

Name\_\_\_

### Dino Data Table

Day 1	Day 2	Day 3	Day 4	Day 5	
Length (cm)					
Height (cm)					
Thickness (cm)					
Perimeter (cm)					
Area (cm <sup>2</sup> )					
Mass (g)					
Volume (mL)					
Float/Sink in H <sub>2</sub> O?					
Density (g/mL)					

Note: Due to measurement limitations, area rather than surface area is measured.



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## Outline of Grow-Dino for Days 1–5

Graph 1 — Grow-Dino Measurement Lab

Each square =  $1 \text{ cm}^2$ 

# Length, Height, Thickness, and Perimeter

#### Graph 2 — Grow-Dino Measurement Lab

Label the *x*-axis of this graph "Days" and the *y*-axis "Centimeters." Graph the change in length, height, thickness, and perimeter of the Grow-Dino for each day on this graph. Draw and label a separate line for each.

#### Title of Graph:

## Mass of Grow-Dino

#### Graph 3 — Grow-Dino Measurement Lab

Label the *x*-axis of this graph "Days" and the *y*-axis "Mass (in grams)." Graph the change in mass of the Grow-Dino for each day on this graph.

### Title of Graph:



# Volume of Grow-Dino

#### Graph 4 — Grow-Dino Measurement Lab

Label the *x*-axis of this graph as "Days" and the *y*-axis "Volume (in mL or  $cm^3$ )." Graph the change in volume of the Grow-Dino for each day on this graph.

### Title of Graph:



## Independent Graph

#### Graph 5 — Grow-Dino Measurement Lab

There are many other changes in measurement, which can be shown graphically such as mass vs. density, density vs. time, area vs. time, etc. Choose one of these, or one of your own, and graph it below. Remember to label each axis appropriately.

### Title of Graph

### Post-Lab Questions

#### Grow-Dino Measurement Lab

Use the appropriate graph to answer the following questions.

- 1. How many times larger in area do Grow-Dinos get from start to finish? (See Graph 1.)
- 2. Do all four of the measurements on Graph 2 increase at the same rate? Explain. On what days is the rate of growth the greatest? The least? Why does the rate of growth change?
- 3. How much of the mass of the Grow-Dino is water on each day? (See Graph 3.)
- 4. How many times its own weight can the Grow-Dino material absorb? (See Graph 3.)
- 5. In what other ways might the Grow-Dino material be useful?
- 6. Explain what the information on Graph 5 provides and why it is useful.
- 7. The claim made on the box that holds the dinosaur packages says "Grows over 600% larger in water!" Is this claim true—did the Grow-Dino grow 600%? If so, what measurements increased by 600%? What measurements did not increase by 600%?