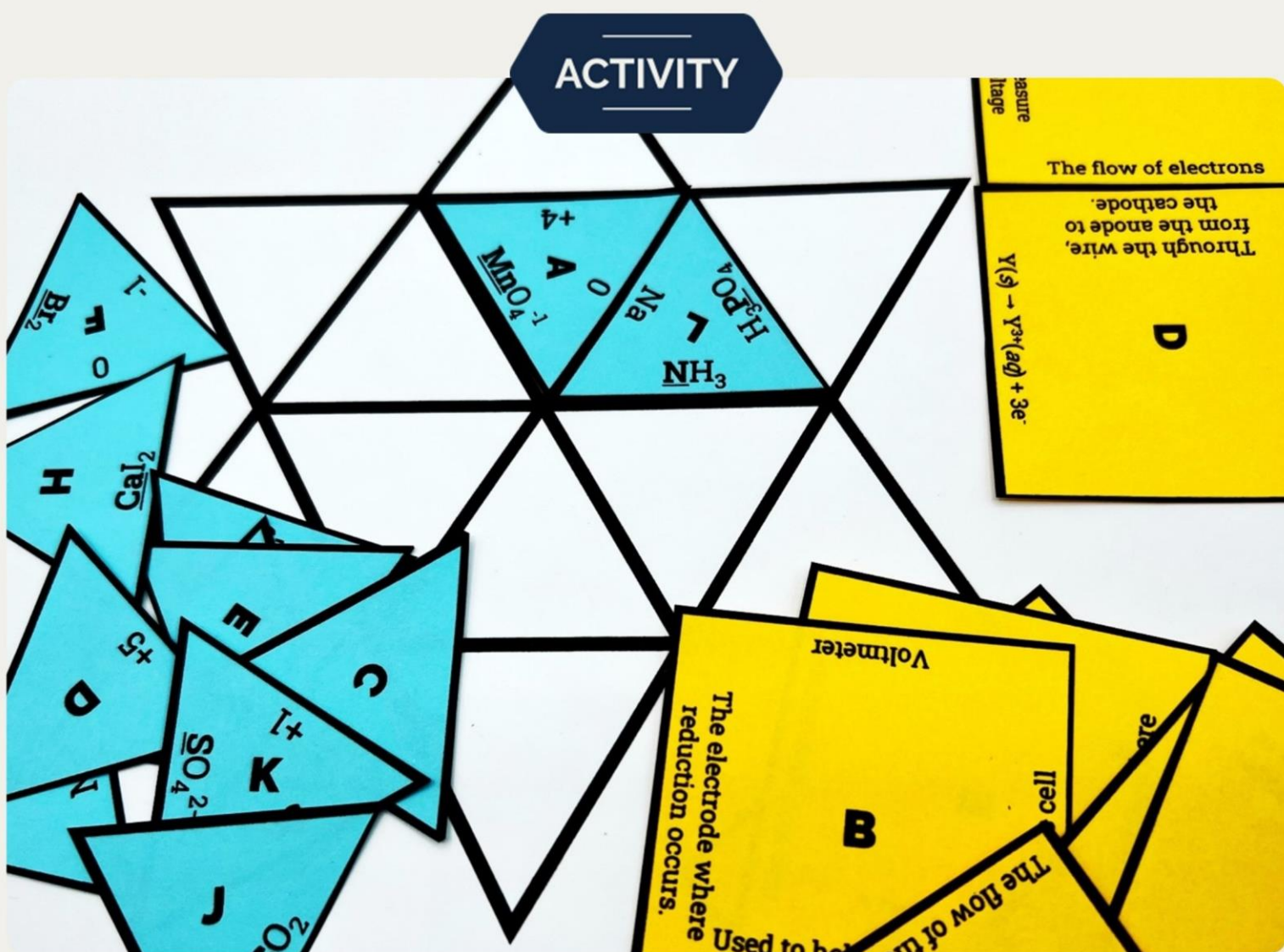


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Oxidation Numbers and Galvanic Cell Puzzles

