

STEAM Science Investigation
Can Shark-Inspired Design Improve a Door Handle?

Team Members: _____

1. Introduction

Explain the problem and how shark skin inspires our design.

- What is the problem?

- How does shark skin inspire our design?

2. Objective

Explain what you want to find out.

- Our aim is to:

3. Prediction

What do you think will happen? Why?

- We predict that:

- I think this will happen because:

4. Methodology

Explain how you will conduct a fair test.

Materials:

- _____
- _____
- _____
- _____
- _____

Procedure (steps):

1. _____
2. _____
3. _____
4. _____

5. _____

Variables:

- What we change (Independent variable):

- What we measure (Dependent variable):

- What we keep the same (Controlled variables):

5. Results

Record your data and calculate the percentage.

Surface | Total number of rice grains used | Number of grains on the handle | Percentage (%)

Smooth | | |

Patterned | | |

Calculate the percentage here:

[_____]

6. Analysis and Conclusion

Use your results to answer the questions.

A. What do the results tell us?

B. Did your results support your prediction? Why?

Final Conclusion

In one or two sentences, answer the investigation question.

Remember: Rice grains represent particles, not real bacteria. This experiment shows particle transfer only.