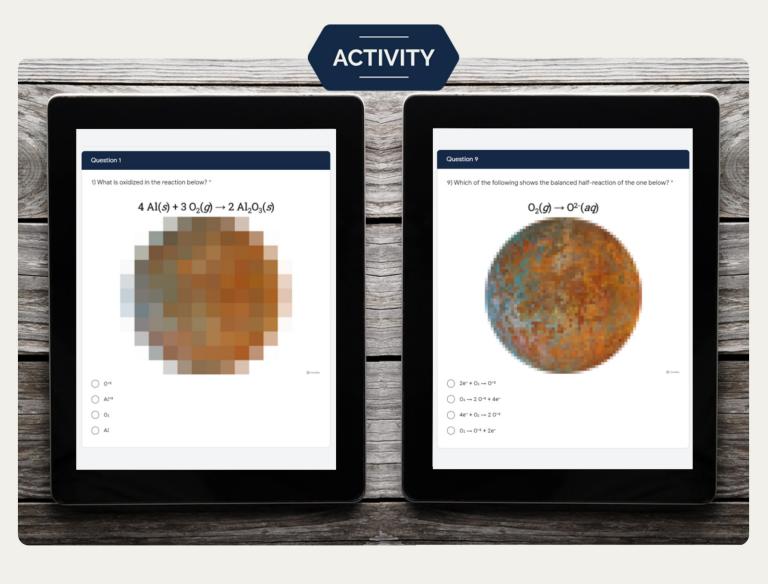
# Redox Reactions

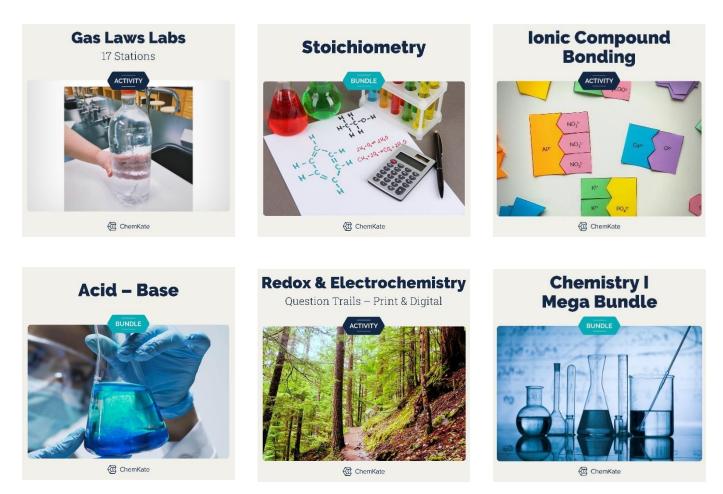
# Print, Digital, and Editable





# Redox Reactions Image Reveal – Print and Digital

Thank you for your download! You might also be interested in the <u>linked</u> images below:



This *no-prep*, *editable* redox reactions practice, *in print and self-grading digital format*, engages students solving for what is oxidized, reduced, and balancing half-reactions. Students can complete the redox problems with a Google Form that *gives students instant feedback* and reveals a pixelated image as they work. Great for entrance/exit tickets, homework, assessments, or for early finishers.

◆ This is available in my costs-savings <u>Redox Reactions Bundle</u>, the <u>Chemistry Image Reveal Bundle</u> and save *time and assurance* with all the activities found in this <u>Chemistry I MEGA Activity Bundle</u> - Visit this bundle to see a wide variety of guided inquiry activities, graphic organizers and digital practice and application ◆

Topics:

- · Identifying what is oxidized or reduced in full, half-reactions, and net ionic equations
- Balancing half-reactions
- Identifying a half-reaction as oxidation or reduction

### 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 link(s) *on the next page*, it will ask you to make a copy of the assignment. Select "Make a copy".

	Google Drive	]
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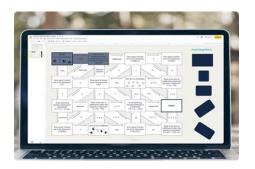
Redox Reactions Image Reveal cont.

