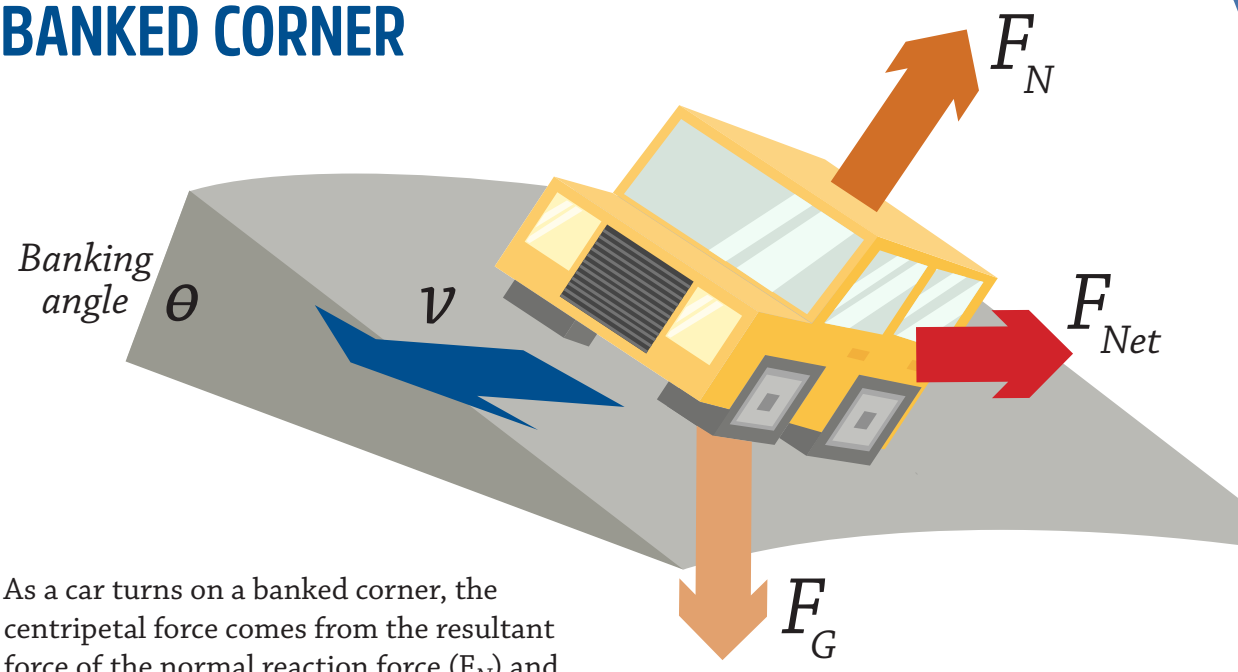


Physics

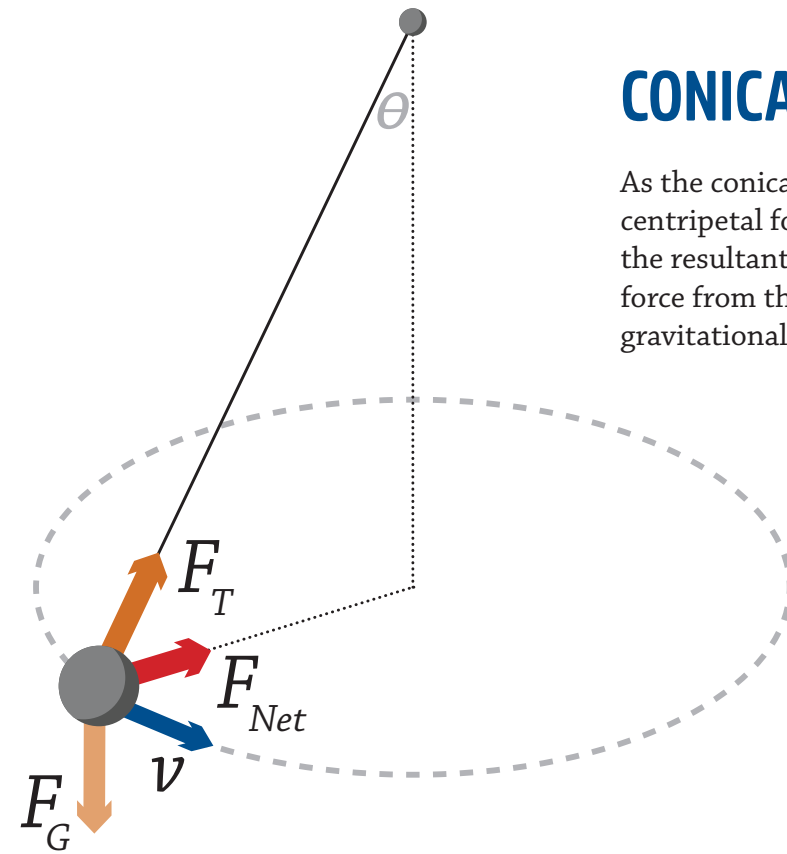
Circular Motion

BANKED CORNER

