



# Plant Growth Study

Name: \_\_\_\_\_

Learn how plants use enriched soil, water and sunlight for plant growth and survival. Record your data using copies of the Plant Growth Chart on page 2, and then log your data into copies of the Plant Growth Data Graph on page 3. Analyze and interpret your findings on page 4.

**Statement of Purpose:** To determine whether enriched soil, water and/or sunlight is important for plant growth.

**Write your Hypothesis:** \_\_\_\_\_

Plant identical seedling plants that are 1-2" tall and follow the study details below. For the plants' spacing requirements look at the Alabama Cooperative Extension System's Planting Guide (ANR-63).

- \*\*\*\*\*
- Study 1**  
enriched soil
- ❖ **Group A:** Plant 4 seedlings in soil enriched with compost or human hair, water each of them with  $\frac{1}{2}$  (a half) cup of water 3 times a week, and make sure that they get the same amount of sunlight (approximately 6 hours a day).
  - ❖ **Group B:** Plant 4 in regular clay soil (dug up from outside not a garden center), water each of them with  $\frac{1}{2}$  (a half) cup of water 3 times a week, and make sure that they get the same amount of sunlight (app. 6 hours a day).
- \*\*\*\*\*
- Study 2**  
water
- ❖ **Group C:** Plant 4 seedlings in soil enriched with compost or human hair, water each of them with  $\frac{1}{2}$  (a half) cup of water 3 times a week, and make sure that they get the same amount of sunlight (approximately 6 hours a day).
  - ❖ **Group D:** Plant 4 in soil enriched with compost or human hair, water each of them with  $\frac{1}{4}$  (one-fourth) cup of water 1 time a week, and make sure that they get the same amount of sunlight (approximately 6 hours a day).
- \*\*\*\*\*
- Study 3**  
sunlight
- ❖ **Group E:** Plant 4 seedlings in soil enriched with compost or human hair, water each of them with  $\frac{1}{2}$  cup of water 3 times a week, and make sure that they get the same amount of sunlight (approximately 6 hours a day).
  - ❖ **Group F:** Plant 4 in soil enriched with compost or human hair, water each of them each of them with  $\frac{1}{2}$  cup of water 3 times a week, and make sure that they do not get any sunlight by putting them under a box or in a windowless closet.
- \*\*\*\*\*



Use a ruler to measure the height of each plant once a week. Record the measurements below.

<i>*Make copies of this Plant Growth Chart as needed.</i> <b>Plant Description</b>	<b>Week ___:</b> <hr/> (start date)	<b>Week ___:</b> <hr/> (date)	<b>Week ___:</b> <hr/> (date)	<b>Week ___:</b> <hr/> (date)	<b>Week ___:</b> <hr/> (date)	<b>Week ___:</b> <hr/> (end date)
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✓ **Enriched soil:** with fertilizer such as compost or human hair      ✓ **Sunlight:** app. 6 hours of sunlight a day      ✓ **Water:** 3 times per week





