### **POE Integrated Science Worksheet 3**



| Name:           |       | (    | ) |
|-----------------|-------|------|---|
| Class:          | Date: | <br> |   |
| Worksheet 7.4.1 |       |      |   |

#### 7.4 How do green plants obtain energy?

- Concept 1: Like all living things, plants need energy.
- Concept 2: Green plants carry out (~ do) photosynthesis.
- Concept 3: Through photosynthesis, green plants can convert light energy into chemical energy (which is stored in glucose, a type of sugar).

#### Question:

# Do plants eat? If not, how can plants get energy?

| If not, how can plants get energy? |                |              |                                |                            |  |  |  |
|------------------------------------|----------------|--------------|--------------------------------|----------------------------|--|--|--|
| Draw a mind map to illustrate      | your idea:     |              |                                |                            |  |  |  |
|                                    |                |              |                                |                            |  |  |  |
|                                    |                |              |                                |                            |  |  |  |
|                                    |                |              |                                |                            |  |  |  |
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|                                    |                |              |                                |                            |  |  |  |
|                                    |                |              |                                |                            |  |  |  |
|                                    |                |              |                                |                            |  |  |  |
| Photosynthesis:                    |                |              |                                |                            |  |  |  |
| +                                  |                |              | +                              |                            |  |  |  |
|                                    | . ,,           | absorbed by  |                                | [ ]                        |  |  |  |
| obtained from air obta             | ined from soil | chlorophylls | many glucose particles combine | released to the atmosphere |  |  |  |
| L                                  |                |              | to form starch                 |                            |  |  |  |

## Do plants need light for carrying out photosynthesis?

Do you want to test this?

| Set-up 1                                 | Set-up 2                         | Set-up 3 |                                 |
|--|----------------------------------|----------|---------------------------------|
|  |                                  |          | <ul><li>Aluminum foil</li></ul> |
| Much light                               | Some light                       | No light |                                 |
|  | After 2 weeks, what will happen? |          |                                 |
| Prediction: <b>Draw what will happer</b> | 1?<br>                           |          |                                 |
|  |                                  |          |                                 |
| Explanation: Why do you have su          | ch prediction?                   |          |                                 |
|  |                                  |          |                                 |
| Observation (after 2 weeks): Draw        | the result                       |          |                                 |
| CDSGIVATION (anter 2 weeks). Draw        | uic resuit.                      |          |                                 |