

Comparing Light Bulbs



🔍 Question

Which bulb produces more heat?

☀️ Hypothesis

Read the procedure and make a prediction to answer the question.

📄 Materials

- Lamp
- Incandescent bulb
- LED bulb
- CFL bulb
- Thermometers

✓ Procedure

1. Put the incandescent bulb into the lamp and turn it on. Observe the amount of light and heat that the bulb produces. Be very careful not to touch the bulb; it can get very hot.
2. Turn off the lamp and let the bulb cool.
3. Take the incandescent bulb out of the lamp and put in the compact fluorescent bulb. Turn on the lamp. Observe the amount of light and heat the bulb produces.
4. Repeat for LED bulb.

*If you have three lamps, you can compare the bulbs at the same time.

✳️ Conclusion

1. Which bulb produced the most light? More heat?
2. Which bulb do you think is most energy efficient? Explain why you think this, using your observations above.

📖 Extension

1. Examine the packaging of different types of light bulbs with similar lumen output.
2. Considering the cost of the bulb, the amount of energy it uses, and the number of hours it will last, calculate which bulb is the best buy.