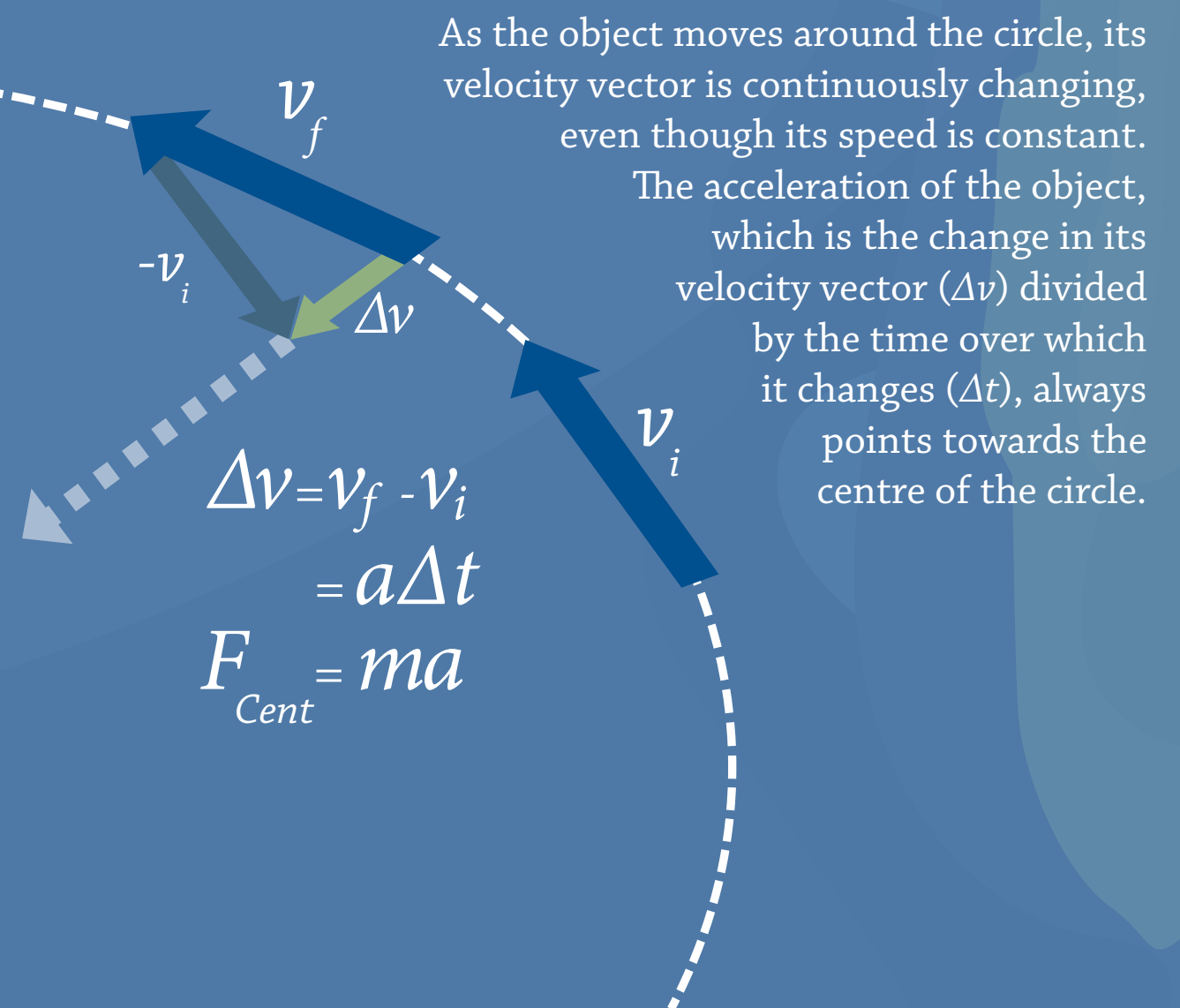
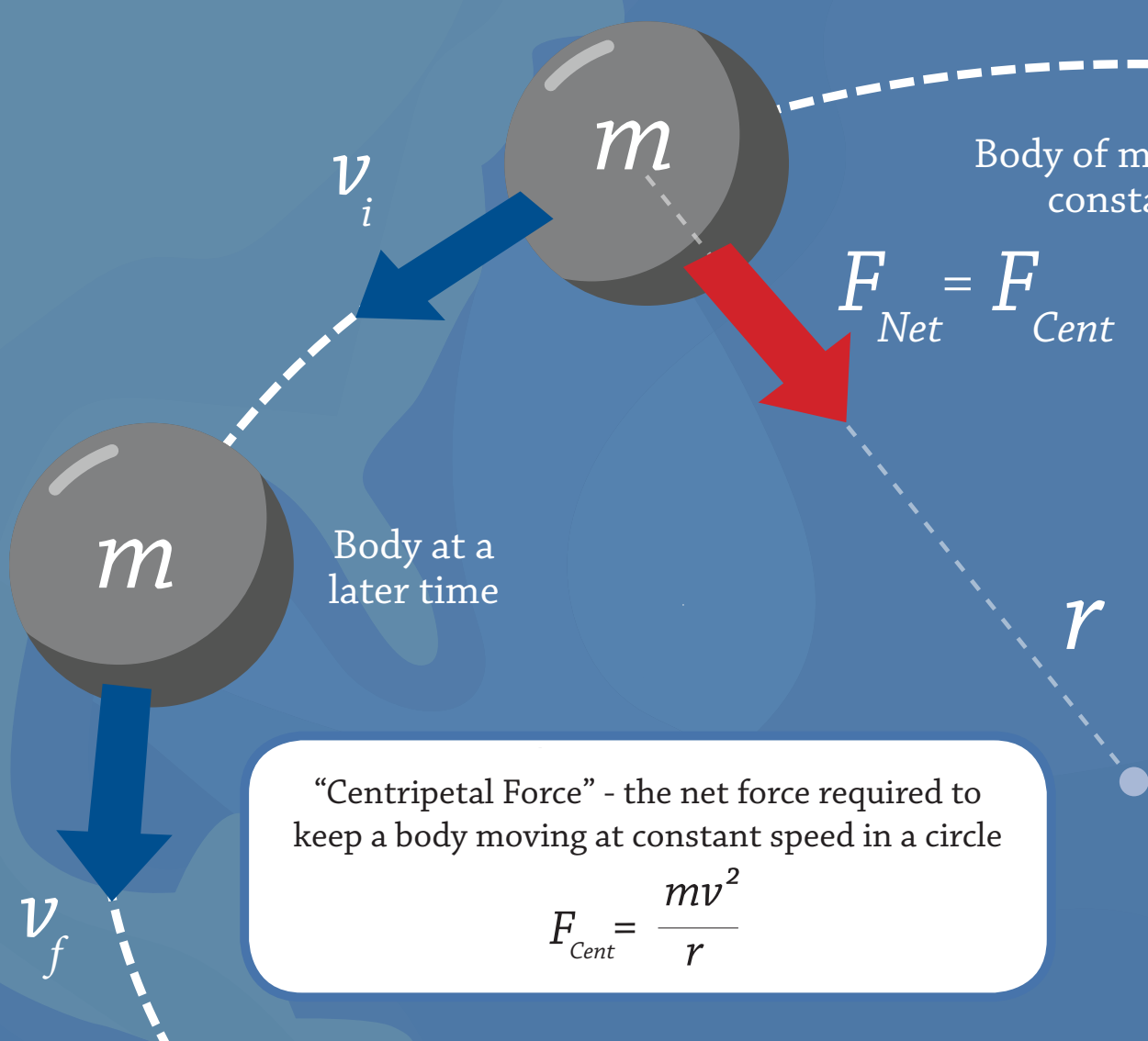


As a car turns on a banked corner, the centripetal force comes from the resultant force of the normal reaction force (F_N) and the gravitational force (F_G).

