Plant Science Merit

Some answers will need to be written on a separate sheet of notebook paper and placed into your workbook.

1. Make and use a germination seed tester to test ten seeds each from FOUR of the following plants: corn, cotton, alfalfa, beans, clover, wheat, rice, rye, barley, melon, and tomato. Determine the percent of live seeds.

Plant	Number of Seeds	Number of Live Seeds	Percent
	10		
	10		
	10		
	10		

Divide column 3, "Number of Live Seeds," by column 2, "Number of Seeds," to obtain the percentage.

2. Grow at least eight plants (two each of the four varieties germinated in Requirement 1) for at least five weeks using either a garden or a container. Keep a weekly record of your plants' growth.

Growth in Inches

Plant	Week 1	Week 2	Week 3	Week 4	Week 5

Leader's Initials

Date_____

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Date_____

3. Propagate at least two plants by either taking cuttings from established plants or grafting parts of two established plants into each other. Grow the plants for at least five weeks using either a garden or a container. Keep a weekly record of your plants' growth.

Plant	Week 1	Week 2	Week 3	Week 4	Week 5

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4. Write a 300-word report on plant science using any or all of the following Scripture verses. Matthew 7:15–20; Matthew 13:3–23; Matthew 13:24–30; Luke 6:43–45; Luke 13:6–9; John 12:24; John 15:1–8.

   Place your work into your workbook.

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5. Determine the method you would use to control weeds in either a garden or a field of corn and explain it.

   _____

   _____

   _____

   _____

   _____

   _____

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6. Choose a crop from your state or region. Write a 250-word report about its importance to the economy of your state or region.

   Place your work into your workbook.

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7. Determine the three most common pests you must control in either a garden or in a field of corn. Explain the method you would use to control those pests.

Pest	Methods of Control for Each
1. _____	a. _____ b. _____
2. _____	a. _____ b. _____
3. _____	a. _____ b. _____

Why did you select those control methods for pest 1?

_____

_____

Why did you select those control methods for pest 2?

_____

_____

Why did you select those control methods for pest 3?

_____

_____

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8. Conduct an experiment to determine what nutrients must be in the soil to grow beans. Record your results and write a 100-word report.

Growth in Inches

Plant	Week 1	Week 2	Week 3	Week 4	Week 5
"No fertilizer"					
"Fertilizer—half strength"					
"Fertilizer—full strength"					
"Fertilizer—double strength"					

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Date_____