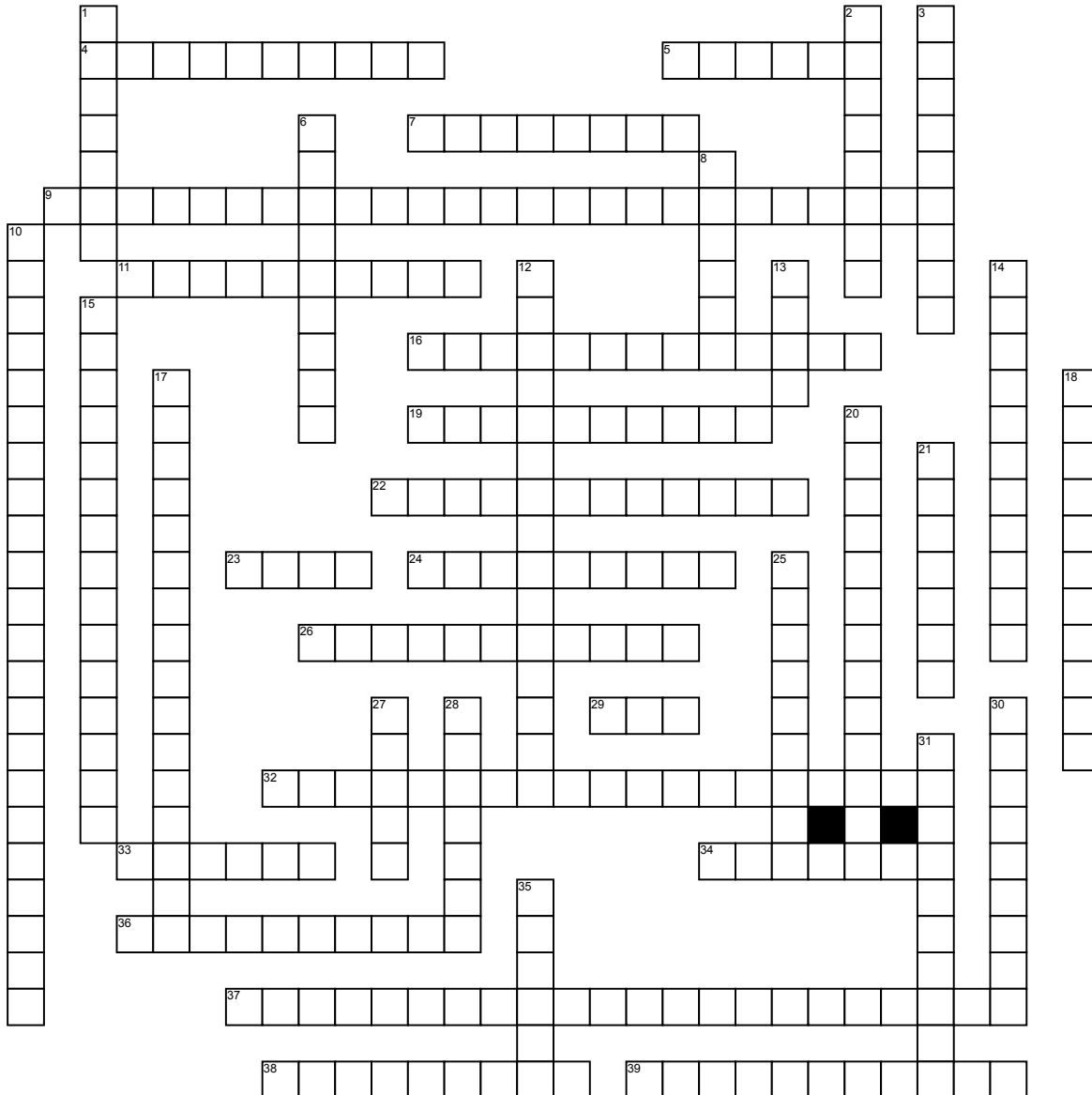# Engineering revision

Across

4. doesn't have delocalised electrons to conduct heat or electricity

5. elongation/original length

7. all thermosetting materials end in this suffix

9. maximum stress before deforming

11. hot liquids and gases rise while colder ones fall

16. a heat treatment that adds a protective layer around the material

19. analogue signals are what type of wave

22. a smart material that changes colour in responce to light

23. the units of resistance

24. distributes electrical charge through two terminals

26. force= ? + current + length of wire

29. glass-reinforces plastic

32. ability to conduct heat

33. 1 or 0 in a digital signal

34. the type of flow for liquids and air

36. the ability for a material to return back to its original shape after being distorted

37. ability to conduct electricity

38. behaves like light rays/waves

39. the electrons in metals are what to allow them to conduct heat and electricity

Down

1. signal that can be replicated perfectly

2. number of values in a analogue signal

3. a lightweight material that forms a layer when reacted with oxygen

6. rapid cooling in water, brine or oil

8. an alloy of the materials Cu and Sn

10. energy stored in raised objects

12. what type of system to do with magnets its only active when electricity is passed through

13. something wrapped around a core, more increases strength

14. lightweight composite material

15. highest and lowest voltage on a graph

17. stored energy streched

18. reaction with oxygen or water

20. a hardening process that requires aging to increase strength

21. the units for pressure

25. one property of ferrous materials that non ferrous materials don't have

27. an alternative name for the ceramic 'borosilicate glass'

28. 9.81

30. annealing increases

31. a system that used water

35. a system that stores power when powered