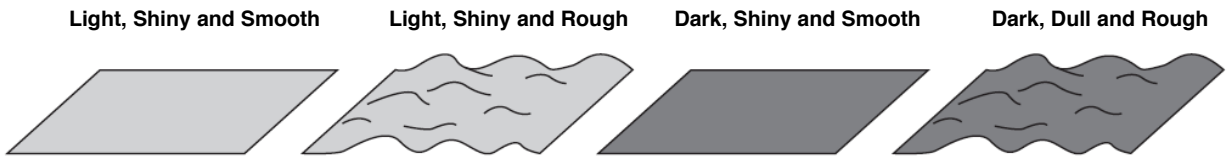
Name_____

Color and Texture Lab 1

Directions: Below are diagrams that symbolize different colored surfaces with different textures. The data table has been filled in for you. Please answer the questions following the data table. Temperatures are in Fahrenheit degrees.



Time	0	3	6	9	12	15	18	21	24	27	30
Light, Shiny, Smooth	40	41	42	43	44	45	46	48	50	52	54
Light, Shiny, Rough	40	42	44	46	47	49	50	52	53	54	57
Dark, Shiny, Smooth	40	44	47	49	55	59	63	67	70	75	79
Dark, Dull, Rough	40	45	49	53	58	64	70	75	79	84	90

1. Calculate the Rate of Change for all 4 substances and please show work!

Light, Shiny, Smooth

Light, Shiny, Rough

Dark, Shiny, Smooth

Dark, Dull, Rough

Name_____

2. How does different colors and textures affect absorption or reflection of heat?

_____

_____

3. Describe the relationship between color and rate of heating.

_____

_____

4. Describe the relationship between texture and rate of heating.

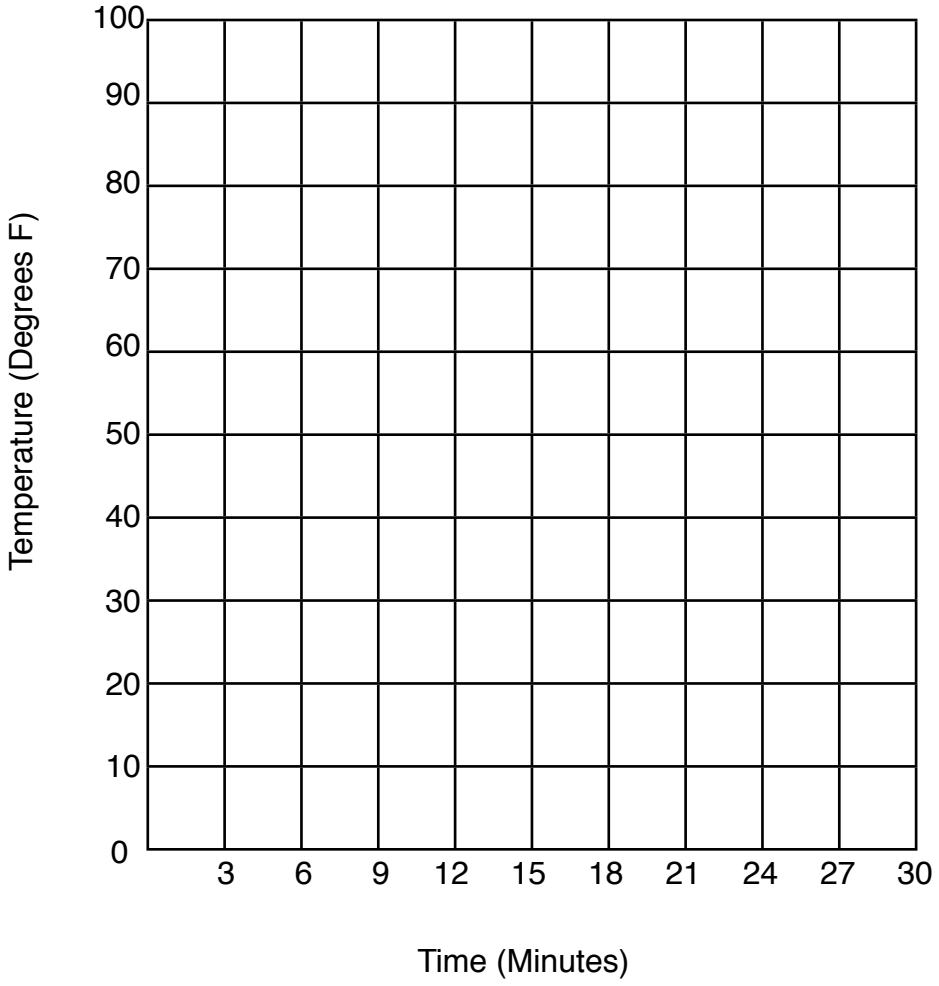
_____

_____

5. Why is a dark forest generally hotter than a field of freshly fallen snow?

_____

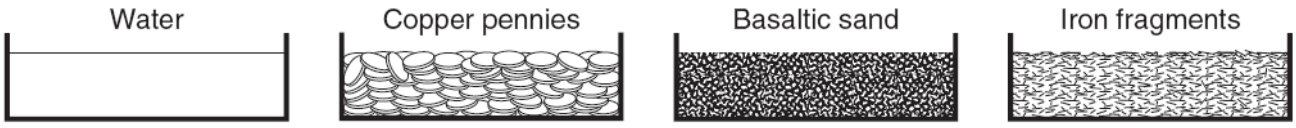
_____



Name_____

Specific Heat Lab

Directions: Below are diagrams that symbolize different substances made of different material. The data table has been filled in for you. Please answer the questions following the data table. Temperatures are in Fahrenheit degrees.



Time	0	3	6	9	12	15	18	21	24	27	30
Water	52	53	54	55	57	59	60	62	63	64	66
Copper Pennies	52	59	65	70	77	83	89	93	98	105	114
Basaltic Sand	52	55	57	59	62	66	68	71	74	77	80
Iron Fragments	52	56	59	62	65	70	72	76	80	83	89

1. Please calculate the Rate of Change for the following substances.

Water

Copper Pennies

Basaltic Sand

Iron Fragments

Name_____

2. What substance has the highest specific heat? (look at pg 1 ESRT) _____

3. What does it mean when a substance has a high specific heat? Think about the heating and cooling of a substance.

_____

_____

4. What substance has the lowest specific heat? (look at pg 1 ESRT) _____

5. What does it mean when a substance has a low specific heat? Think about the heating and cooling of a substance.

_____

_____

6. What is the relationship between specific heat and the rate of heating?

_____