

**ACROSS**

1. "center fleeing" ... an effect caused by rotation and inertia.
4. \_\_\_\_\_ equilibrium; any displacement lowers CG and displacement continues.
8. \_\_\_\_\_ speed; also know as angular speed; number of rotations/rev per unit of time.
11. The tendency of a force to cause rotation about an axis; =  $F \times \text{leverarm}$
12. \_\_\_\_\_ equilibrium; displacement neither lowers nor raises the CG.
13. \_\_\_\_\_ circular motion...motion in a circular path at constant speed.
14. Number of cycles per second.
18. Movement about an internal axis.
19. Frequency is the \_\_\_\_\_ of period;  $f = 1/T$  or  $T = 1/f$
21. The tendency of a moving body to follow a straight-line path.
24. Movement about an external axis.

**DOWN**

1. "center seeking"
2. Center of \_\_\_\_\_ ...the point where the force of gravity can be considered to act
3. If the CG is above the area of \_\_\_\_\_, the object will remain upright.
5. \_\_\_\_\_ equilibrium; any displacement raises CG and displacement stops and "returns".
6. The perpendicular distance from the axis of rotation to the line along which the force acts.
7. Centripetal \_\_\_\_\_; causes an object to follow a circular path.
9. Centripetal \_\_\_\_\_; =  $v^2/r$ ; directed toward the center of circular motion.
10. \_\_\_\_\_ speed; also know as tangential speed; =  $2 \pi r / T$
15. Rotational \_\_\_\_\_; CCW torque = CW torque
16. Unit for frequency (cycles per second)
17. \_\_\_\_\_ equilibrium or balanced torques
20. Always tries to keep his CG over his feet.
22. Unit of torque.
23. The time for one cycle (T).