An experiment which initially uses two dice. The activity may grow from there.

Throw two dice and find the sum of the two numbers.

Use this grid (which becomes a bar chart) to shade in one section for each time you score.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 |  |  |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |
|  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

* Which number will reach the top first?
* Will this always happen?
* Why is 1 not on the grid?
* Draw out the possibility space, and calculate the probabilities of each number being thrown.
* Does the experiment match the theory? You might want to draw up a table:

|  |  |  |
| --- | --- | --- |
| **Result** | **Theory** | **Experiment** |
| 2 | 1/36 | 2/50 |
| 3 |  |  |
| 4 |  |  |
|  |  |  |

Hint: you could help comparison by converting the figures to decimals

Explore further. You could try:

* Multiplying the dice
* Using three or four dice
* Subtracting the dice scores