

SNC 2D7 – Chemistry Research Project
Chemical Reactions in the Real World

Name: _____

Due: _____

Description:

You (working alone) will apply your knowledge of chemistry and chemical reactions to research a real world issue that is directly related to one or more chemical reactions. You will then use a format of your choice to communicate your understanding of the issue and your understanding of the chemical reactions involved.

Issue from Quadrant: _____

1	2	3	
Looking for locations for new dump sites	Pollution scrubbers.	The environmental impact of internal combustion engines.	A
Chemical waste in mining	Changes in pressure treated lumber.(old vs new methods)	Chemical reactions in gardening.(soil leaching, fertilizers)	B
Keeping pools clean. (salt vs chlorine vs bromine)	Corrosion of support structures (buildings, bridges, etc)	Cleaning up chemical spills (e.g. from a train derailment)	C
Hazardous waste disposal.	Health issues from chemical exposure.	Dangerous chemical reactions in the workplace. (e.g. hairdressers, mechanics, etc)	D
Use of titanium oxide to reduce acid precipitation	Ocean acidification and coral reefs	Metals in the body – from joints to piercings	E

Project Format from Quadrant: _____

1	2	3	
Write a newspaper article.	Write a series of 5-10 poems that express how you feel about the issue/topic (include some factual information).	Write a letter to the municipal government stressing the importance of the issue.	A
Create a song or short story.	Investigate your topic in the form of an essay (500 words).	Write a public service announcement or letter to inform the public about the issue.	B
Write a graphic novel.	Create an information brochure.	Create a children's storybook.	C
Oral presentation of the issue including a Power Point presentation.	Build a model or physical representation. Be sure to include labels and brief descriptions.	Interview friends, teachers, parents, and/or peers about any experiences they've had related to the issue. You may simply write this up or record it. Be sure to ask scientific questions and seek scientific answers.	D

Timeline:

Tuesday Dec 2 nd	Introduction of Project
Wednesday, Dec 3 rd	Choose an Issue/Format
Week of Dec 8 th	Research Period
Fri Dec 12 th	Part A of Project Due
Mon Dec 15 th	Final Project Due

← 1st come 1st serve See your teacher to sign up

SNC 2D7 – Chemistry Research Project
Chemical Reactions in the Real World

Name: _____

Due: _____

Part A

Name of Issue: _____ Quadrant: _____

Type of Format: _____ Quadrant: _____

Five facts
about your
issue related to
chemistry:

1. _____

2. _____

3. _____

4. _____

5. _____

Two chemical reactions
related to your issue

a) Write the word
equation

b) Briefly explain how
the reaction is related to
your issue

Reaction # 1:

Reaction #2:

Vocabulary List:

(Five scientific/chemistry
words related to your
issue that will appear in
your project)

1. _____

2. _____

3. _____

4. _____

5. _____

Reference List:

(Three reliable sources
that will be used as in text
citations in your project)

1. _____

2. _____

3. _____

SNC 2D7 – Chemistry Research Project
 Chemical Reactions in the Real World
Marking Scheme

Name: _____

Part A		
Description of Criteria	Mark	Comments
Includes 5 facts about the issue. All 5 facts relate in some way to chemistry.	0 1 2 3 4 5	
The word equations for 2 chemical reactions are listed and a brief description of how the reaction is related to the issue is included.	0 1 2 3 4	
The vocabulary list includes 5 scientific/chemistry words related to the issue. The words are at a high enough level/appropriate for a grade 10 student.	0 1 2	
Total	/11K/U	

FINAL PROJECT – APPLICATION		
Description of Criteria	Mark	Comments
The student demonstrates (thorough/good/some/limited) understanding of the issue in society	0 1 2 3 4	
The student assesses the impact of the issue on the individual/society and the environment.	0 1 2 3 4	
The student proposes/describes a feasible/practical action plan to deal with the issue	0 1 2 3 4	
Total	/12A	

FINAL PROJECT – COMMUNICATION		
Description of Criteria	Mark	Comments
The student communicates effectively using their <u>chosen format</u>	0 1 2	
The student communicates/organizes ideas and information effectively by <ul style="list-style-type: none"> - writing/speaking in own words - using correct grammar/spelling - aesthetic appeal/creativity - other (depending on format chosen): 	0 1 2 3 4 5 6	
Information is cited when necessary. Bibliography is included in proper APA format with at least <u>three different sources</u> listed.	0 1 2	
Total	/10C	

Total:

11K/U	12A	10C