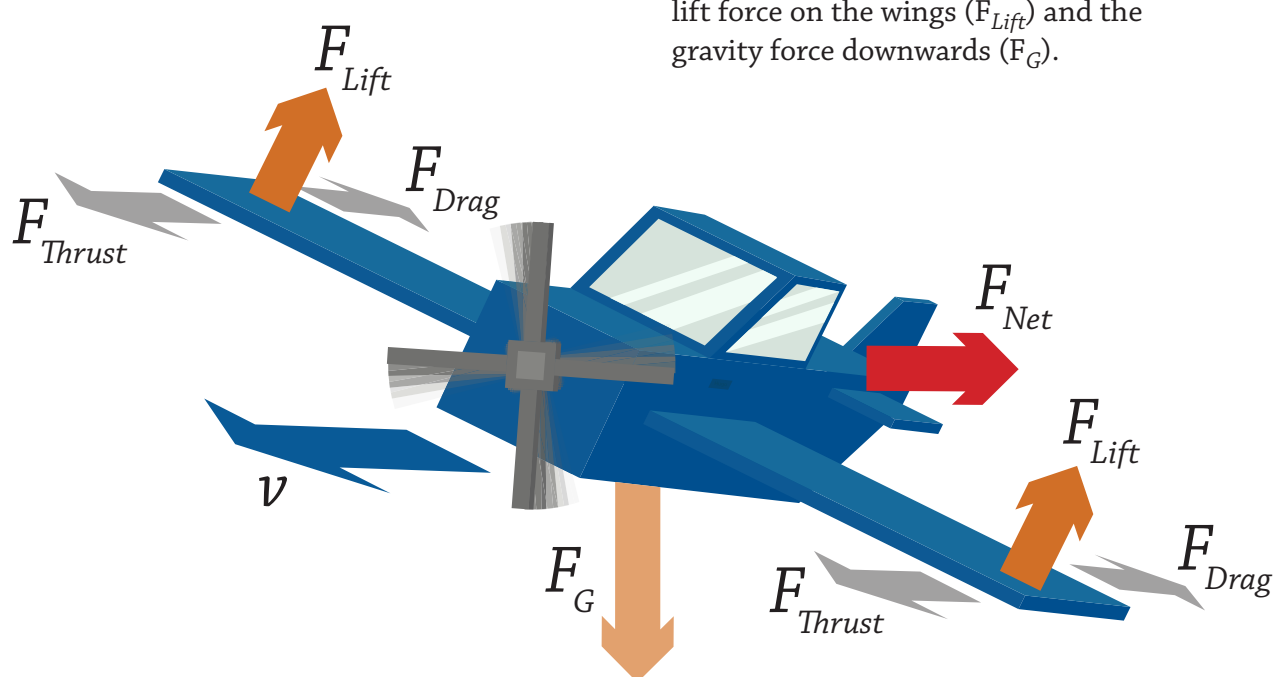
CONICAL PENDULUM



As the conical pendulum spins, the centripetal force inwards comes from the resultant force of the tension force from the string (F_T) and the gravitational force on the weight (F_G).



TURNING PLANE



As a plane banks to turn, the centripetal force is due to the resultant force of the lift force on the wings (F_{Lift}) and the gravity force downwards (F_G).

PLANETARY MOTION



In planetary motion with two bodies, the only force is the gravitational force (F_G) between the two objects. Because there is no friction in space, the moon keeps undergoing circular motion at a constant speed.

Only gravitational force so:

$$F_{Net} = F_G \quad F_G = \frac{G m_{Moon} m_{Earth}}{r^2}$$

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