with research in this area and can move on to other research topics.