Print and Digital

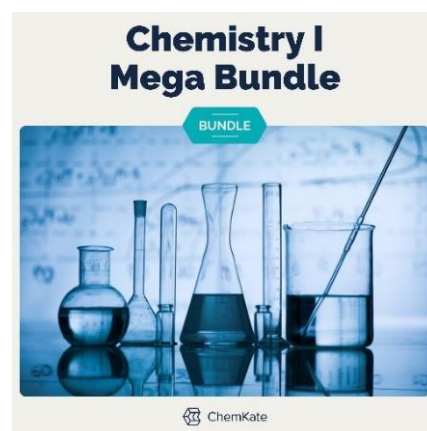
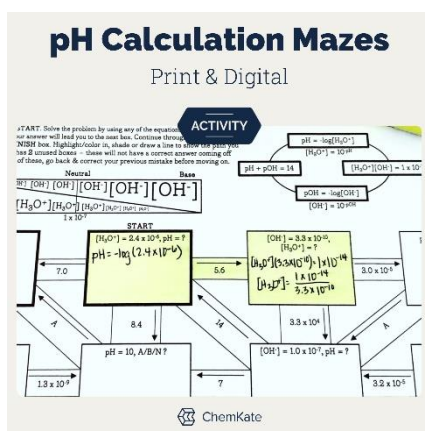
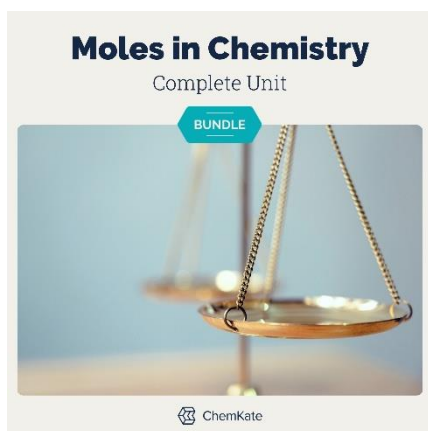
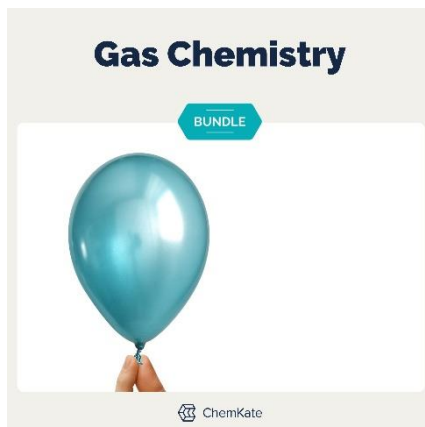
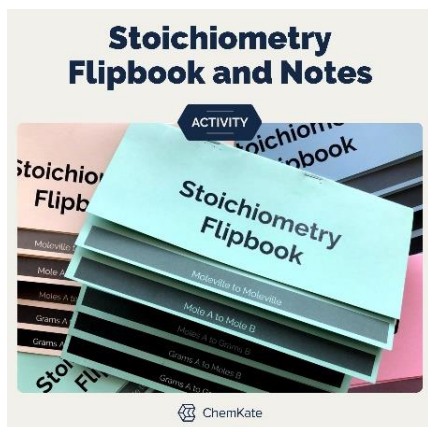


 ChemKate

I'd love your feedback!

Oxidation Number and Galvanic Cell Parts Tarsia Puzzles

Thank you for your download! You might also be interested in the [linked](#) images below:



Looking for an easy, quick review of oxidation numbers and reviewing the parts and functions of a galvanic cell your redox reactions study? In low-prep print and no-prep digital, tarsia puzzles offer a great way to practice oxidation numbers and galvanic cells in a new way. Both puzzles can be used as bellringer/bellwork, a break in notes, at stations, a homework assignment, exit activity or for early finishers.

