















Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## ***BIOLOGY – PROBLEM SET***

### **CHAPTERS 11 & 14: HEREDITY**

IN ORDER TO RECEIVE FULL CREDIT FOR ANSWERS, YOU MUST DO ALL OF THE UNDERLINED WORDS IN EACH QUESTION.

1. Identify and describe two specific examples of **levels of organization** that relate to a topic in chapters 11 & 14. [2 points]
2. Identify, describe, and draw one example of a **lock-and-key fit** OR a **structure-function relationship** OR a **surface area to volume ratio** that relates to a topic in chapters 11 & 14. [3 points]
3. Identify and describe one example of **matter** OR **energy** that relates to a topic in chapters 11 & 14. [1 point]
4. Identify and describe one example of **evolution** that relates to a topic in chapters 11 & 14. [2 points]
5. Describe and interpret the meaning of the following chart: [2 points]

Character	Dominant Trait	×	Recessive Trait	F <sub>2</sub> Generation Dominant: Recessive	Ratio
Flower color	Purple 	×	White 	705:224	3.15:1
Seed color	Yellow 	×	Green 	6,022:2,001	3.01:1
Seed shape	Round 	×	Wrinkled 	5,474:1,850	2.96:1
Pod shape	Inflated 	×	Constricted 	882:299	2.95:1
Pod color	Green 	×	Yellow 	428:152	2.82:1
Flower position	Axial 	×	Terminal 	651:207	3.14:1
Stem length	Tall 	×	Dwarf 	787:277	2.84:1