Many Ways to Pass the Earth Science Regents

1. The same substance always has the same density

As pressure increases, density increases

3. As temperature increases, density decreases

4. Water expands when it freezes

5. Cyclic Relationships repeat and are predictable (ex Moon Phases, Tides, Seasons) Be able to tell the cycle length by measuring the time from crest to crest

6. Water is most dense at 4°C, when it is a liquid

7. The true shape of the Earth is an Oblate Spheroid, but from space it looks like a sphere.

8. The best model of the Earth is a sphere

9. The altitude of Polaris equals your latitude

10. To determine the earth's circumference, the altitude of the sun is needed at two locations

11. Latitude lines go east-west, just like the equator, but measure distances north or south.

Longitude lines go north-south, but measure distances east or west.

13. Longitude is based on observations of the sun

14. Use the reference tables

15. The closer the isolines (contour-isobar-isotherms-) are the steeper the slope or gradient

16.The earth rotates from west to east (24 hours)

17. The earth revolves counterclockwise (365 1/4 days)

18. All celestial objects appear to move west

19. The moon has phases because of the angle at which we view it (remember though that half is always lit)

20. Planets appear to go backwards (retrograde) as the earth passes them in space

21. Summer solstice is June 21st

22. Winter solstice is December 21st

23. Equinoxes: March 21st September 23rd

24. Equator always has 12 hours of day-light

25. The lower the altitude of the sun, the longer the shadow it casts

26. Foucault's pendulum and the coriolis effect prove the earth rotates

27. Earth is closer to the sun in file winter

28. The closer the planet is to the sun the higher it's velocity

31. Black absorbs/white reflects

32. The half-life of a radioactive element can't be changed

33. Ocean crust is thin and made of basalt

34. Continental crust is thick and made of granite

35. Energy moves from source to sink: high to low

36. Mountains form by uplift

37. Chemical weathering occurs mostly in warm, humid climates

38. Physical weathering occurs mostly in cold, humid climates (good for frost wedging)

39. Air moves clockwise and outward around a high

40. Air moves counterclockwise and inward around a low

41. Good absorbers of radiation are good radiators

42. Hottest part of the year is in July

43. Hottest part of the day is after 1:00p.m.

44. As temperature increases, air pressure decreases

45. As moisture increases, pressure decreases

46. Air pressure decreases with altitude

47. Highs are cool and dry; lows are warm and wet

48. Wind is due to air pressure differences

49. Wind blows from high to low pressure

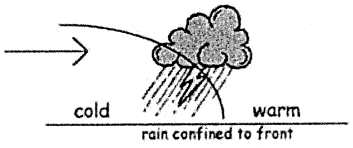
50. Wind is named from the direction that it is coming from

51. The accepted value is the correct answer.The measured value is the guess.

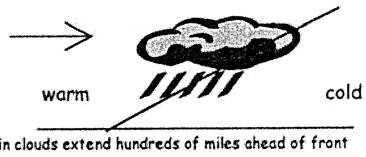
52. The closer the air temperature is to the dew point the greater the chance forprecipitation

53. Weather moves from west to east in the United States

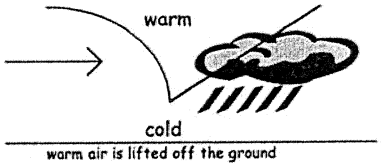
54. Cold Front:



55. Warm Front



56. Occluded Front



57. Cold fronts move the fastest

58. Porosity does not depend on particle size

59. As particle size increases, permeability increases

60. Capillarity increases when particle size decreases

61. Ep (potential evapotranspiration) depends on temperature (hotter is better)

62. Dynamic equilibrium means balance

63. Apparent diameter of objects (sun, moon) gets larger when the object is closer to Earth

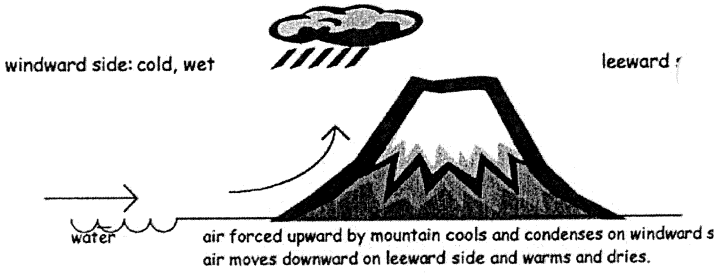
64. Vertical rays (overhead sun) can only occur between 23 1/2 °N and 23 1/2 °S

65. Index fossils are good time markers (widely spread, lived a short time) Humans would be good index fossils

66. Air cools as it rises

67. Water bodies moderate temperature (cool summers, warm winters

68. Expansional cooling:



69. Gravity causes all erosion

70. Streams are the number one agent of erosion

71. Stream velocity depends on slope and discharge

72. Velocity is fastest on the out side of meander bend

73. Heavy, round and dense particle settle out first Graded

74. Bedding (vertical sorting):biggest sentiments are on bottom

75. Glacial sentiments are unsorted, scratched, U shaped valley

76. Sedimentary rocks - strata - flat layers - most likely to have fossils

77. Igneous rock: cools fast: small crystals; cools slow: large crystals

78. Metamorphic- banded-distorted structure

79. Mineral properties depend on internal atomic arrangement

80. Silicon + oxygen = tetrahedron

81. Isostasy: earth's crust in equilibrium

82. Mid-ocean ridge - new earth being created-sea floor spreading

83. Trenches - earth being destroyed-subduction zone

84. P waves are faster than S waves

85. P waves - solids & liquids can pass through -- S waves solids only

86. *You need 3 seismometer stations to plot earthquake*

87.Undisturbed strata - bottom layer is oldest

88.Intrusion and faults are younger than the rock they are in