◆ This is available in my costs-savings [Redox Reactions Bundle](#) - and save *time and assurance* with all the activities such as interactive particle diagrams, labs, and *self-grading* homework found in this [Chemistry I Activity Mega Bundle](#) ◆

Included in these files, print and digital:



- Oxidation Number Tarsia Puzzle with optional Student Template. Topics include oxidation numbers -3 to +7.
- Galvanic Cell Tarsia Puzzle with optional Student Template. Topics include anode, cathode, salt bridge, flow of e^- , flow of spectator ions in salt bridge, how concentrations change over time.
- Answer Keys

Accessing the Digital Activities

1. Be sure you are logged into the Google account you want to save these files into first. When you select the links on the next page, it will ask you to make a copy of the assignment. Select "Make a Copy".



Oxidation Number and Galvanic Cell Parts Tarsia Puzzles cont.

Preview	Student File	Answer Key
	Oxidation Number Tarsia	Oxidation Number Tarsia – Answer Key
	Galvanic Cell Tarsia	Galvanic Cell Tarsia – Answer Key

2. These copies in your drive are now your Master Templates.

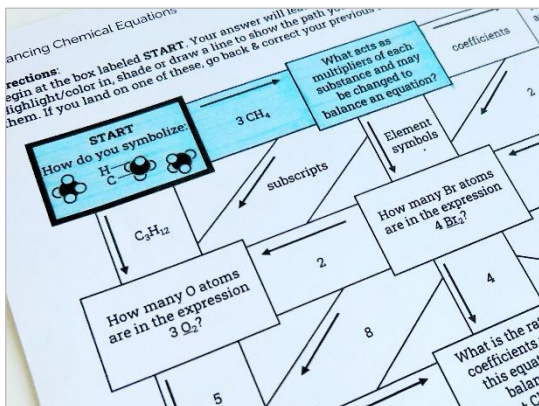
3. Printable PDF versions can be found after Terms of Use.

Teacher Tips

- Printable versions: Laminate and cut out the puzzle pieces for repeated use. Store them in individual baggies and all baggies in one large manila envelope or larger baggie for *easy* use in the future.
- Print out multiple copies of the answer keys for students to check their answers against can free you up to help those who need it.
- Students can work individually or together in groups of 2-3 for collaboration and test review. For digital collaboration, your students can share a Google slide deck with each other working on one document.
- Pass out the template for students to glue their tarsia pieces on to turn in or glue into their notebook.
- Do you need a clear, easy to read, updated periodic table to use while completing this activity? Periodic tables and an activity can be found in this popular [Freebie: Periodic Table of Elements Color by Category](#).

Receive this Freebie!

Get this exclusive *no-prep* **balancing equation maze** - *in print and digital* formats that are *self-checking and easy to grade*, as well as receiving tips, ideas, and resources periodically sent to you.



Get My FREE Maze!

Oxidation Number and Galvanic Cell Parts Tarsia Puzzles cont.

Interested in more great resources? Click on the linked icons below:

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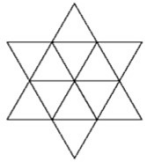
Thank you!



Oxidation Number Tarsia Puzzle

Directions:

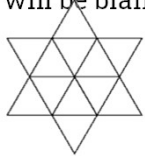
1. Cut along all of the black solid lines.
2. Build the shape below so that each oxidation number edge is facing the same oxidation number as the underlined element. All outer edges will be blank.



