## Formulating Hypothesis Observation Prompt Making Observations and Inferring Conclusions

## Investigative Science Learning Environment (ISLE) Framework

## Sample Investigation

## **Investigating Plant Growth**

Observation Prompt: Students can watch the following video and take note of any observations they make relating to the plant growth.

<u>Formulating Hypothesis:</u> Students can use their observations to come up with a testable hypothesis to investigate their observations.

Question prompts to prompt discussion:

- i. What would stop the seed growing?
- ii. If you could take away one thing what would it be to stop the growth?
- iii. Where does the energy come from to grow?
- iv. Why is the plant growing?
- v. Do you think the leaves are important for growth?

<u>Investigating Hypothesis:</u> Using this link, <u>Growing Plants Gizmo: Lesson Info:</u> <u>ExploreLearning</u>, students can test their hypotheses in a controlled environment.

**(NOTE:** The link only allows for a five minute free trial for simulations)

The experiment can also be conducted in the lab, where students can draw a comparison between the simulation model and the experiment.



<u>Making Observations and Inferring Conclusions:</u> Students can record their observations and diagrams of the experimental set-up. Through discussing their observations and sharing ideas with their peers the teacher can guide the students as they infer conclusions.

<u>Agree or Disagree with Hypothesis?</u>: Students can now decide whether their investigation has proven to agree or disagree with their original hypothesis. Students may also wish to change their hypothesis now that they have new information after the investigation.

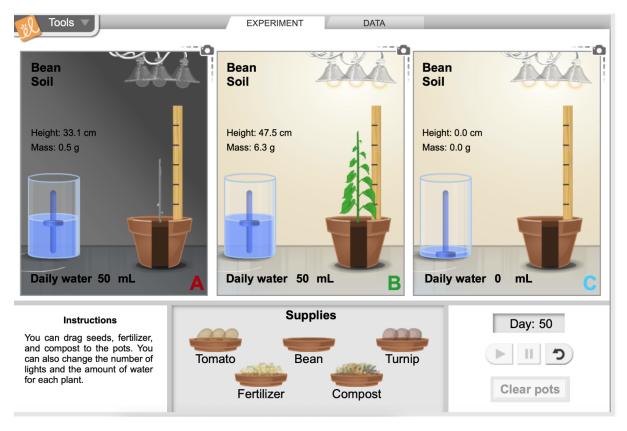


Fig 1. Screenshot from Growing Plants Gizmo: Lesson Info: ExploreLearning

