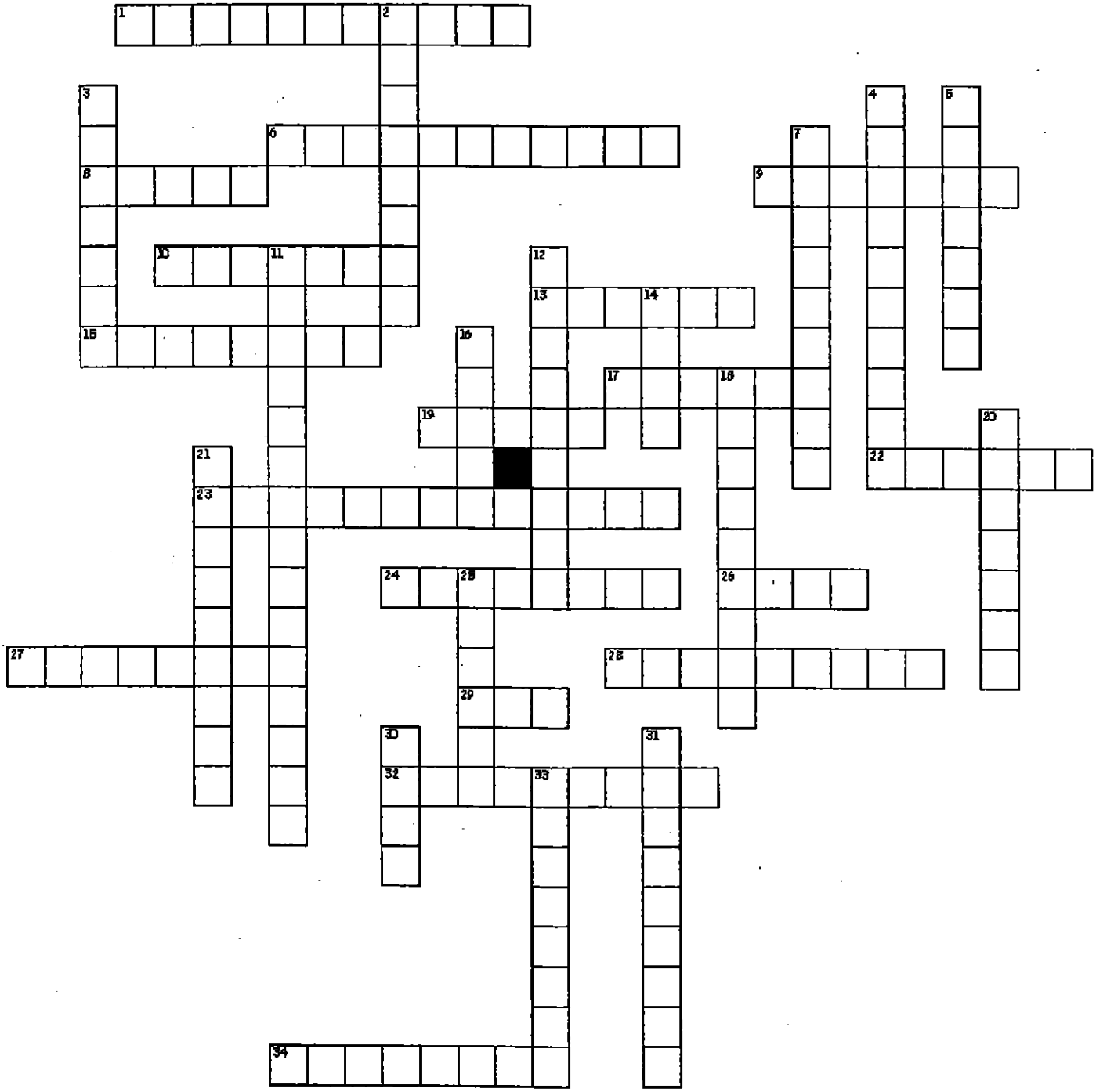
5a

Chemistry **Electrons in Atoms** **Mr. Thaler**
(Clues on reverse)



Chemistry **Electrons in Atoms** **Mr. Thaler** 5b

Across

1. Heisenberg's principle
6. wave equation solved to arrive at orbital shapes
8. fuzzy orbital
9. 3D region of space where likelihood of locating an electron is ninety percent
10. outermost electron shell
13. building up
15. shape of *p* orbital
17. emitted when an electron "falls"
19. high-energy electromagnetism
22. stable state
23. _____ effect
24. speed of light
26. one electron added to each orbital in a sublevel
27. _____ spectra
28. examples are 1*s*, 2*p*, 3*d*, and 4*f*
29. Roy G.
32. model of atom representing electrons as traveling in well defined paths
34. 1/2000 mass of proton

Down

2. heat
3. unstable state
4. Werner _____
5. orbital _____
7. inversely proportional to wavelength
11. _____ spectrum
12. unit for measuring visible light
14. ____ model
16. _____ test
18. frequency of light that will cause electrons to be ejected from metal surface
20. "packet" of energy
21. shape of *s* orbital
25. wavelength
30. opposite or parallel
31. _____ energy level
33. described photoelectric effect