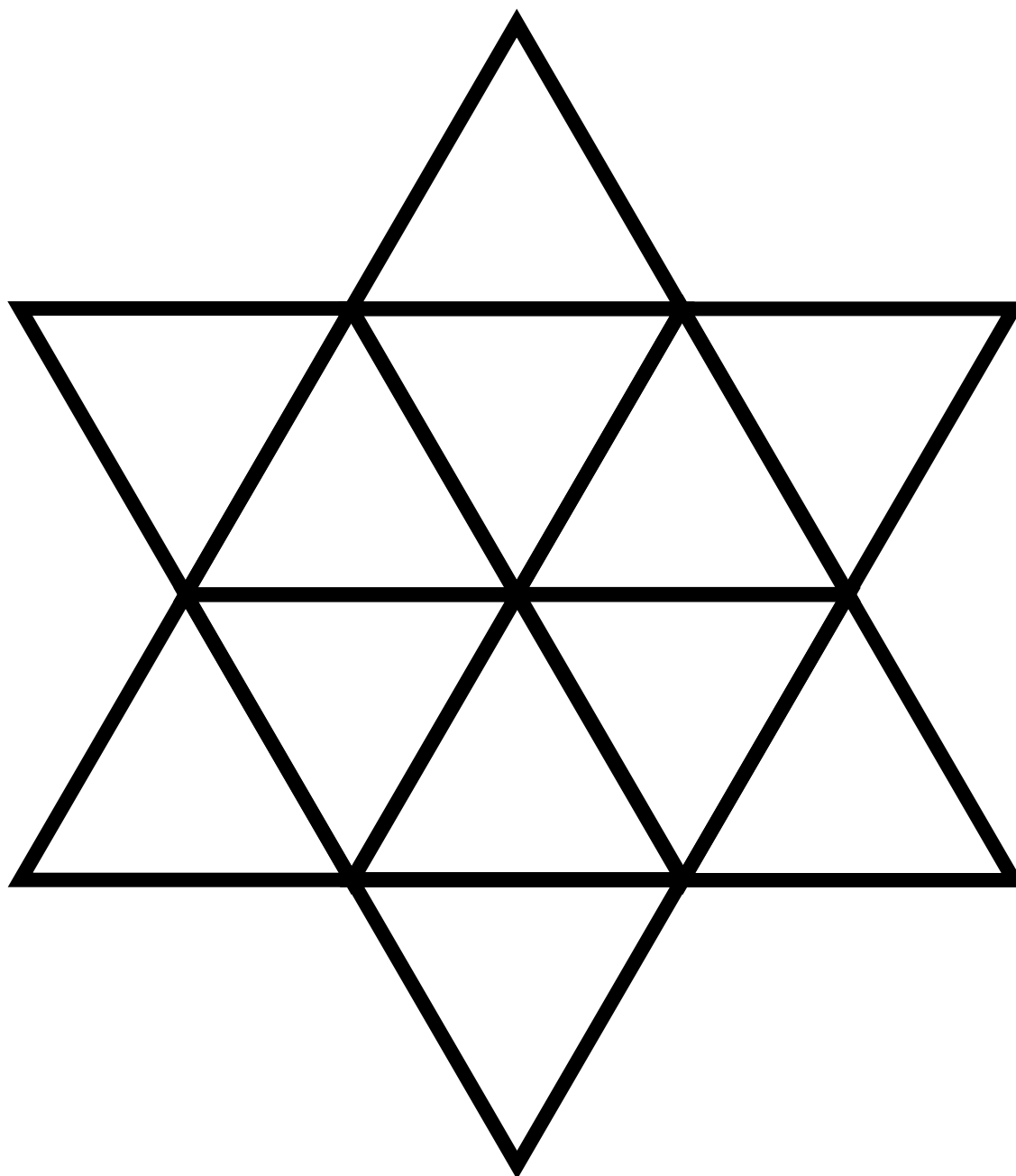
A large diagram of the puzzle pieces. The pieces are arranged in a grid of 2 rows and 3 columns of triangles. Each triangle contains a letter (A through H) and a chemical formula with an underlined element and its oxidation number. The oxidation numbers are: A (+4), B (+2), C (-2), D (+5), E (+3), F (-1), G (+2), H (+2). The chemical formulas are: A (MnO₄), B (NaCl), C (NH₃), D (PbS), E (H₃AsO₃), F (Br₂), G (Cs₂O), H (Ca₂). A dashed horizontal line and a pair of scissors icon are on the left side, indicating where to cut.

Directions:

1. Cut along all of the black solid lines.
2. Build the shape below so that each oxidation number edge is facing the same oxidation number as the underlined element. All outer edges will be blank.



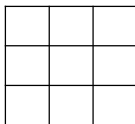
A large diagram of the puzzle pieces, identical to the one above. The pieces are arranged in a grid of 2 rows and 3 columns of triangles. Each triangle contains a letter (A through H) and a chemical formula with an underlined element and its oxidation number. The oxidation numbers are: A (+4), B (+2), C (-2), D (+5), E (+3), F (-1), G (+2), H (+2). The chemical formulas are: A (MnO₄), B (NaCl), C (NH₃), D (PbS), E (H₃AsO₃), F (Br₂), G (Cs₂O), H (Ca₂). A dashed horizontal line and a pair of scissors icon are on the left side, indicating where to cut.



Galvanic Cell Square Tarsia Pieces To Cut

Directions:

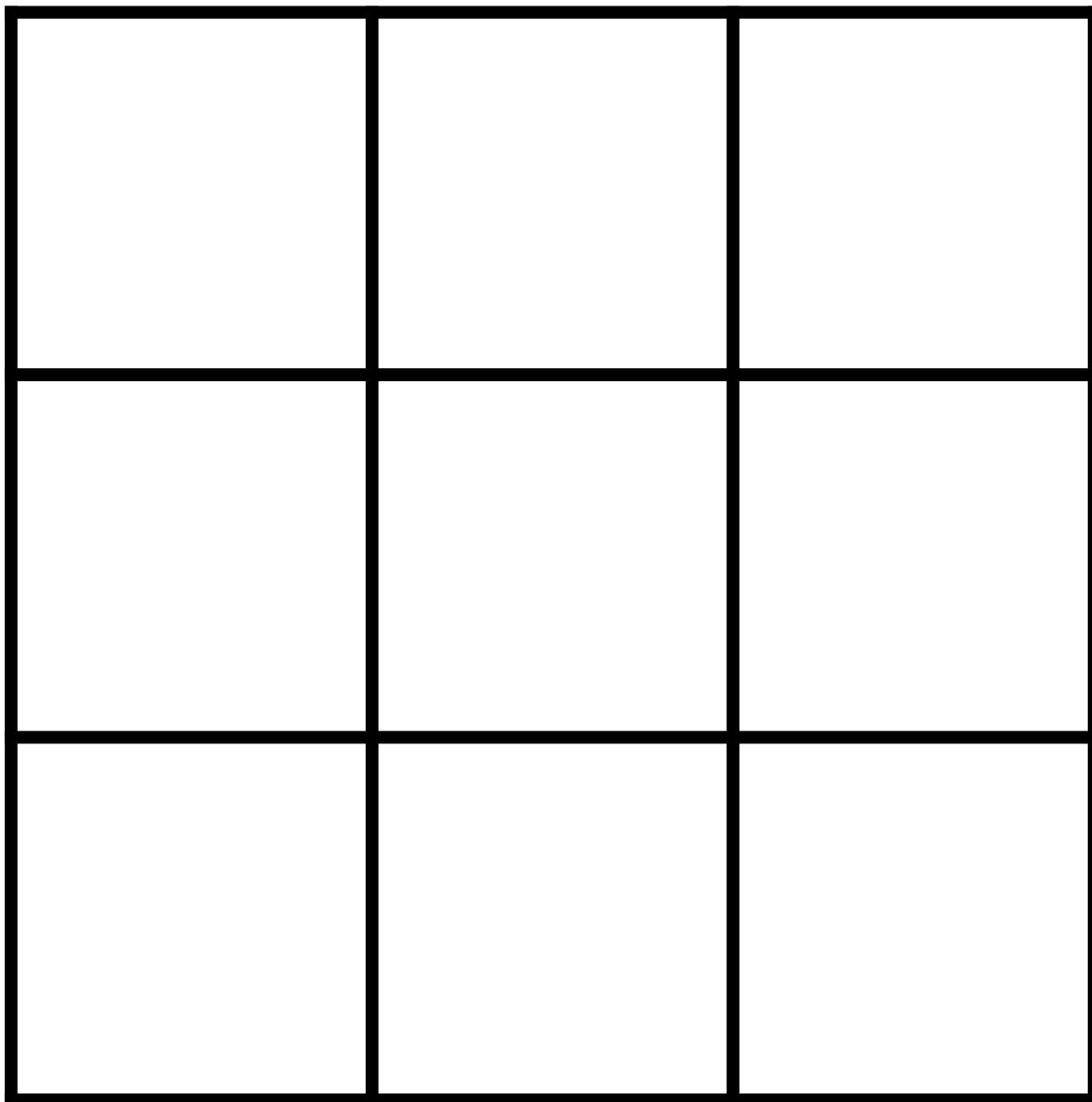
1. Cut along all of the black solid lines.
2. Build the shape below so that each edge has the same answers facing each other. All outer edges will be blank.



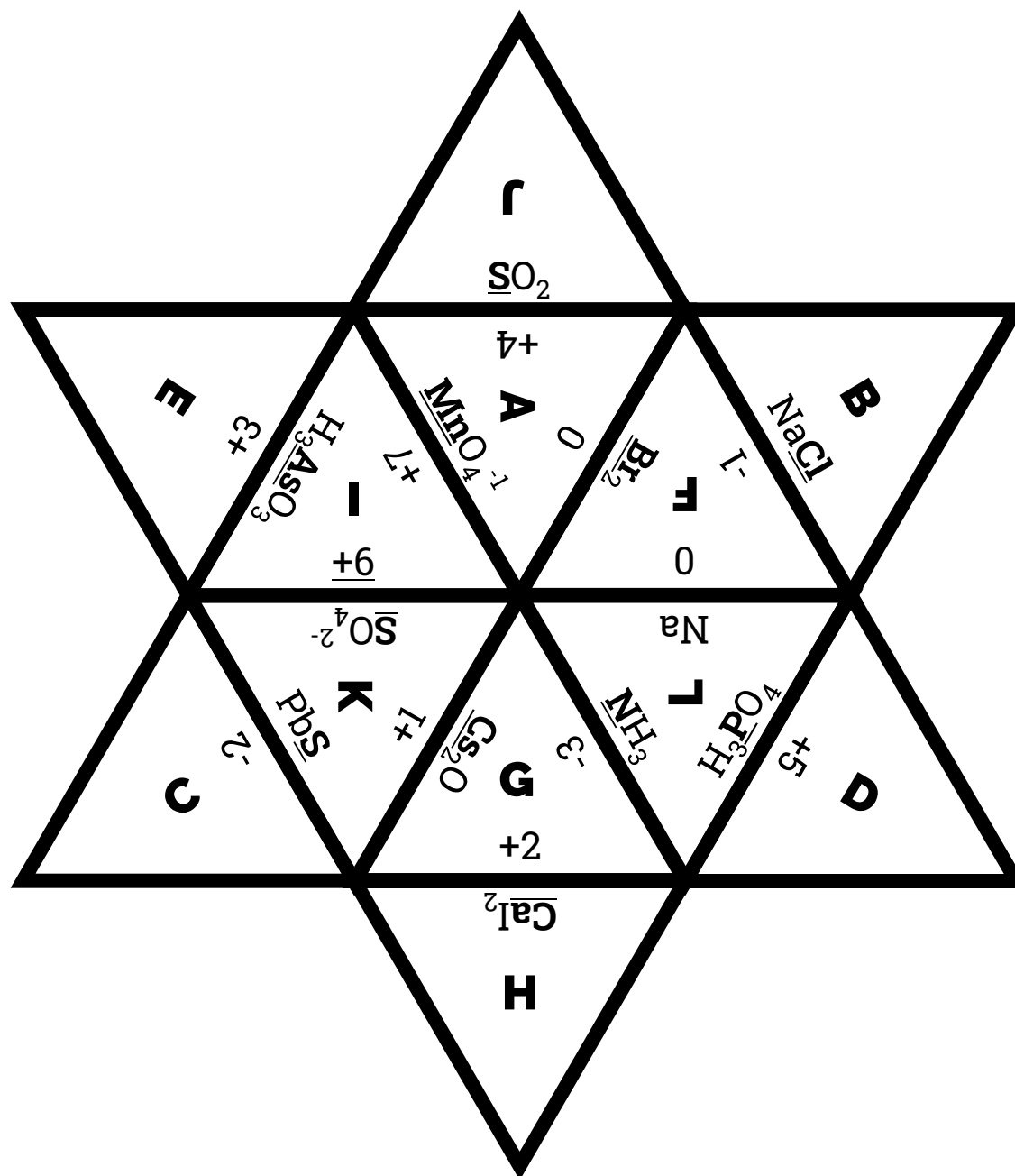
<p>E</p> <p>A redox reaction that is used to generate electricity.</p> <p>Oxidation half-reaction</p> <p>The electrode where the oxidation occurs.</p>	<p>D</p> <p>Through the wire, from the anode to the cathode.</p> <p>The flow of electrons</p> <p>Used to measure a cell's voltage</p> <p>$X^{2+}(aq) + 2e^- \rightarrow X(s)$</p>	<p>H</p> <p>Used to help maintain electrical neutrality by use of mobile ions</p> <p>Galvanic cell</p> <p>The electrode where reduction occurs.</p>
<p>I</p> <p>Cathode</p> <p>Through the salt bridge, toward the cathode.</p>	<p>A</p> <p>Anode</p> <p>This solution decreases in the concentration of the metal ion as the galvanic cell operates.</p>	<p>B</p> <p>Voltmeter</p> <p>The flow of the spectator cation</p>
<p>C</p> <p>Through the salt bridge, toward the anode.</p> <p>This solution increases in the concentration of the metal ion as the galvanic cell operates.</p>	<p>G</p> <p>Reduction half-reaction</p> <p>Cathode solution</p> <p>The flow of the spectator anion</p>	<p>F</p> <p>Salt bridge</p>

Directions:

1. Use the template below to help you build your square tarsia.
2. Build the shape below so that each edge has the same answers facing each other. All outer edges will be blank.



Oxidation Numbers Tarsia Puzzle Answer Key



Galvanic Cell Square Tarsia Answer Key

<p>A</p> <p>Anode</p> <p>This solution decreases in the concentration of the metal ion as the galvanic cell operates.</p>	<p>F</p> <p>Salt bridge</p> <p>Cathode solution</p>	<p>C</p> <p>Through the salt bridge, toward the anode.</p> <p>This solution increases in the concentration of the metal ion as the galvanic cell operates.</p>
<p>E</p> <p>Oxidation half-reaction</p> <p>A redox reaction that is used to generate electricity.</p> <p>The electrode where the oxidation occurs.</p>	<p>B</p> <p>Voltmeter</p> <p>Galvanic cell</p> <p>Used to help maintain electrical neutrality by use of mobile ions</p>	<p>I</p> <p>Cathode</p> <p>Through the salt bridge, toward the cathode.</p> <p>Anode solution</p>
<p>D</p> <p>Through the wire, from the anode to the cathode.</p> <p>The flow of electrons</p>	<p>H</p> <p>Used to measure a cell's voltage</p> <p>The flow of electrons</p>	<p>G</p> <p>Reduction half-reaction</p> <p>The flow of the spectator cation</p>