**SNC 2P FINAL EXAM REVIEW** Name: _____

## REVIEW QUESTIONS

### Tissues, Organs, and Systems

### Terminology

*organ*
*cell*
*interphase*
*mitosis*
*cytokinesis*
*tissue*
*malignant*
*benign*

1. List 3 reasons why cell division takes place.

a. _____

b. _____

c. _____

2. Give an example of each type of tissue.

a. epithelial tissue

b. nerve tissue

c. connective tissue

d. muscle tissue

3. For each organ system indicate the main organs involved.

| Organ System | Organs |
|---|---|
| Respiratory | |
| Circulatory | |
| Digestive | |
| Nervous | |
| Excretory | |
| Muscoskeletal | |

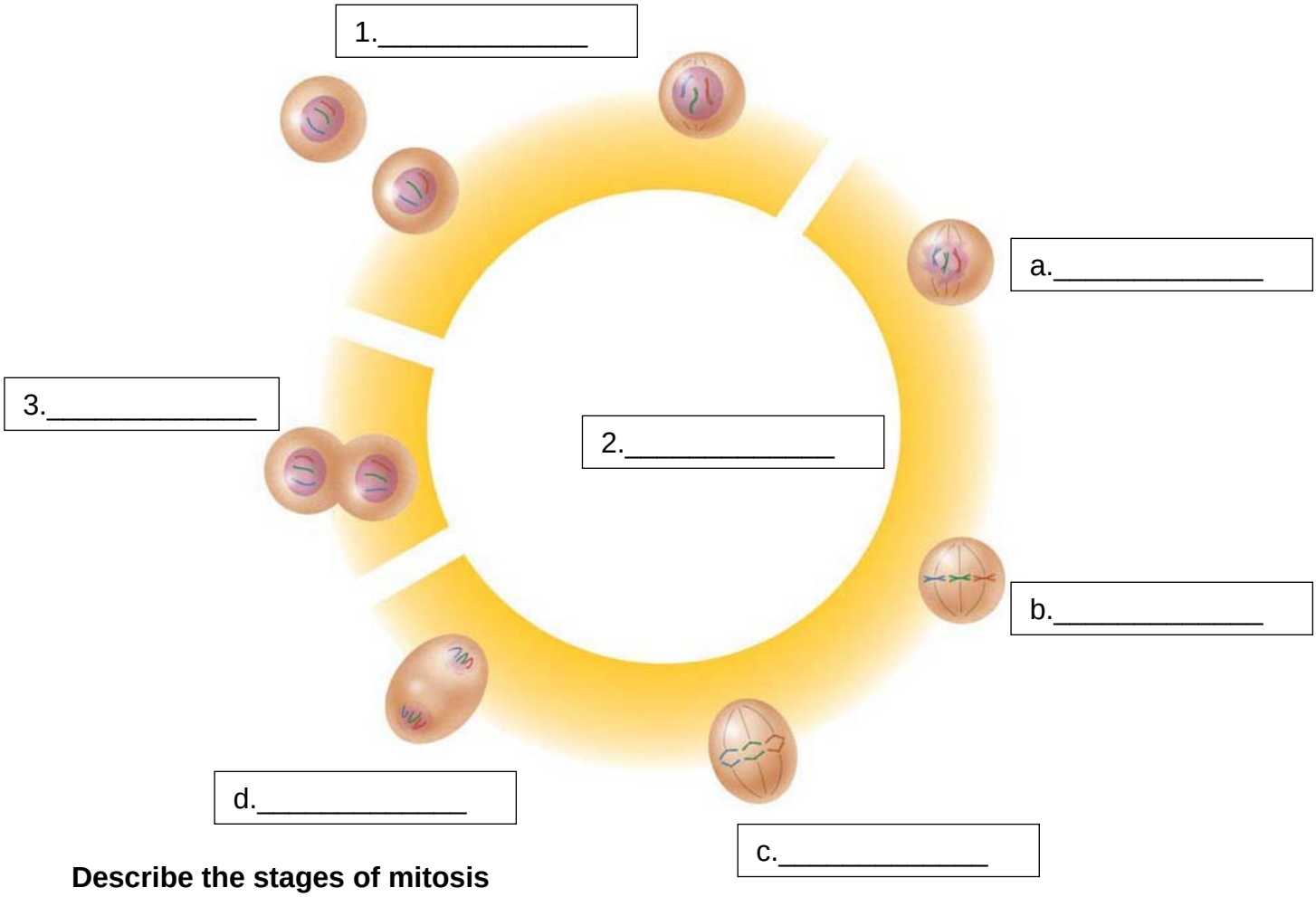
4. Indicate the pathway of the digestive system.

