# PROBABILITY

*By applying my understanding of probability, I can determine how many times I expect an event to occur, and use this information to make predictions, risk assessment, informed choices and decisions.*

## Pupils should be able to:

- Locate given fractions on a number line between 0 and 1.
- Use appropriate words (likely, highly unlikely, …) to describe the probability of an outcome
- List possible outcomes of simple random events
- Know that probability is a measure of chance between 0 and 1;
  probability of an impossible event is 0, of a certain event is 1.

- Determine probability in simple cases using the standard definition, where the outcomes are equally likely.

PUPILS SHOULD COMPLETE THE FOLLOWING EXERCISE AND ASSESS THEIR PROGRESS BY TICKING ONE OF THE OPTIONS FOR EACH TOPIC IN THE TABLE BELOW

|  | DEVELOPING | CONSOLIDATING | SECURE |
|---|---|---|---|
| Using fractions (QUESTION 1) |  |  |  |
| Listing Outcomes (QUESTIONS 2) |  |  |  |
| Calculating probability and relative frequency (QUESTION 3 |  |  |  |

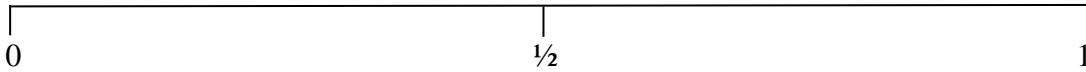mymaths lessons:  library/data/probability/ probability intro
/simple probability
/listing outcomes
/relative frequency
/probability revision

1.  On the probability line below, approximately place the following numbers:
    ¼, ¾, 20%, 0.7, ⅓, 0.9999

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|_____|_____|
0                               ½                                1
```

2.  Complete the table below to show all possible totals when rolling 2 dice

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | | 4 | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |

Use the table to write down the probability of getting a total score of 8.

3.  In recent survey 2000 people were asked whether they supported Scottish Independence 640 said Yes, 1060 people said No and 300 said Don't Know.
    a)  What is the probability that a person chosen at random in the survey said No.
    b)  If this result was accurate and repeated in a National Referendum on Independence in 2014 and 3 million people voted.
        How many people would vote Yes.