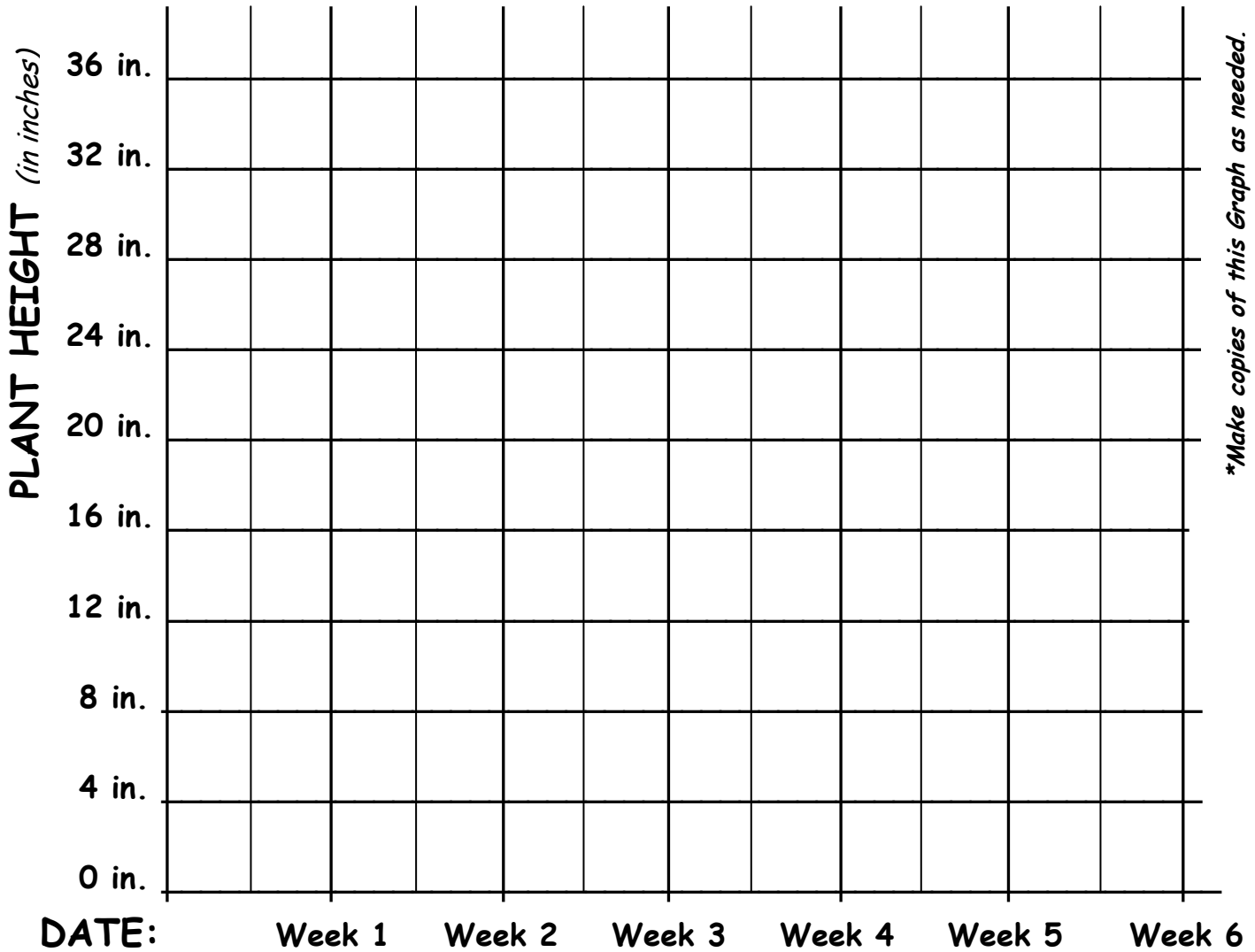
# Plant Growth Study Graph



Name: \_\_\_\_\_

Log your Plant Growth Data in the graph below.

Enter data for Groups A & B to analyze plants grown in enriched soil versus regular soil, Groups C & D to analyze plants watered 3 times a week versus 1 time a week, or Groups E & F to analyze plants grown in sunlight versus no light.



\*Make copies of this Graph as needed.

\*Plants in Group \_\_\_ = *Blue*      \*Plants in Group \_\_\_ = *Red*

- Which Group of plants grew more? \_\_\_\_\_ By how many inches? \_\_\_\_\_
- Which plant grew the most? \_\_\_\_\_ How tall was it at Week 6? \_\_\_\_\_
- Did any of the plants die?  Yes  No If yes, how many died? \_\_\_\_\_
- During which week did Group \_\_\_ grow the most? \_\_\_\_\_
- During which week did Group \_\_\_ grow the most? \_\_\_\_\_