5. Indicate the pathway that air takes through the respiratory system, beginning at inhalation.

**SNC 2P FINAL EXAM REVIEW** Name: _____

6. Compare normal and cancer cells.

7. Label the steps of cell division.




**Describe the stages of mitosis**

**A**

**B**

**C**

**D**

**Describe the stage of interphase**

**Describe the stage of cytokinesis**

**SNC 2P FINAL EXAM REVIEW** Name: _____

**Chemistry**

1. Distinguish between the formation of a covalent and an ionic bond.

_____
_____
_____

2. Using the periodic table, give an example of an element that is a:

a. metal _____ b. Non-metal _____
c. Metalloid _____ d. Transition metal _____
e. Noble gas _____

3. Identify whether or not the following elements will form covalent or ionic compounds and predict the formulae of these compounds:

a) potassium and sulphur _____
b) carbon and iodine _____
c) hydrogen and fluorine_____
d) calcium and bromine _____

4. Balance the following equations and identify the type of reaction:

a) ___ Fe + ___ $H_2O$ → ___$Fe_2O_4$ + ___ $H_2$ TYPE: _____

b) ___ $K_2CO_3$ + ___ $H_3PO_4$ → ___ $K_3PO_4$ + ___ $H_2O$ + ___ $CO_2$ TYPE:_____

c) ___ Sb + ___ $I_2$ → ___ $SbI_3$ TYPE: _____

d) ___ $Pb(NO_3)_2$ → ___ PbO + ___ $O_2$ + ___ $NO_2$ TYPE: _____

5. Compare the properties of an acid and a base by filling in the following table:

| Property | Acid | Base |
|---|---|---|
| Texture | | |
| pH | | |
| Litmus | | |
| Taste | | |

**SNC 2P FINAL EXAM REVIEW** Name: _____

6. Name these compounds:

a) $Li_3N$ _____ f) $H_2O_2$ _____

b) $KNO_3$ _____ g) $Na_2S$ _____

c) $(NH_4)_2O$ _____ h) CO _____

d) $BaF_2$ _____ i) $NH_3$ _____

e) $H_2O$ _____

7. Give the formulae for these compounds:

a) carbon tetrachloride _____ f) zinc oxide _____

b) ammonium phosphate _____ g) magnesium sulfate _____

c) sulphur trioxide _____ h) sodium carbonate _____

d) sodium sulphite _____ i) lithium nitrate _____

e) silver iodide _____ j) aluminum oxide _____

8. Indicate the name and charge on the following elements.

F _____

$NO_3$_____

O _____

Al _____

9. With the help of an example, explain how a neutralization reaction occurs.

_____

_____

_____

10. What is the pH scale? Explain how you can use an indicator to determine the pH of a substance. _____

_____

_____

_____

**SNC 2P FINAL EXAM REVIEW** Name: _____

**Light and Optics**

Describe 3 different types of electromagnetic waves and give an example of a use/phenomenon for each.

a) _____
b) _____
c) _____

1. Describe the difference between objects that are transparent, translucent, and opaque.

_____
_____
_____

2. Explain the difference between specular and diffuse reflection.

_____

3. What are the SALT properties for an image in a plane mirror?

S: _____
A: _____
L: _____
T: _____

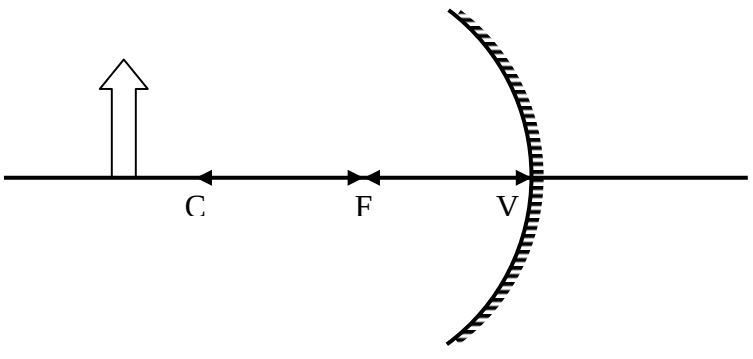
4. Summarize the functions of the lens, pupil, cornea, iris, and retina.

Lens: _____
Pupil: _____
Cornea: _____
Iris: _____
Retina: _____

5. What is the difference between hyperopia and myopia?

Hyperopia: _____
Myopia: _____

7. *For each diagram, draw the **incident rays**, the **reflected rays**, and the **image** for the curved mirrors shown below, and then record in the **image characteristics (SALT)**. For accurate results, use a <u>ruler</u> and <u>protractor</u>* to complete the following diagrams.




