Mechanics 3

Pearson Edexcel · International A-Level · Further Mathematics · Vocabulary in context

Word	Example
period /ˈpɪərɪəd/	The **period** of the wave is 0.02 s. $0.02\ \text{s}$
Hooke's law /hʊks lɔː/	**Hooke's law** says the extension is proportional to the force.
natural length /ˈnætʃərəl leŋθ/	The **natural length** of a spring is its length when it is not stretched.
modulus of elasticity /ˈmɒdjʊləs ɒv ɪlæˈstɪsɪti/	The **modulus of elasticity** tells you how stiff a string is.
elastic energy /ɪˈlæstɪk ˈenədʒi/	A stretched spring stores **elastic energy**.
work-energy principle /wɜːk ˈenədʒi ˈprɪnsɪpl/	The **work-energy principle** says work done equals the change in kinetic energy.
simple harmonic motion /ˈsɪmpl hɑːˈmɒnɪk ˈməʊʃn/	A mass on a spring moves with **simple harmonic motion**.
amplitude /ˈæmplɪtjuːd/	Loud sounds have a large **amplitude**.
angular speed /ˈæŋgjʊlə spiːd/	The wheel turns with an **angular speed** of 2 radians per second. 2
centripetal acceleration /senˈtrɪpɪtl əkˌseləˈreɪʃn/	A car turning a corner has a **centripetal acceleration**.
conical pendulum /ˈkɒnɪkl ˈpendjʊləm/	A ball on a string swinging in a circle is a **conical pendulum**.

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vertical circle /ˈvɜːtɪkl ˈsɜːkl/	A ball on a string moves in a **vertical circle**.
solid of revolution /ˈsɒlɪd ɒv ˌrevəˈluːʃn/	Turn a region around a line to make a **solid of revolution**.
centre of mass /ˈsentə ɒv mæs/	The **centre of mass** of a ruler is in its middle.
hemisphere /ˈhemɪsfɪə/	A **hemisphere** is half of a sphere.
composite body /ˈkɒmpəzɪt ˈbɒdi/	A **composite body** is made of two or more simple shapes.
equilibrium /ˌiːkwɪˈlɪbrɪəm/	The book is in **equilibrium** because the forces balance.