

Advanced Earth Science Summer Assignment



MINING NYS RESOURCES PROJECT



SCENARIO:

You represent a New York State mining company, but you don't have enough money to develop your mineral resource thoroughly. You need to get some investors to keep you in business. So you will go to the President and CEO of Dragon Industries, Ltd., and ask for financial assistance.

INTRODUCTION:

What do a billiard ball, an automobile and a ceramic cookie jar have in common? All of these are made with New York minerals! New York ranks in the top 15 mineral producing states. Annually, New York miners produce over \$1.5 billion in mineral products.

You must prepare a detailed presentation to be given at the corporate headquarters of Dragon Industries, Ltd., located in Cornwall, New York. This is your opportunity to convince Dragon Industries, LTD. to invest in your company and buy your raw material(s) for the manufacturing of finished products.

Did You Know?

New York State's 2500 mines produce an amazing variety of products. Each year, every New Yorker uses more than 41,000 pounds of newly mined mineral materials. Some of those minerals include:

Garnet	Halite	Calcite/Limestone	Talc
Bluestone	Sand & Gravel	Gypsum	Corundum/Emery
Wollastonite	Clay	Quartz	Dolomite/Dolostone
Galena	Pyrite	Magnetite	Graphite

PROCEDURE:

You will select a mineral or mineral resource and prepare a presentation to convince Dragon Industries, LTD. to fund your mining project. You must thoroughly explain the mineral including its properties, importance, location, availability, history in NYS mining industry as well its environmental implications.

Your presentation should include some form of pictures/ charts/ graphs or maps on each slide. Presentations can ONLY be completed in Google Slides, Microsoft Powerpoint or Canva.

Make sure that you include:

- Name of Mineral(s)
- Primary uses of the mineral
- Physical/Chemical Properties of mineral
- Origin of mineral (igneous, metamorphic, or sedimentary)
- Explanation of how the mineral forms
- Source Region/Location in NYS where mineral can be found
- Availability (rare or common?)
- Mining Methods
- History of mining this mineral in NYS (is this mineral being actively mined now?)
- Plans for transporting product to market

- Environmental Impact(s) of mining and using your mineral resources.
- List of sources of Information (Bibliography - minimum of five)

Under no circumstances will Ai technology, Chat GPT, or plagiarism be able to be used on this assignment. This assignment will be run through a plagiarism check. Any instance of chat GPT or plagiarism will result in an automatic zero for this assignment and office referral.

Project Due Date: September 9th, 2024. This assignment will NOT be accepted late. Any late assignment will receive a grade of zero. This assignment is worth 50 points and will count as an assessment grade.

The goal is to create a professional and businesslike presentation

Mining NYS Resources Project Rubric

Total Points= 50

Criteria	Exemplary (4)	Proficient (3)	Developing (2)	Beginning (1)
Primary Uses	Thoroughly explains the primary uses of the mineral(s) with relevant details.	Explains the primary uses of the mineral(s) with some relevant details.	Provides limited or somewhat unclear information about the primary uses of the mineral(s).	Fails to provide information about the primary uses of the mineral(s) or provides inaccurate information.
Physical/Chemical Properties	Provides a comprehensive and accurate description of the mineral's physical and chemical properties, including crystal structure, color, hardness, streak, luster, breakage pattern and density.	Provides a detailed description of the mineral's key properties.	Provides a basic description of the mineral's properties with some inaccuracies or omissions.	Provides little to no information about the mineral's properties.
Origin and Formation	Thoroughly explains the origin and the formation process of the mineral(s) with accurate, detailed information.	Explains the origin and formation of the mineral(s) with mostly accurate information.	Provides limited or somewhat unclear information about the origin and formation of the mineral(s).	Fails to provide information about the origin and formation of the mineral(s) or provides inaccurate information.
Source Region/Location	Clearly identifies the specific source region(s) or location(s) in NYS where the mineral(s) can be found.	Identifies the source region(s) or location(s) in NYS where the mineral(s) can be found with some accuracy.	Provides limited or somewhat unclear information about the source region(s) or location(s) in NYS where the mineral(s) can be found.	Fails to provide information about the source region(s) or location(s) in NYS where the mineral(s) can be found or provides inaccurate information.

Availability	Clearly explains whether the mineral(s) is/are rare or common, with accurate, detailed information.	Explains the availability of the mineral(s) with mostly accurate information.	Provides limited or somewhat unclear information about the availability of the mineral(s) .	Fails to provide information about the availability of the mineral(s) or provides inaccurate information.
Mining Methods	Thoroughly describes the mining methods used to extract the mineral(s) with accurate, detailed information.	Describes the mining methods used to extract the mineral(s) with mostly accurate information.	Provides limited or somewhat unclear information about the mining methods used to extract the mineral(s).	Fails to provide information about the mining methods used to extract the mineral(s) or provides inaccurate information.
History of Mining	Clearly explains the history of mining the mineral(s) in NYS, including whether it is currently being actively mined, with accurate, detailed information.	Explains the history of mining the mineral(s) in NYS, including whether it is currently being actively mined, with mostly accurate information.	Provides limited or somewhat unclear information about the history of mining the mineral(s) in NYS, including whether it is currently being actively mined.	Fails to provide information about the history of mining the mineral(s) in NYS, including whether it is currently being actively mined, or provides inaccurate information.
Transportation to Market	Thoroughly describes the plans for transporting the mineral product to market with accurate, detailed information.	Describes the plans for transporting the mineral product to market with mostly accurate information.	Provides limited or somewhat unclear information about the plans for transporting the mineral product to market.	Fails to provide information about the plans for transporting the mineral product to market or provides inaccurate information.
Environmental Impact	Clearly and thoroughly explains the environmental impact(s) of mining and using the mineral resource(s) with accurate, detailed information.	Explains the environmental impact(s) of mining and using the mineral resource(s) with mostly accurate information.	Provides limited or somewhat unclear information about the environmental impact(s) of mining and using the mineral resource(s).	Fails to provide information about the environmental impact(s) of mining and using the mineral resource(s) or provides inaccurate information.
Information: Content specific words & Understanding	Multiple content specific words included & show complete understanding	Multiple content specific words included & show some understanding	Some content specific words included & show some understanding	Little to no content specific words included & show little to no understanding

Aesthetics: Organization and Presentation	Information is completely organized, easy to read, and very well designed	Information is mostly organized, easy to read, and well designed	Information is partially organized, easy to read, and designed	Information is not very organized, hard to read, and poorly designed
Aesthetics: Visually Pleasing and Creative	Many pictures/drawings are included; visually pleasing and creative with color	A couple pictures/drawings are included; visually pleasing and creative with some color	One picture/drawing is included; visually adequate and partly creative with some color	No drawing is included; little to no color used
Bibliography (2 pts)	2 points Includes a comprehensive list of at least five credible sources of information, formatted correctly.		1 pt Includes a list of less than five credible sources of information	0 No bibliography provided