**2 b. Converging mirror**

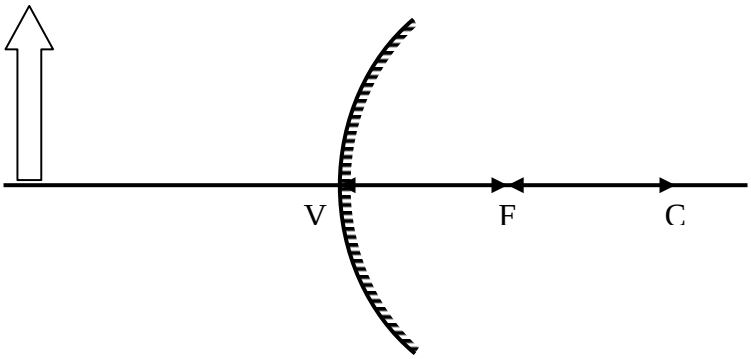
**S:**

**A:**

**L:**

**T:**

**SNC 2P FINAL EXAM REVIEW** Name: _____



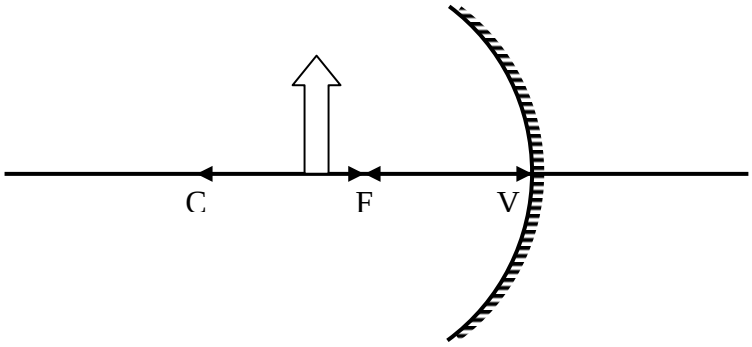

**2 a. Converging mirror**

**S:**

**A:**

**L:**

**T:**



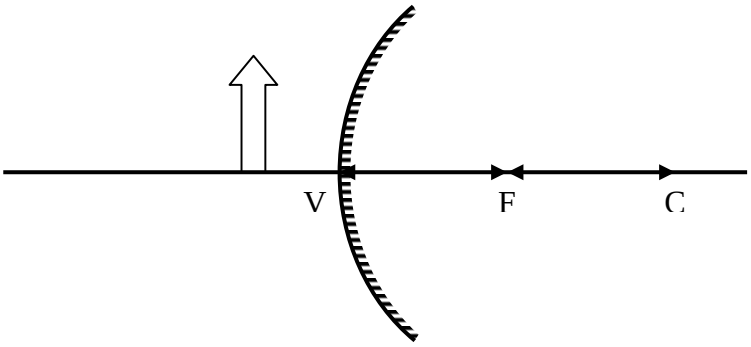

**2 c. Converging mirror**

**S:**

**A:**

**L:**

**T:**



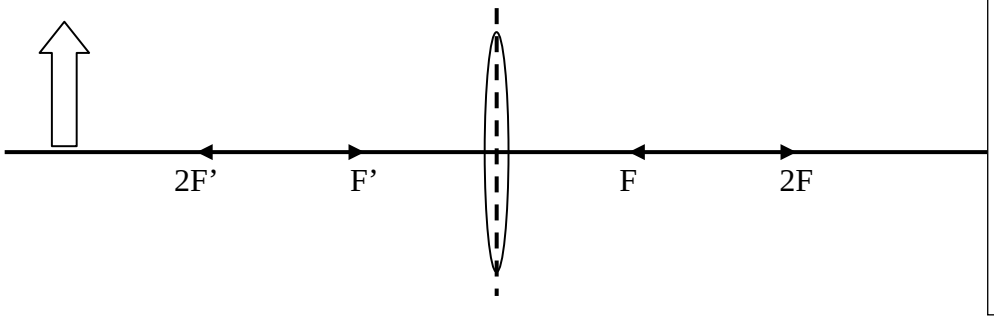

**3 b. Diverging mirror**

**S:**

**A:**

**L:**

**T:**




**4 a. Converging Lens**

**S:**

**A:**

**L:**

**T:**

**SNC 2P FINAL EXAM REVIEW** Name: _____

## Climate Change

### Terminology

| | | |
|---|---|---|
| Radiation | weather | albedo |
| Climate | thermal energy | greenhouse effect |
| Greenhouse gas | convection current | proxy record |
| Ice age | interglacial period | anthropogenic |
| Carbon footprint | carbon sink | atmosphere |

1. Explain what the natural greenhouse effect is?

2. What gases are involved?

3. Explain how convection works and give an example of convection in Earth's climate system.

4. What is anthropogenic greenhouse effect? Explain it.

5. What gases are involved and how are they produced?

6. Name 3 pieces of evidence that suggest global climate change is happening.

7. Why is climate change considered a global problem?

8. What are clean energy sources and give examples?

9. Describe the expected global impacts of climate change.

10. What are proxy records and explain the different types?

11. What is the great conveyor belt and why is it important?