

Name: \_\_\_\_\_

date: \_\_\_\_\_

period: \_\_\_\_\_

Ch. 11 earth's energy balance

test

52  
10 points

ngss chem

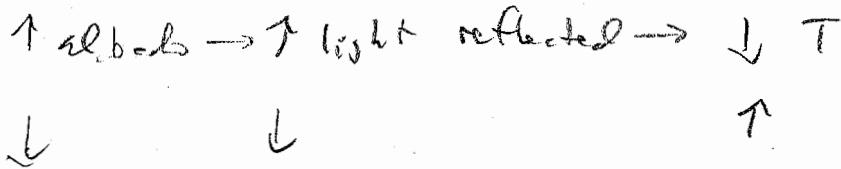
1. In regards to albedo, [15 points]

a. what is albedo?

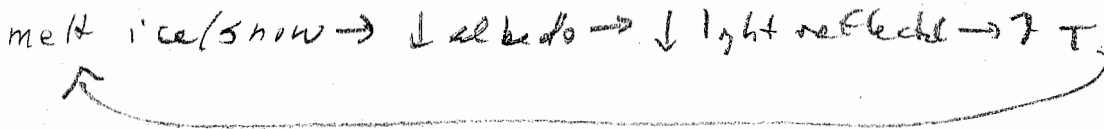
% light reflected

5pt @

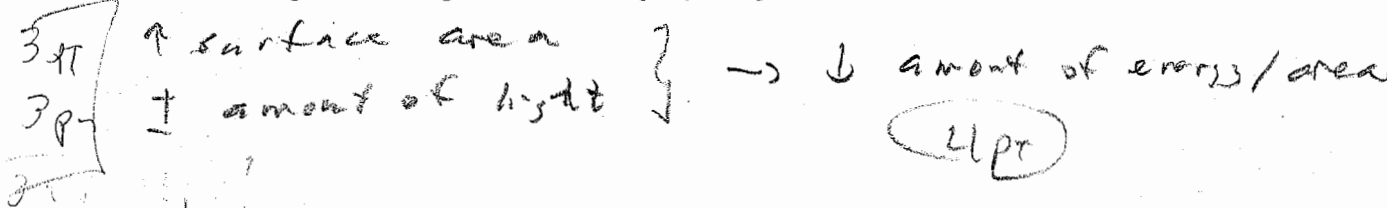
b. in the context of earth's energy balance, what is the role / impact of albedo on the temperature on earth?



c. describe the concept of the "ice - albedo" feedback



2. Why does the temperature decrease as the distance from the equator increase in either the north or south direction?  
hint: a drawing / sketch might be relevant. [10 points]



3. What is the basis / rationale of a wider range in the temperature on the moon compared to the earth during a continuous 24 hour period (i.e during the day versus at night)? Include concepts / factors (i.e. plural - there's more than one factor) involved in earth's energy balance in your response. [10 points]

4 moon: no atmosphere/cloud, which could moderate due to reflection; absorption/radiate, so 3 more extreme temperatures

3 + 3 pt

4. Describe the role / mechanism of the effect / impact of the glass in the green house simulation in determining the temperature in the green house. The glass in the green house is a model of the effect of atmospheric carbon dioxide on the temperature on earth; i.e. its role in global warming. [10 points]

- 2 pt incoming light goes thru glass
- 4 incoming light absorb/radiate by ground/plants in green house
- 4 radiated energy/heat absorb by glass, then is radiated back inside green house  
or  
reflected or insulate ) partial credit

5. In regards to coral bleaching, [5 points]

- a. what is / describe coral bleaching?  
2 pt
  - change color to white
  - loss of symbiote/algae

- b.. list two factors, associated with climate change, that contribute to coral bleaching  
3
  - ↑ ocean temperature
  - ↓ ocean acidification