Knowledge Organiser: Physics, CP7-8

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Jesus grew in wisdom and stature" Luke 2:52

1	Whenever anything happens energy is transferred.
2	The energy transferred by a force is called work done.
3	Work done (J) = force (N) x distance moved in the direction of the force (m). $E = F \times d$
4	Power is the rate at which energy is transferred
5	Power is measured in watts (W)
6	Power (W) = work done (J) ÷ time taken (s) P = E ÷ t
7	Contact forces occur when two objects are touching.
8	Examples of contact forces include tension and air resistance
9	Non-contact forces occur without objects touching, they can act between two objects that are far apart from one another.
10	Examples of non-contact forces include gravity and magnetism
11	For non-contact forces, the force becomes weaker the further the objects are from each other.
12	Vector diagrams can be used to find the resultant force of two forces acting on an object at an angle to each other. (higher tier only)
13	Vector diagrams can also be used to find the two component forces acting on ar object when you know the resultant force.
14	A turning force is called a moment
15	The size of a moment depends on the size of the force applied and how far from the pivot the force is applied.
16	The pivot is the point where the rotation (turning) takes place.
17	Moment of a force (Nm) = force (N) x distance (m)
18	When a system involving rotational forces is in equilibrium the sum of clockwise moments = the sum of anticlockwise moments
19	The rotational effect of a fore can also be transmitted by gears







