



Observing the Growth Rates of Fish in Different Water Temperatures

Name: _____ Date: _____ Parent Initials: _____

QUESTION

How does water temperature affect the growth rate of fish?



HYPOTHESIS

If fish are kept in different water temperatures, then the fish in _____ (temperature) water will grow the _____ (faster/slower) because _____.

MATERIALS

- 3 small tanks or containers (at least 5 gallons each)
- 3 same-type fish (e.g., guppies or mollies)
- Aquarium thermometer (3 if possible)
- Aquarium heater
- Ice packs or cool packs
- Water conditioner/dechlorinator
- Fish food (same type and amount for all)
- Net
- Ruler or fish measuring board
- Notebook or data sheet (this lab sheet)

PROCEDURE

1. Set up three tanks with clean, dechlorinated water.
2. Set the water temperatures:
 - Tank A (Cold): 18–20 °C (64–68 °F)
 - Tank B (Room Temp): 24–26 °C (75–79 °F)
 - Tank C (Warm): 28–30 °C (82–86 °F)Use a heater for the warm tank and ice packs for the cold tank as needed. Keep temperatures as stable as possible.
3. Add one fish to each tank. Make sure all fish are the same type and are similar in size to start.
4. Feed each fish the same amount of food once per day.
5. Measure each fish's length (nose to base of tail) to the nearest millimeter at the start (Day 0) and then every 7 days for 4 weeks.
6. Record all measurements in the data table below.
7. After 4 weeks, compare the growth of the fish in each temperature and answer the questions.

CONTROLLED VARIABLES (Keep the same for all tanks)

- Type of fish
- Tank size
- Water source and conditioner
- Amount and type of food
- Light (keep near the same light)
- Frequency of feeding
- Measurement method

SAFETY & CARE

- Handle fish gently and keep hands wet.
- Do not overfeed.
- Check water quality regularly.
- If a fish appears sick or stressed, notify an adult.

DATA TABLE

Day (Week)	Tank A Cold (18–20 °C) Length (mm)	Tank B Room Temp (24–26 °C) Length (mm)	Tank C Warm (28–30 °C) Length (mm)	Notes/Observations (Behavior, appetite, activity, etc.)
0 (Start)				
7 (Week 1)				
14 (Week 2)				
21 (Week 3)				
28 (Week 4)				

ANALYSIS & QUESTIONS

1. Which fish grew the most over the 4 weeks? _____
2. Which fish grew the least? _____
3. How did temperature affect the growth rate of the fish in your experiment?

4. Why do you think temperature affected growth?

5. If you repeated this experiment, what would you do the same?

6. If you repeated this experiment, what would you change? _____

CONCLUSION

Write a conclusion using your results.
Start with: "In my experiment, I found that..."

 **TIP:** Healthy fish and consistent conditions help you get the most accurate results!