SCIENTIA
TUTORIALS

SUMMARY

❖ Freely falling object: Is the object which moves towards the Earth due to force of gravity

❖ Acceleration due to gravity: It is the acceleration produced in an object due to force of gravity

❖ Equations of motion for a freely falling object are:

    ■   ● Atomic mass unit is equal to $\frac{1}{12}$ the mass of an atom of C - 12

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❖ Equations of motion for an object moving against gravity are:

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❖ Acceleration due to gravity varies from place to place

Gravitation

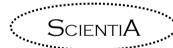❖ Acceleration due to gravity is zero at the centre of the Earth

❖ Acceleration due to gravity is independent of the mass of the object

❖ Newton's third law of motion is applicable to force of gravitation

❖ Mass is defined as the amount of matter contained in it

❖ SI unit of mass is Kilogram

❖ Mass remains constant throughout the universe

❖ Mass of an object can never be equal to zero

❖ Mass is a scalar quantity

❖ Weight is the force with which an object is pulled towards the centre of the Earth

❖ SI unit of weight is Newton

❖ W= mg   Scientia

❖ Weight is a Vector quantity

❖ Weight of an object can be equal to zero i.e., when g is equal to zero

❖ Weight varies from place to place

❖ 1kg.Wt = 9.8 N

❖ Projectile is an object thrown into space horizontally under the action of Earth's gravity

❖ Trajectory is the path followed by a projectile

- Atomic mass unit is equal to $\frac{1}{12}$ the mass of an atom of C - 12