



Name/Group Members: _____

Inquiry Question:

How does covering up tomato plant leaves affect their growth?

Conclusions: Answer the inquiry question and relate it to the dependent and independent variables.

When plant leaves are covered, plants do not grow as well because they do not undergo as much photosynthesis as they would normally and so growth is less.

Evidence: Describe the specific observations and data that support the conclusion(s).

- Plants with leaves not covered in aluminum foil grew on average 5 cm taller than plants with leaves covered.
- When the aluminum foil was removed from the plant leaves, the leaves were yellow.
- The plants with leaves covered in aluminum foil did not grow as many leaves as the plants without aluminum foil.



Reasoning: Explain your reasoning by connecting the evidence to the conclusion(s), as well as to known scientific rules and principals

- Covering up the leaves with aluminum foil kept light from reaching the leaves
- Leaves are where most photosynthesis happens in plants
- Photosynthesis requires energy from light in order to happen
- Without light, plants have fewer chlorophyll molecules
- Lack of chlorophyll or deficiency of chlorophyll results in chlorosis or yellowing of leaves
- If photosynthesis isn't happening as much, the plant will not have as much energy for itself (glucose and carbohydrates)
- With less energy being stored, a plant will not be able to grow as well