

Growing Potatoes in Different Light Conditions

Name: _____

Date: _____

Experiment Start Date: _____



QUESTION

How do different light conditions affect the growth of potato plants?



HYPOTHESIS

If potato plants are grown in different light conditions, then _____
because _____.

BRIGHT LIGHT
(Direct Sunlight)



LOW LIGHT
(Indoor Light)



DARKNESS
(No Light)



MATERIALS

- 3 potato pieces with "eyes" (or small seed potatoes)
- 3 pots or large containers (with drainage holes)
- Potting soil
- Water
- Labels or tape and marker
- Ruler
- Notebook or experiment journal
- Camera or phone (optional)



PROCEDURE

1. Prepare the Pots: Fill each pot with potting soil.
2. Plant the Potatoes: Plant one potato piece in each pot, about 3–4 inches deep, with the "eyes" facing up.
3. Label the Pots:
 - Pot 1 – Bright Light (Direct Sunlight)
 - Pot 2 – Low Light (Indoor Light)
 - Pot 3 – Darkness (No Light)
4. Place the Pots:
 - Pot 1 in a spot with direct sunlight for several hours each day.
 - Pot 2 in a spot with indirect or low indoor light.
 - Pot 3 in a completely dark place (closet or box).
5. Water all pots equally. Keep the soil moist, but not soggy.
6. Observe and record your data every 2–3 days for 4–6 weeks.



DATA TABLE

Record your observations every 2–3 days.

Date	Pot 1 Bright Light	Pot 2 Low Light	Pot 3 Darkness	Plant Height (cm)			Observations (color, leaf size, stem strength, etc.)
				Pot 1	Pot 2	Pot 3	



ANALYSIS

1. Which plant grew the tallest? _____
2. Which plant had the darkest green leaves? _____
3. Which plant looked the weakest? _____
4. How did the plants grown in darkness compare to the plants with light? _____



CONCLUSION

What did you learn about how light affects potato plant growth?



TIP: Keep everything the same for all three pots except the light condition. This makes your experiment a fair test!

You can dig up the potatoes at the end to see how they grew underground!

