Review Part 2 Name _____ Period_____

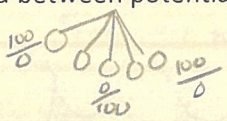
8.2 – Energy is Stored and transferred in a physical system

46. Describe how a wave transfers energy?
    waves vibrate atoms and atoms will move in the direction of the wave
47. Describe properties of a wave?
    a. Wave amplitude – height of the wave
    b. Wavelength – length of the wave
    c. Wave frequency
       how fast a wave passes one point
48. Describe the 3 types of mechanical waves?
    a. Transverse ∿∿∿ transfers light
    b. Longitudinal transfers sound
    c. Surface wave
       earthquake waves
49. Explain light? (How it travels in different mediums and what is it made up of.)
    Composed of all the colors ROYGBIV - travels fastes in gases slowest in solids
50. How does energy move with respect to energy producing source (give examples)?
    energy moves out in all directions a marble dropping in a pan of H_2O.
51. How does the type of medium a wave travels through effect the wave? Sound Solid: fastest gas: slowest Light solid: slowest speed gas: fastest speed
52. Why do light waves not require a medium?
    They have an electromagnetic wave with them
53. Describe how conduction transfers energy?
    heat transfers through Contact
54. Describe how convection transfers energy?
    heat rises cold sinks
55. Describe how radiation transfers energy?
    heat transfer through transfer of waves
56. Describe and draw a Digital wave?
    ⊓⊓⊓⊓ transfers data in 1 and 0
57. Describe and draw an Analog wave?
    ∿∿∿ transfers through a transverse
58. Describe is analog or digital is better for communication?
    digital is not disrupted by interference
59. Describe mass?
    amount of matter in an object
60. Describe speed and how we can increase speed?
    how fast an object moves - increase by increasing height of ramp
61. What is kinetic energy?
    energy of motion

62. What are 6 examples of kinetic energy?
Car moving. ball dropping, rollercoaster moving, airplane flying, throwing a ball, moving pendelum

63. What are 3 examples of potential energy?
Parked car. Rock at the top of a Mountain, Ball held in a hand

64. Explain how energy is transferred between potential and kinetic energy when you bounce a ball or swing a pendulum.



65. Why can't energy be destroyed?
Law of conservation of energy - energy is Not created or distroyed only transfered

8.4 – Interactions with natural systems and resources

66. Describe some effects of resource use? deforestation, sinkholes No ground water over use of minerals

67. List 3 cause and effects of climate change?

a. More CO_2

b. more H_2O vapor } all increase temp of the atmosphere

c. more methane gas

68. Describe how resources are unevenly distributed?
Not all rocks in Sedimtary, igneous, metamorphic are found in one spot.

69. Explain what renewable resources are?
resources that can be replentished over a short period of time

70. Explain what non-renewable resources are?
resources are not replentished over a shat period of time.

71. Give me 3 examples of renewable resources?

a. trees

b. animals

c. wind

72. Give me 3 examples of nonrenewable resources?

a. coal

b. fossil fuels

c. Rock/ minerals

73. Give me 3 examples of natural hazards thunderstorm hurricane Tsuamis

74. What factors help us predict natural hazards
Satillites and weather patterns

Know the following:

Cross Cutting Concepts	Give an example
1. Patterns	Cycling of Seasons Symetry of flowers or Snowflakes
2. Scale, proportion, and quantity	Size- cells - Timespan - hour, minute millennia
3. Cause and effect	motion of a single object Chemical reaction
4. Systems and system models	organisms machines
5. Energy and matter	input, output
6. Structure and function	Mechanical function- bridge design
7. Stability and change	moon orbiting the Earth - Evolution

Science and engineering practices:

1. Ask questions (science) and define problems (engineering)
2. Develop and use models
3. Analyze and interpret data
4. Use mathematics and computational thinking
5. Construct explanations and design solutions
6. Engage in an argument from evidence
7. Obtain, evaluate and communicate information