## STANDARD DEVIATION INVESTIGATION POPPERANG



You are to explore the relationships, if any, between heights and arm lengths of students and the distances that popperangs can be thrown. Your data analysis will include mean and standard deviation calculations.

To make your popperang, glue or tape 2 paddle pop sticks together.


Q1. Complete the table on the next page for each student. Calculate the mean and the standard deviation (sample) using a scientific calculator.

Q2. Reflect on your design, your throwing technique, your throwing angle, your physical characteristics and any other relevant factors that could improve your performance.
Explain 3 ways that a longer throwing distance could be achieved.


| STUDENT NAME | STUDENT HEIGHT (to nearest cm) | STUDENT ARM LENGTH (to nearest cm) | DISTANCE OF BEST THROW (to nearest metre) |
| :---: | :---: | :---: | :---: |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |
| 6 |  |  |  |
| 7 |  |  |  |
| 8 |  |  |  |
| 9 |  |  |  |
| 10 |  |  |  |
| 11 |  |  |  |
| 12 |  |  |  |
| 13 |  |  |  |
| 14 |  |  |  |
| 15 |  |  |  |
| MEAN |  |  |  |
| STANDARD DEVIATION |  |  |  |

