

Paddlepop stick Catapults

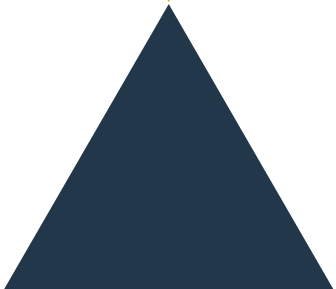

Hands-On Science 2024



ACKNOWLEDGEMENT OF COUNTRY

Science Teachers Association of NSW would like to acknowledge the Traditional Custodians of the various lands on which we work today and the Aboriginal and Torres Strait Islander people participating in this event.

I pay my respects to Elders past, present and emerging, and recognise and celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.



Our Sponsors

This conference wouldn't be possible without the support of our 2024 sponsors.

GOLD



SILVER



BRONZE



Introduction

Heather Bunting
Years 3-6 Science Specialist
Shore Preparatory School
North Sydney



In medieval battles, catapults (trebuchets) were used in battle to launch large rocks at castle walls.



Petraria Arcatinus replica

- A large rock would be placed in the spoon-shaped bucket at the end of the arm, with the rope wound down around an axle.
- This put both the rope and wooden structure under tension.
- As the arm was released, the arm shot upwards, launching the rock into the air as it was stopped by the cross bar.



Catapult Construction

Step 1: Stack 6 paddlepop sticks on top of each other.

Step 2: Wrap a rubberband tightly around one end of the main stack.

Step 3: Insert a 7th stick between the two bottom sticks, at right angles.

Step 4: Insert an 8th stick between the two top sticks at a right angle. Wrap a rubberband around the other end of the main stack.

Step 5: Fasten the 7th and 8th sticks together with a rubberband at one end only.

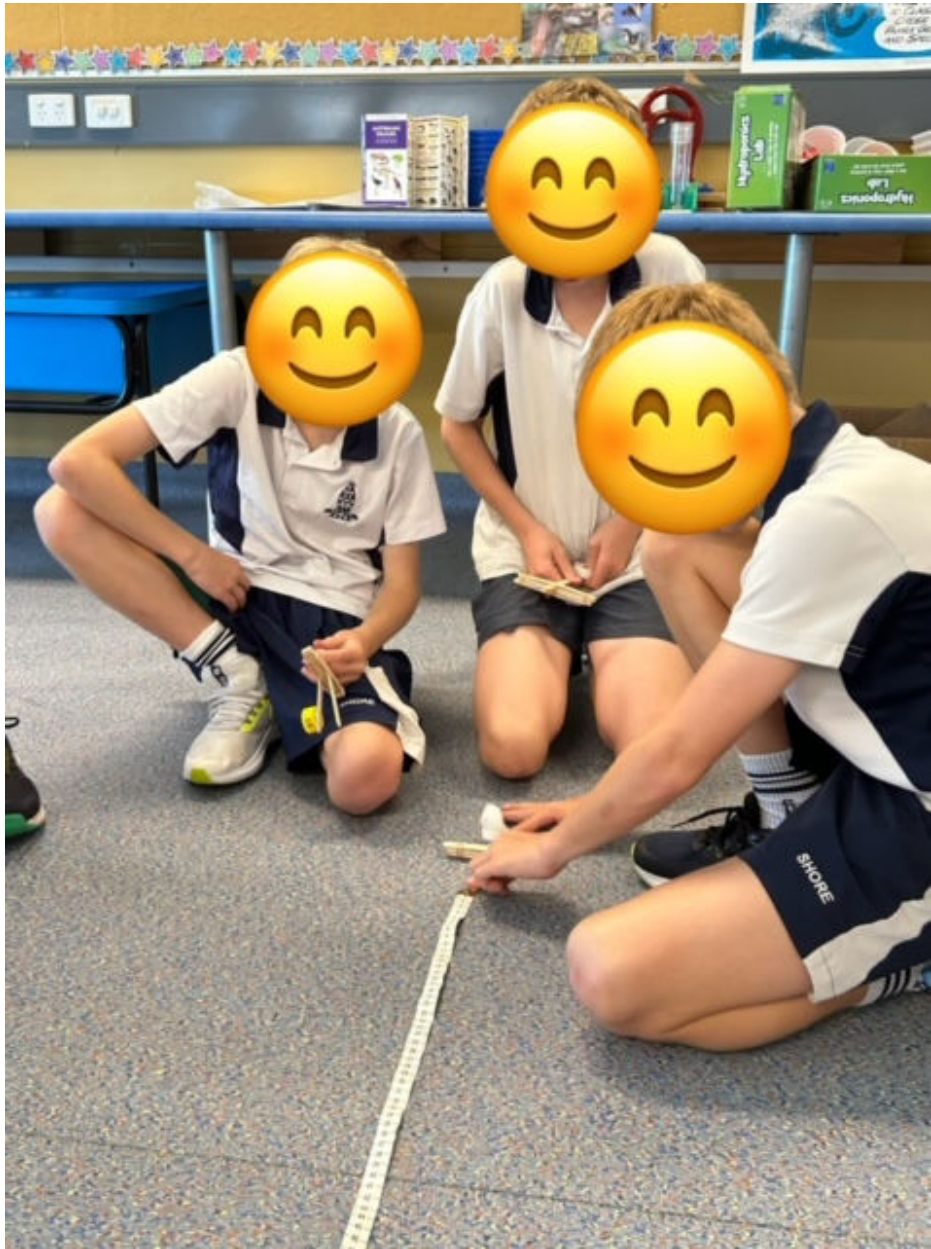
Step 6: Secure the lid near the end of the top stick with Blu-Tak. Leave a small end of the stick showing.

Step 7: Place a load on the lid. Press down near the lid, pressing the other end steady and launch!



Testing + Variables

Projectile:	
Test	Distance:
1	
2	
3	
Average	



Thank You

STAN SW

SCIENCE TEACHERS
ASSOCIATION OF
NEW SOUTH WALES