

Name _____ Teacher _____ Date _____

3.2: Observing Mealworms Eating Worksheet

Use this worksheet to complete the mealworms eating investigation and to record your observations, measurements, and class results.

A. Steps in the investigation: *Check the box as you complete each step.*

1. Get a small container for your mealworms during the investigation. Make sure the container is deep enough for mealworms to not crawl out, and has holes in the lid for ventilation so your mealworms have air.
2. If your mealworms are already in their meal bedding and container, you will need to separate the mealworms from the bedding. Using the end of a pencil, separate all the worms from the meal. If your worms come already separated from bedding, skip this step.
3. Place an empty small container onto the digital balance and “zero” out the scale. Then gently pour about 15 g of mealworms into this container. Record on your worksheet the “Mass of the mealworms before” box in Part C.
4. Cut a small piece off of the potato (about 10g) and place on the scale. Record on your worksheet the “Mass of the potato before” box in Part C.
5. Place the piece of potato that you massed into the container with worms.
6. Measure the mass of the entire container with all of its contents. Record on your worksheet the “Mass of whole container before” box in Part C.
7. Place the small container with the worms and food into a larger sealable 9.5 cup container.
8. Place a Petri dish with about 25 ml of blue BTB into the large sealable 9.5 cup container near the container with the mealworms. Record the color of the BTB in the “Color of BTB before” box. Seal the large sealable 9.5 cup container.
9. Complete Part B below with your macroscopic observations.
10. Final Mass: After 24 hours you will measure the mass of the whole container, the potato, and the mealworms. Use the same “zeroing” procedures as above. Record mass measurements in the “Measurements After” boxes. Observe the color of the BTB and record it in the “Changes in color of BTB” box.

B. Observations during the investigation: *Record your macroscopic-scale observations below. Use drawings and/or words to show what is happening when mealworms eat.*

C. Measurements during the investigation: *Record your measurements in the table.*

Measurements BEFORE	Measurements AFTER
Mass of mealworms before Time: _____ Mass: _____ g	Mass of mealworms after Time: _____ Mass: _____ g Change in mass: _____ g
Mass of potato before Time: _____ Mass: _____ g	Mass of potato after Time: _____ Mass: _____ g Change in mass: _____ g
Mass of whole container before Time: _____ Mass: _____ g	Mass of whole container after Time: _____ Mass: _____ g Change in mass: _____ g
Color of BTB before Time: _____ Color of BTB: _____	Changes in color of BTB after Time: _____ Color: _____ Change in color: _____

D. Results for the whole class: *Make notes about how the observations and measurements of other groups compared to yours. Describe patterns in your class data.*

Changes in mass of the mealworms:	Changes in mass of the potato:
Changes in mass of the whole container:	Changes in color of BTB: