

CH 223 Spring 2024:

“Special Lab”:

Instructions

Note: **This is the lab is for section W1 of CH 223 only.**

- If you are taking section 01 or H1 of CH 223, please use this link:
<http://mhchem.org/q/9a.htm>
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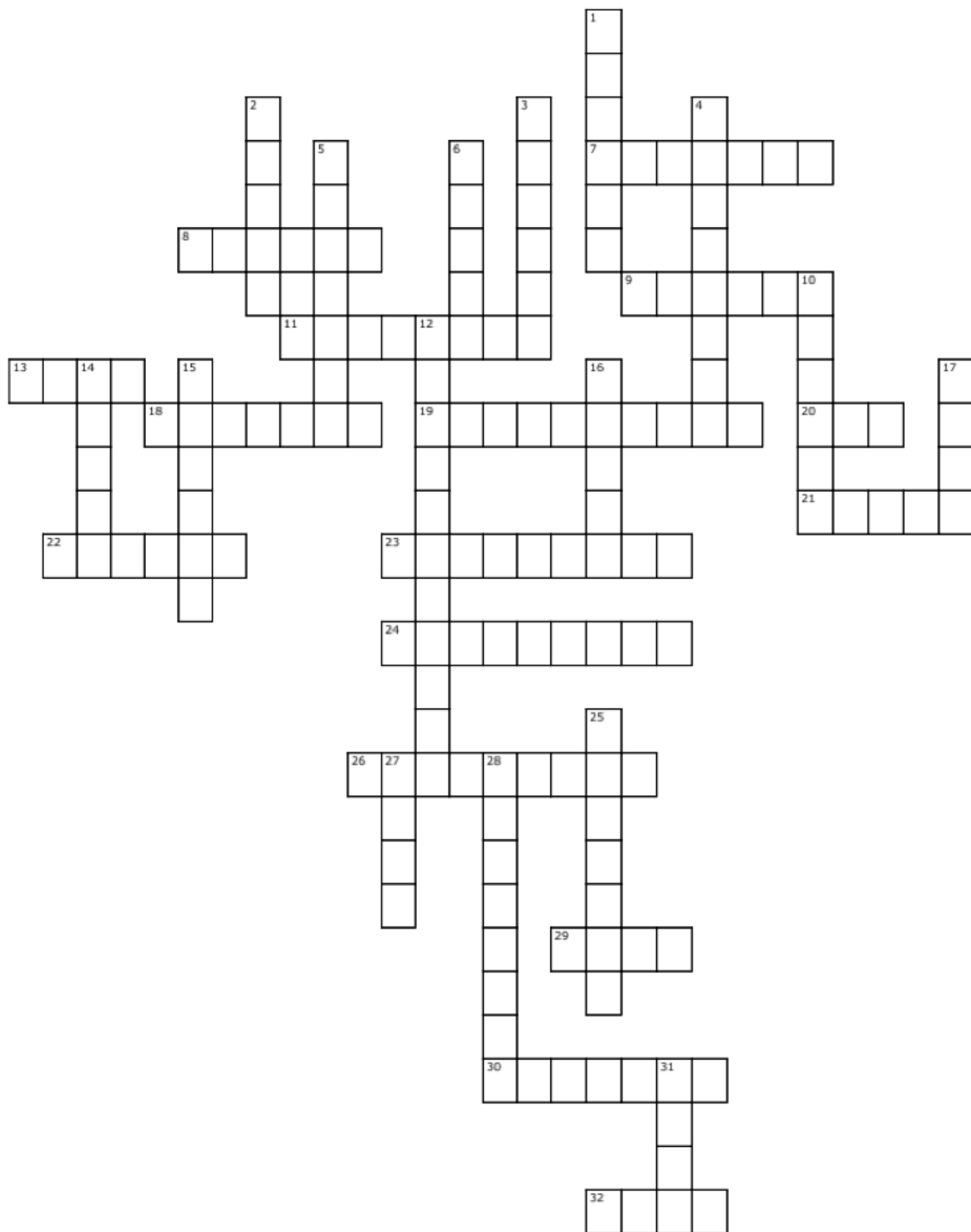
Step One:

There is no lab video for this lab. :)

Step Two:

Submit your lab (pages Ib-9-2 through Ib-9-5 *only* to avoid a point penalty) **as a *single* PDF file to the instructor via email (mike.russell@mhcc.edu) on Wednesday, June 5 by 11:59 PM.** I recommend a free program (ex: CamScanner, <https://camscanner.com>) or a website (ex: CombinePDF, <https://combinepdf.com>) to convert your work to a PDF file.

If you have any questions regarding this assignment, please email (mike.russell@mhcc.edu) the instructor! Good luck on this assignment!



The Crossword Puzzle Hints:

Across

- 7. Protons and neutrons in the atom
- 8. Positive subatomic particle
- 9. Paper used to measure pH
- 11. Solute plus solvent equals a _____
- 13. Produces OH⁻ ions in solution
- 18. Eye protection
- 19. A test in the laboratory
- 20. An atom or molecule with an electric charge
- 21. Metric prefix 10⁻⁶
- 22. Cylindrical glass container
- 23. K
- 24. Heavy hydrogen
- 26. Measures the pressure
- 29. 6.022×10^{23}
- 30. A substance which cannot be broken down by chemical means
- 32. A nucleus orbited by electrons

Down

- 1. Bunsen _____
- 2. Negatively charged particle
- 3. Positively charged particle
- 4. Negative subatomic particle
- 5. Same element but different number of neutrons
- 6. Metric prefix 10⁻²
- 10. Na
- 12. Might be calibrated in Fahrenheit or Celsius
- 14. Used to measure mass
- 15. Cu
- 16. Metric prefix 10⁻³
- 17. Metric prefix 10³
- 25. Neutral subatomic particle
- 27. Produces H⁺ ions in solution
- 28. Combination of two or more atoms
- 31. Metric prefix 10⁻⁹



Find the 40 Most Common Elements In the Earth's Crust



The words can be vertically, horizontally or diagonally placed. They can be backwards or forwards. Good luck!



ALUMINUM
BARIUM
CALCIUM
CARBON
CERIUM
CHLORINE
CHROMIUM
COBALT
COPPER
FLUORINE

GALLIUM
HYDROGEN
IRON
LANTHANUM
LEAD
LITHIUM
MAGNESIUM
MANGANESE
NEODYMIUM
NICKEL

NIOBIUM
NITROGEN
OXYGEN
PHOSPHORUS
POTASSIUM
PRASEODYMIUM
RUBIDIUM
SAMARIUM
SCANDIUM
SILICON

SODIUM
STRONTIUM
SULFUR
THORIUM
TITANIUM
TUNGSTEN
VANADIUM
YTTRIUM
ZINC
ZIRCONIUM

Poetry:

Find a poem about chemistry on the internet, or better yet, make one of your own! Include the poem here, on this page. If you find a poem from the internet, please list the source (URL).

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