



Testing the Effectiveness of Sunscreens



QUESTION

How effective are different sunscreens at blocking UV radiation?

HYPOTHESIS

If a sunscreen has a higher SPF, then it will block more UV radiation.



MATERIALS

- UV Beads (color-changing)
- 4 small clear containers with lids
- Different sunscreens to test (label SPF)
- 1 container for control (no sunscreen)
- Plastic wrap or zip-top bags
- Sunny window or outdoor sunlight
- Timer or clock
- Paper and pen



PROCEDURE

1. Label your containers: Control (No Sunscreen) and each sunscreen with its SPF.
2. Add the same amount of UV beads to each container.
3. For each sunscreen container, apply the sunscreen to the beads.
4. Cover all containers with lids or plastic wrap.
5. Place all containers side by side in direct sunlight (or a sunny window).
6. Start the timer. Leave the containers in the sun for 15 minutes.
7. Observe and record the color of the beads in each container.
8. Compare the results.



RESULTS

Container	Sunscreen (SPF)	Bead Color After 15 Minutes (Original or Color-Changed?)
Control (No Sunscreen)		
Sunscreen 1		
Sunscreen 2		
Sunscreen 3		
Sunscreen 4		



ANALYSIS

1. Which sunscreen was the most effective? Why do you think so?

2. Which sunscreen was the least effective? Why do you think so?



CONCLUSION

Based on your results, what can you conclude about the effectiveness of sunscreens?



SAFETY FIRST!

Do not look directly at the sun. Wear sunglasses if outside. Wash hands after the experiment.