Science Versus – A Webquest Assignment

This assignment will be used to introduce you to aspects of what defines science and what defines pseudoscience. By having you complete this assignment you will gain a greater appreciation for the nature of science, and will develop your scientific literacy.

The first part of this assignment involves using the Webquest site (https://sites.google.com/a/ualberta.ca/scienceversus/introduction), which will introduce you to the basics of what is science, and what is pseudoscience. We will discuss these factors as a class. You can work in groups of up to 3 members.

Next, you will choose one of 3 assignments to complete – all of which involve the creation of a website to present your information. You will use the information about what is science and what is pseudoscience in this critique.

1) *Debunk a pseudoscience of your choosing*
- use your knowledge of science and pseudoscience to uncover the mystery surrounding a pseudoscience of your choice, or use your knowledge to confirm a pseudoscience as a real science.

2) *Discuss ways to educate society about the differences of science and pseudoscience*
- Science and pseudoscience are often confused in society. Discuss ways that we can educate society about the differences between them, and ways that we can increase the scientific literacy of the general population

3) *Confirm, or critique the science behind your favorite superhero*
- Use your knowledge of science and pseudoscience to discuss some of the powers from your favorite superheros. You can use your knowledge to discuss how their powers may be plausible, or to critique it and describe how it is simply pseudoscience.

You will research your topic, most of which have some initial resources for you to use, which are on the actual assignment website. You will be introduced to peer-reviewed resources, and how to reference in the *What is science*? section.

After choosing and researching your topic, you will construct your website to use as a tool for presenting your research to the class.

There will be an in-class tutorial on how to use Googlesites to create a basic, yet functional website. The goal of this is to increase your technical aptitude, and to introduce you to basic technologies, and develop your comfort in using them. The breakdown of the classes are as follows:
Class 1) Introduction; What is science and What is pseudoscience research, plus discussion
Class 2) Research of assignment, and Googlesites tutorial
Class 3) Additional Research + Website construction

I will then mark each website, and then a group will present their website to the class. The presentation will be a brief overview of what was discovered about the certain topic, and will showcase the research and website.

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Grade Descriptor	Excellent (4)	Good (3)	Satisfactory (2)	Poor (1)	Does not meet standards (0)
Overview of your critique:					
Quality and depth of Critique	Provides a <u>detailed</u> analysis of the chosen topic	Provides a <u>concise</u> analysis of the chosen topic	Provides a <u>brief</u> analysis of the chosen topic	Provides a <u>vague</u> analysis of the chosen topic	<u>Does not</u> provide a analysis of the chosen topic
Discussion of topic as science or pseudo-science	Provides a <u>detailed</u> discussion of the topic in relation to science and pseudo-science	Provides a <u>concise</u> discussion of the topic in relation to science and pseudo-science	Provides a <u>brief</u> discussion of the topic in relation to science and pseudo-science	Provides a <u>vague</u> discussion of the topic in relation to science and pseudo-science	<u>Does not</u> provide a discussion of the topic in relation to science and pseudo-science
Application of What is Science?	Incorporates <u>almost all</u> aspects of that is science into the critique	Incorporates <u>most</u> aspects of that is science into the critique	Incorporates <u>some</u> aspects of that is science into the critique	Incorporates <u>few</u> aspects of that is science into the critique	<u>Does not</u> incorporate aspects of that is science into the critique
Application of what is Pseudo-science?	Incorporates <u>almost all</u> aspects of that is pseudo-science into the critique	Incorporates <u>most</u> aspects of that is pseudo-science into the critique	Incorporates <u>some</u> aspects of that is pseudo-science into the critique	Incorporates <u>few</u> aspects of that is pseudo-science into the critique	<u>Does not</u> incorporates aspects of that is pseudo-science into the critique
Website Functionality	Website is <u>flawless</u> in function and provides an <u>intuitive</u> layout	Website is has <u>few flaws</u> in function and provides a <u>relatively clear</u> layout	Website has <u>few flaws</u> in function and provides a <u>unclear</u> layout	Website has <u>major flaws</u> in function and has <u>an unclear</u> layout	Website <u>does not exist</u>, or is <u>not clear</u>, and function is <u>severely inhibited</u>
Website Presentation	Website is <u>effective</u> and <u>organized</u> in presentation	Website is <u>effective</u> and <u>organized</u> in presentation, but could <u>improve</u>	Website is <u>ineffective</u> and <u>unorganized</u>, but is still <u>workable</u>	Website is <u>ineffective</u> and <u>unorganized</u> - requires <u>vast improvement</u>	Website is <u>ineffective</u> and <u>unorganized</u>, or does not exist
Quality and Diversity of Resources					
The critique contains at <u>least 2 peer</u> reviewed resources, and diversity in resource type **(2)**		The critique contains 1 peer reviewed resource, and some diversity in resource type **(1)**		Uses <u>no</u> peer-reviewed resources, <u>no</u> resource diversity and <u>no</u> references present **(0)**	

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