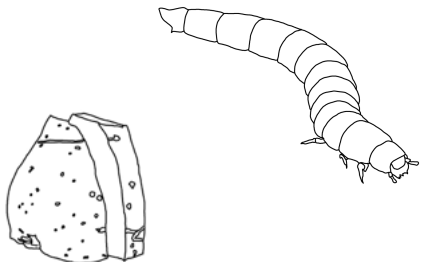


### 3.1 Predictions and Planning Tool: Investigating mealworms eating, growing, and moving

#### A: Your ideas about what happens when mealworms eat, grow, move, and breathe

 <p>Potato (mealworm food)</p>	<p>Matter Movement: Draw and label arrows showing your ideas about materials moving into and out of the mealworms.</p> <p>Matter Change: Explain your ideas about chemical changes that are taking place inside the mealworms. <i>Remember:</i></p> <ul style="list-style-type: none"> <li>• <i>Materials that mealworms use (arrows going in) are reactants in chemical changes</i></li> <li>• <i>Materials that mealworm produce (arrows going out) are products of chemical changes</i></li> </ul> <p>Energy Change: Explain your ideas about energy changes that are taking place inside the mealworms.</p>
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#### B. Your ideas and predictions about using investigation tools for evidence about the Three Questions

- How can you use three tools to detect or measure matter and energy movement and changes?
  - A digital balance that can measure matter movement by detecting very small changes in mass.
  - BTB that can detect matter change by changing color if there is more carbon dioxide in the air.
  - Your senses: You can observe what happens before, during, and after the mealworms eat, grow, move, and breathe.

Question	Which tool(s) (circle)?	What data will your tool(s) collect?	What do you predict will happen?
How will you measure and observe <u>movement of matter</u> ?	Scale BTB Senses		
How will you detect and record <u>matter changes</u> ?	Scale BTB Senses		
How will you detect and observe <u>energy changes</u> ?	Scale BTB Senses		

#### C. Your plans for the investigation

Use the back of this page or a separate worksheet to draw and explain your ideas about how to set up the investigation and use the tools.