

CATAPULT ENGINEERING CHALLENGE

STUDENT ENGINEERING DATA SHEET

Name: _____
Team: _____

Date: _____
Grade: _____



KNT Catapult Kit
Hands-on components shown from the current lesson package.

Driving Question: Can we use engineering, data, and AI predictions to design a catapult that performs better?

1. Before We Build

What do you think will have the biggest effect on how far or accurately the catapult launches?

My prediction: _____

Why: _____

2. Baseline Tests - Do Not Redesign Yet

TRIAL	DISTANCE / TARGET RESULT	WHAT I OBSERVED	NOTES
1			
2			
3			

3. AI Recommendation + Team Decision

AI recommended testing: _____

AI predicted: _____

Our team: AGREES DISAGREES IS NOT SURE

Our reason: _____



STUDENT ENGINEERING DATA SHEET - CONTINUED

4. Redesign Decision

ONE variable we will change: _____

Our prediction after the change: _____

5. Redesign Tests

TRIAL	CHANGE MADE	DISTANCE / TARGET RESULT	WHAT I OBSERVED
4			
5			
6			

6. Analyze the Evidence

Best baseline result: _____ Best redesign result: _____

Did the redesign improve performance? YES NO MIXED RESULTS

What evidence supports your answer?

Grades 5-6 Extension

Average baseline distance: _____ Average redesign distance: _____

Optional percent improvement: _____

7. AI Verification

Was the AI recommendation/prediction supported by your results? YES NO PARTLY

Explain:

8. Exit Ticket

One thing our test taught us that we could not know just from an AI prediction was...

