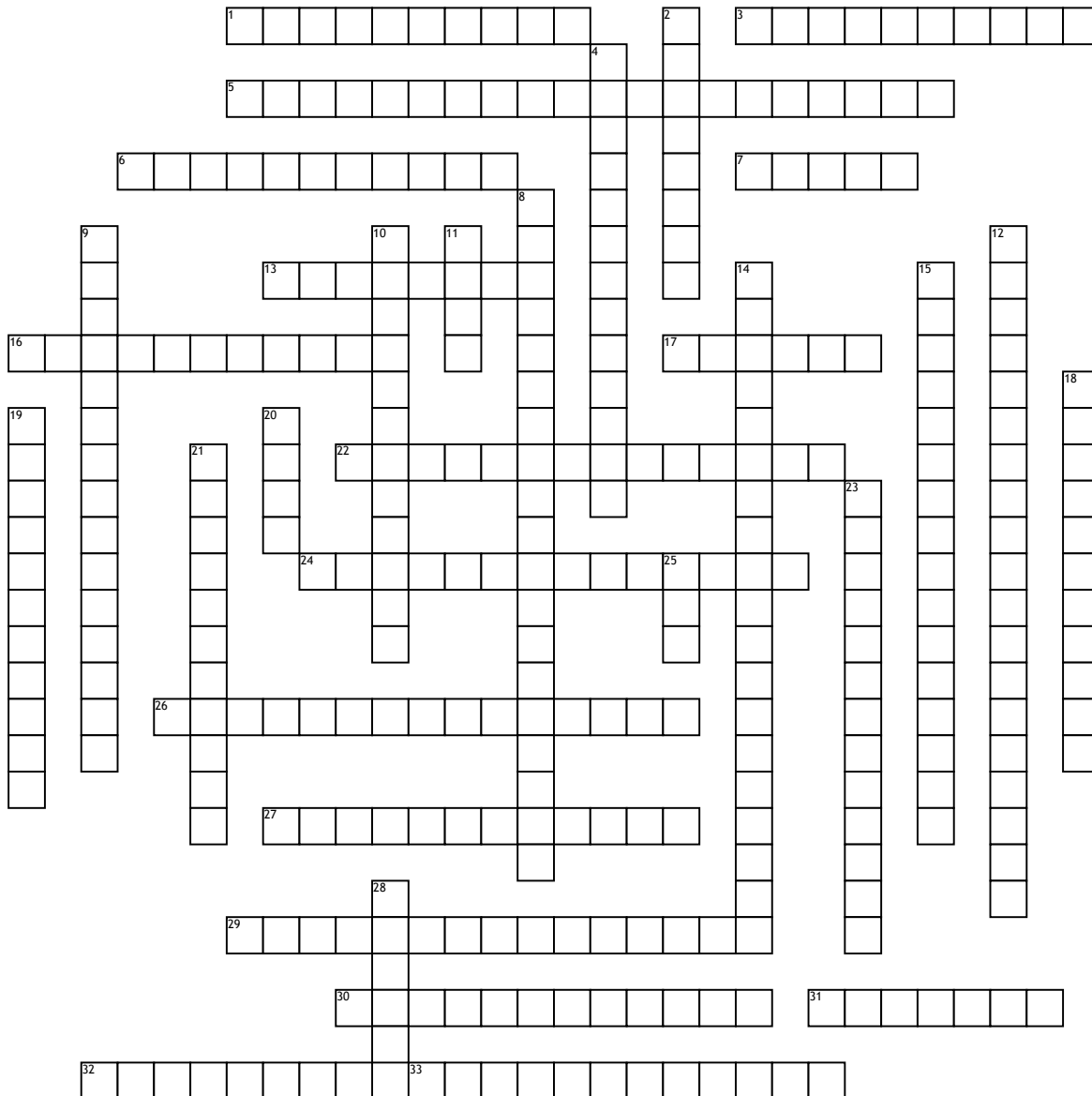


Biomechanics



Across

1. pressure equation
3. how many degrees in 1 revolution
5. Energy cannot be created or destroyed. It may be transformed from one form to another, but the total amount of energy never changes
6. 2 parts of fluid resistance
7. density units
13. when you are partially submerged, you build up a small wave in front of you which holds you back
16. 1kg/l or 1000kg/m³
17. rotational analog of force
22. 2 types of fluids
24. runs from side to side across body
26. $p = m/v$
27. Magnus effect same direction as wind
29. A push through the centre of mass

30. reduce the cross sectional area in front of you, reduce air hitting object and reduce vacuum behind you
31. the objects mass relative to the volume it takes up.
32. How does a golf ball get extra airtime over a normal projectile?
33. Brings together Bernoulli's principle and the concept of boundary layers. Deviation in the trajectory of a spinning object toward the direction of the spin.

Down

2. the upward force exerted on a body by a fluid that it is surrounded by
4. The force opposing motion is felt at right angles to the body
8. how quickly you speed up or slow down
9. the point of a body that gravity acts through

10. the point at about which all mass is equally balanced
11. one part directly opposing motion
12. if a body does float, the amount of water it displaces is equal in mass to that of the floating body
14. As the velocity of a fluid increases, the pressure exerted by the fluid decreases and rise versa
15. vertical axis (through head)
18. Boundary layer air clashes with oncoming wind
19. Slows you down, more energy exerted
20. one part at right angle to the motion
21. propels you up or side ways
23. A thin layer of air very near the surface of an object.
25. Around 1.3kg/m³
28. a rigid bar that moves around a fixed point