

## Mount Litera Zee School, Roorkee

### Grade – 7 ( Mathematics)

DATE: 22/07/2021

#### Chance and Probability

**Probability** is the **measure** or the **chance of occurrence** of a particular event. Experiments which do not have a **fixed result** are known as **random experiments**.

**Number of outcomes or Sample Space** The set of **all the possible outcomes** to occur in any experiment is known as **sample space**.

**Examples:** Experiment : Tossing a coin, Sample Space (S) = {H,T}

Experiment : Rolling a die, Sample Space (S) = {1,2,3,4,5,6}

**Favourable outcome** – It is one of the possible result(s) of an experiment.

**Examples :** In an experiment of Tossing a coin, getting a head. Favourable outcome = {H} In an experiment of Rolling a die, getting an even number Favourable outcomes = {2,4,6}

Probability of occurrence of any event,

$$P(E) = \frac{\text{Number of favourable outcomes}}{\text{Total Number of Outcomes}}$$

Example: Find the probability of getting an even number when a die is rolled. Sample Space (S) = {1,2,3,4,5,6} , Favourable outcomes = {2,4,6}

$$P(E) = \frac{\text{Number of favourable outcomes}}{\text{Total Number of Outcomes}} = \frac{3}{6} = \frac{1}{2}$$