Name: _____ Date: _____ Group: _____

STUDENT JOURNAL

Part I: Anatomy of a Flower

1. What is the definition of a flower?

2. Why are many flower petals so brightly colored? What advantage does this give to the plant? Explain.

3. Describe the male reproductive organ of a flower. What are the parts, and what is the function of those parts?

4. Describe the female reproductive organ of a flower. What are the parts, and what is the function of those parts?

5. Describe what happens in a plant after the egg is fertilized.

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Part I: Anatomy of a Flower, continued

As you dissect the flower, draw each structure as it appears to the naked eye AND as it appears when magnified by the hand lens.

	Petal	Sepal
Naked Eye Observation		
Hand Lens Observation		

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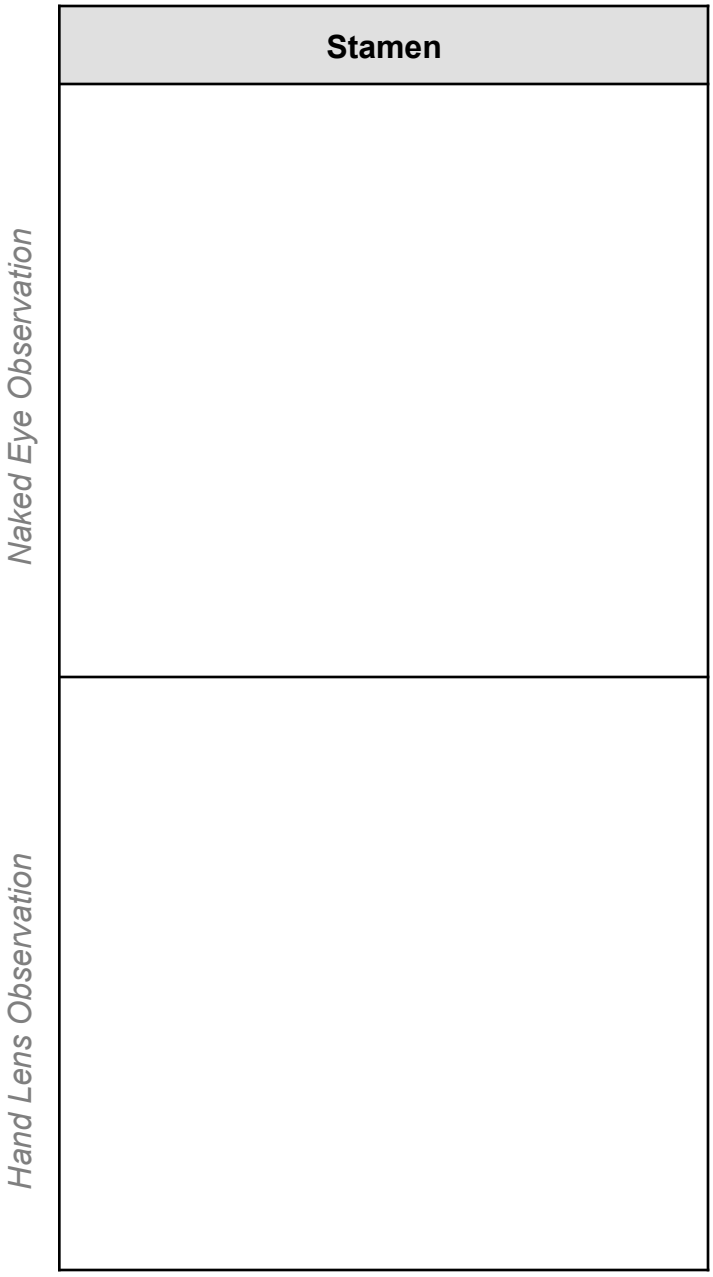
Part I: Anatomy of a Flower, continued

As you dissect the flower, draw each structure as it appears to the naked eye AND as it appears when magnified by the hand lens.



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Part I: Anatomy of a Flower, continued

As you dissect the flower, draw each structure as it appears to the naked eye AND as it appears when magnified by the hand lens.

	Carpel (ovary and ovule)	Carpel (stigma and style)
Naked Eye Observation		
Hand Lens Observation		

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Part II: Plant Responses

1. Plants are able to respond to their environment even though they can not move. Explain what tropism is and what abiotic factors affect it.

2. What is phototropism?

3. What is gravitropism?

4. Explain how plants respond to a light source, usually the Sun. What is occurring inside the plant, and what hormone is involved? **Be specific.**

5. Describe what would occur if you turned a growing seedling on its side (without disturbing the root system.) What is occurring inside the plant, and what hormone is involved? **Be specific.**

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Part II: Plant Responses, continued

6. How could you observe gravitropism in action? List each step, then draw a diagram to illustrate an experiment you could conduct in your home or classroom. Make sure to illustrate the plant at all phases of the experiment. For example, illustrate the plant before you start the experiment. Then, illustrate how you may have manipulated the plant. Finally, illustrate the end results of your gravitropism experiment. Use a separate piece of paper, if necessary.

Steps of Gravitropism Experiment:

Illustrations of Gravitropism Experiment:

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Reflections and Conclusions

1. Identify and describe two characteristics you learned that contribute to the success of angiosperms.

_____
_____
_____

2. Can angiosperms be considered male or female? **Explain.**

_____
_____
_____

3. Explain how different flower structures might interact with a bee, for example, to help the plant reproduce successfully.

_____
_____
_____

4. What are the similarities and differences between phototropism and gravitropism?

_____
_____
_____
_____

5. You are taking a walk in the woods and come across a strange young tree. A much larger tree had fallen on the young tree some time ago, pushing the trunk of the young tree all the way to the ground, but the young tree is still growing. Describe how this strange young tree might look. Make sure to include how both phototrophic and gravitrophic affects shaped the growth of the young tree.

_____
_____
_____
_____
_____

6. Using all of the following terms, develop a graphic organizer. Use additional paper, if needed.

   Terms: Flower, reproduction, stamen, carpel, pistil, sepal, petal, anther, filament, ovary, ovule, stigma, style, pollen, angiosperm, dissect, seed