

Independent Research Powerpoint Presentations

This assignment has two parts. First, you are to make a power point presentation representing each of the 5 main types of chemical reactions using cartoons or celebrity pictures to illustrate each reaction. Then (on the same power point) you are to select either part A or part B to research and answer. **THIS WILL COUNT AS A MINOR GRADE WORTH 200 POINTS!**

A. Analyze, on the basis of research, chemical reactions used in various industrial processes (e.g. pulp and paper production, mining and chemical manufacturing) that can have an impact on the health and safety of local populations. Consider the issue : base metal smelting produces useful metals such as zinc, lead, copper and nickel directly from their ores. However during smelting harmful compounds can be released into the environment, including cadmium, arsenic, sulphur dioxide and mercury, all of which can endanger the health and safety of local populations. Answer the questions that follow:

1. What are some chemical reactions used in the manufacture of paper.
2. How might the reactants or products of the pulp and paper production process affect the health of people living near the plant.
3. In what ways might the leaching of chemicals from tailing ponds affect the water quality in a local community.
4. In what ways do toxic chemical fires affect local communities.

B Assess the effectiveness of some applications of chemical reactions that are used to address social and environmental needs and problems. Consider the issue : Scrubber systems are a group of air pollution control devices used by industry to remove or neutralize exhaust gases before they reach the atmosphere. Scrubber technologies help to reduce acid precipitation, but there are many different scrubbing techniques with varying levels of effectiveness in controlling acid gas emissions. Answer the questions that follow :

1. How are chemical reactions used to remediate environments affected by oil spills.
2. How can tailing ponds be rehabilitated to lessen the effects of hazardous chemicals on plant populations.
3. What types of chemical reactions can change a toxic chemical into one that is less toxic or non-toxic.

PowerPoint Rubric

Topic _____

Category	Excellent	Good	Fair	Poor or Not Observed	POINTS
Introduction	<p>3 points</p> <p>The introduction presents the overall topic and draws the audience into the presentation with compelling questions or by relating to the audience's interests or goals.</p>	<p>2 points</p> <p>The introduction is clear and coherent and relates to the topic.</p>	<p>1 point</p> <p>The introduction shows some structure but does not create a strong sense of what is to follow. May be overly detailed or incomplete and is somewhat appealing to the audience.</p>	<p>0 points</p> <p>The introduction does not orient the audience to what will follow.</p> <p>The sequencing is unclear and does not appear interesting or relevant to the audience.</p>	
Content	<p>10 points</p> <p>The content is written clearly and concisely with a logical progression of ideas and supporting information.</p> <p>The project includes motivating questions and advanced organizers. The project gives the audience a clear sense of the project's main idea.</p> <p>Information is accurate, current and comes mainly from * primary sources.</p>	<p>6 points</p> <p>The content is written with a logical progression of ideas and supporting information.</p> <p>Includes persuasive information from reliable sources.</p>	<p>4 points</p> <p>The content is vague in conveying a point of view and does not create a strong sense of purpose.</p> <p>Includes some persuasive information with few facts.</p> <p>Some of the information may not seem to fit.</p> <p>Sources used appear unreliable.</p>	<p>0 points</p> <p>The content lacks a clear point of view and logical sequence of information.</p> <p>Includes little persuasive information and only one or two facts about the topic.</p> <p>Information is incomplete, out of date and/or incorrect.</p> <p>Sequencing of ideas is unclear.</p>	
Text Elements	<p>6 points</p> <p>The fonts are easy-to-read and point size varies appropriately for headings and text.</p> <p>Use of italics, bold, and indentations enhances readability.</p> <p>Text is appropriate in length for the target audience and to the point.</p> <p>The background and colors enhance the readability of text.</p>	<p>4 points</p> <p>Sometimes the fonts are easy-to-read, but in a few places the use of fonts, italics, bold, long paragraphs, color or busy background detracts and does not enhance readability.</p>	<p>2 point</p> <p>Overall readability is difficult with lengthy paragraphs, too many different fonts, dark or busy background, overuse of bold or lack of appropriate indentations of text.</p>	<p>0 points</p> <p>The text is extremely difficult to read with long blocks of text and small point size of fonts, inappropriate contrasting colors, poor use of headings, subheadings, indentations, or bold formatting.</p>	

Layout	6 points The layout is visually pleasing and contributes to the overall message with appropriate use of headings, subheadings and white space.	4 points The layout uses horizontal and vertical white space appropriately.	2 point The layout shows some structure, but appears cluttered and busy or distracting with large gaps of white space or uses a distracting background.	0 points The layout is cluttered, confusing, and does not use spacing, headings and subheadings to enhance the readability.	
Scholarly Credits	8 points Sources of information are properly cited so that the audience can determine the credibility and authority of the information presented.	4 points Most sources of information use proper citation, and sources are documented to make it possible to check on the accuracy of information.	2 points Sometimes copyright guidelines are followed	0 points No way to check validity of information.	
Graphics, Sound and/or Animation	8 points The graphics, sound and/or animation assist in presenting an overall theme and enhance understanding of concept, ideas and relationships. Images are created using proper size and resolution, and all images enhance the content. At least 8 visuals are embedded in the PowerPoint	4 points The graphics, sound and/or animation visually depict material and assist the audience in understanding the flow of information or content. Images are proper size, resolution Most images enhance the content. There are from 5-7 appropriate visuals or sounds in the presentation..	2 points Many of the graphics, sounds, and/or animations seem unrelated to the topic/theme and do not enhance the overall concepts. Images are too large/small in size. or images are poorly cropped or the color/resolution is fuzzy. 3-5 visuals or sounds are appropriate for the presentation	0 points The graphics, sounds, and/or animations are unrelated to the content. Graphics do not enhance understanding of the content, or are distracting decorations that create a busy feeling and detract from the content. Fewer than 3 visuals or sounds are used in the presentation	
Writing Mechanics	9 points The text is written with no errors in grammar, capitalization, punctuation, and spelling.	6 points The text is clearly written with little or no editing required for grammar, punctuation, and spelling.	3 points Spelling, punctuation, and grammar errors distract or impair readability. (3 or more errors)	0 points Errors in spelling, capitalization, punctuation, usage and grammar repeatedly distract the reader and major editing and revision is required. (more than 5 errors)	
TOTAL POINTS					/50