ROCKS AND MINERALS

November 4th Scrimmage



Exploring the World of Science

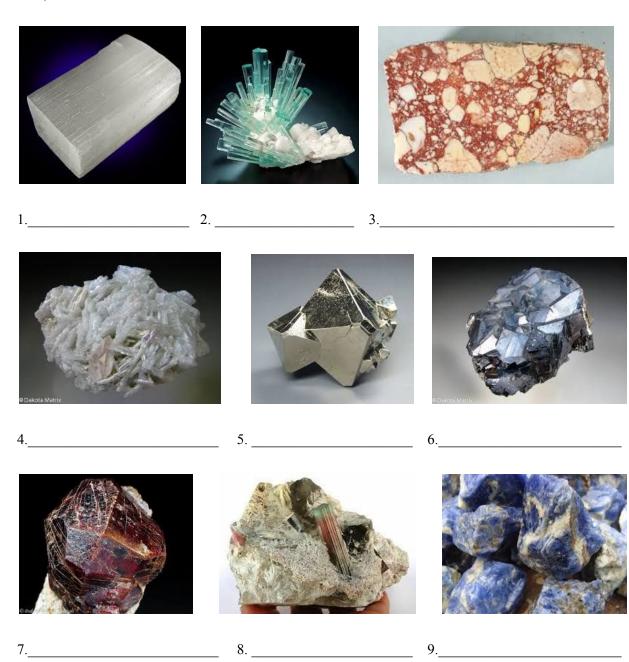
Name: _	 	
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Directions: DO NOT open the packet until prompted to. The test will be a 50 minute test and answer each question to the best of your ability.

Total:	/
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PART 1: Rocks and Minerals ID

For numbers 1-21, identify the rock/mineral and what group it is classified under. Spelling counts. (2 pts each)









10._____ 11.____ 12.____







13._____ 14.____ 15.___







16.______ 18._____







19.______ 20._____ 21._____

PART 2: Multiple Choice

a. Coquinab. Oolitec. Diatomite

For questions 22-32, sel	ect the best answer. (1 1	pt each)
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22. Which of the following is not a clastic rock?

	d.	Arkose
23.	Of	the following types of coal, which contains the least energy when burned?
	a.	Lignite
	b.	Anthracite
	c.	Bituminous
	d.	Subbituminous
24.	Wh	nat is the main ore of lead?
	a.	Pyrite
	b.	Galena
	c.	Bauxite
	d.	Sphalerite
25.	Wh	at is the most abundant mineral in earth's mantle?
	a.	Orthoclase
	b.	Plagioclase
	c.	Kaolinite
	d.	Olivine
26.	Wh	nich of the following minerals has the highest specific gravity?
	a.	Copper
	b.	Galena
	c.	Bauxite
	d.	Gold

28. From which environment is beryl formed?

27. Which of the following minerals does not have a botryoidal habit?

a. Pegmatite environment

a. Hematiteb. Malachitec. Fluorited. Jasper

b. Metamorphic environment

Hydrothermal environment Magmatic environment

- a. Fe₂O(OH)
- b. $Fe_2O(OH)_2$
- c. FeO(OH)
- d. Fe₂O₂(OH)

30. What is the luster of sphalerite?

- a. Vitreous
- b. Resinous
- c. Pearly
- d. Dull
- 31. Based on Bowen's Reaction series, at which temperature would minerals have the most calcium?
 - a. 800 °C
 - b. 1000 °C
 - c. 1400 °C
 - d. 3000 °C
- 32. What is another name for azurite?
 - a. Chessylite
 - b. Peacock ore
 - c. Television stone
 - d. Fool's gold

PART 3: Short Answer

Questions 33-37 refer to the mineral below.



33. What is the name of the miner

- 34. What is it composed of?
- 35. What is its hardness and specific gravity?
- 36. What is its crystal system?
- 37. When exposed to ultraviolet light, this mineral "glows" or fluorescences. What causes this phenomenon?

Questions 38-42 refer to the mineral below.



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- 39. What is this mineral mainly composed of?
- 40. What color does it's streak have?
- 41. What would happen if it were placed in hydrofluoric acid?
- 42. This mineral is piezoelectric, what does that mean?

43. Amethyst derives from the Greek word "amethystos". What was this mineral mainly used for during ancient Greece?
44. Occasionally, andesites contain large, visible grains of plagioclase, amphibole, or pyroxene. These large crystals are known as "phenocrysts." How are they formed?
45. Describe the difference between pumice and scoria as a result of their composition.
46. Aragonite and calcite both have the same chemical formula, CaCO3 , how do they differ?
47. What gives bornite it's colorful appearance?
48. What is the difference between basalt and gabbro?