Preview	Digital File Link(s)	Background Info
Redscharge Neuel	Redox Reactions Image Reveal Google Form	<ul> <li>Current editable Form settings <sup>(*)</sup></li> <li>General &gt; Limited to 1 response</li> <li>Quizzes &gt; Release grade &gt; Immediately after each submission and show Missed questions</li> <li>For more help from Google with how to edit google forms for your specific needs, see tips from Google<sup>™</sup> <u>here</u>.</li> </ul>
In the second se	<u>Redox Reactions Editable</u> <u>Worksheet</u>	These slides can be downloaded as a PowerPoint. Once copied, select File > Download > Microsoft PowerPoint (.pptx)

2. These copies in your drive are now your Master Templates. I would recommend changing the name of the file and organizing the file into a folder so that you can easily access it later.

## **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 Maze!

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

Bd	Nm	Ml	Vs	Lb
Bonding	Naming	Mole	VSEPR	Labs

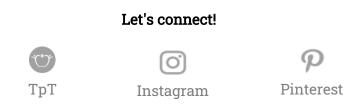
# Redox Reactions Image Reveal cont.

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Thank you!

Directions: Complete each below.

1) What is oxidized in the reaction below?

4 Al(s) + 3 
$$O_2(g) \rightarrow 2 Al_2O_3(s)$$

is oxidized

2) Does this unbalanced half-reaction show oxidation or reduction?

 $Ni(s) \rightarrow Ni^{2+}(aq)$ 

3) What is reduced in the reaction below?

 $P_2O_5(s) + 5 C(s) \rightarrow 2 P(s) + 5 CO(q)$ 

\_ is reduced

4) Is the reaction below a redox reaction?

 $AgNO_3(aq) + NaCl(aq) \rightarrow AgCl(s) + NaNO_3(aq)$ 

5) What is oxidized and what is reduced in the equation below?

 $2 \operatorname{Cr}_2 \operatorname{O}_3(s) + 3 \operatorname{C}(s) \rightarrow 4 \operatorname{Cr}(s) + 3 \operatorname{CO}_2(g)$ 

\_\_\_\_\_ is oxidized

\_\_\_\_\_ is reduced

Name:\_\_\_\_\_ Pd\_\_\_\_

6) What is oxidized in the reaction below?

 $\operatorname{Zn}(s) + \operatorname{NO}_3(aq) \to \operatorname{Zn}^{2+}(aq) + \operatorname{NO}_2(q)$ 

\_\_\_\_\_ is oxidized

7) How many electrons and on which side of the reaction are needed to balance this half-reaction?

$$\operatorname{Sn}^{4+}(aq) \to \operatorname{Sn}^{2+}(aq)$$

8) What is reduced in the reaction below?

 $2 \operatorname{Cr}(s) + 3 \operatorname{Ni}^{2+}(aq) \rightarrow 2 \operatorname{Cr}^{3+}(aq) + 3 \operatorname{Ni}(s)$ 

\_\_\_\_\_ is reduced

9) Circle the equation that shows the balanced half-reaction of the one below:

$$O_2(q) \rightarrow O^{2-}(aq)$$

 $4e^- + 0_2 \rightarrow 2 \ 0^{-2} \qquad \qquad 2e^- + 0_2 \rightarrow 0^{-2} \qquad \qquad 0_2 \rightarrow 2 \ 0^{-2} + 4e^- \qquad \qquad 0_2 \rightarrow 0^{-2} + 2e^-$ 

10) What is neither oxidized nor reduced in the reaction below?

$$2 H_2S(g) + 3 O_2(g) \rightarrow 2 H_2O(l) + 2 SO_2(g)$$

\_\_\_\_\_ is neither oxidized or reduced

**Redox Reactions** 

Directions: Complete each below.

1) What is oxidized in the reaction below?

$$\begin{array}{c} 4 \text{ Al}(s) + 3 \text{ O}_2(g) \rightarrow 2 \text{ Al}_2 \text{ O}_3(s) \\ 0 & 0 & +3, -2 \end{array}$$

Al \_\_ is oxidized

2) Does this unbalanced half-reaction show oxidation or reduction?

$$\begin{array}{c} \mathrm{Ni}(s) \rightarrow \mathrm{Ni}^{2+}(aq) \\ 0 \qquad +2 \end{array}$$

oxidation

3) What is reduced in the reaction below?

 $\begin{array}{c} {\rm P_2O_5}(s) + 5 \ {\rm C}(s) \rightarrow 2 \ {\rm P}(s) + 5 \ {\rm CO}(g) \\ + 5 \ - 2 \ 0 \ 0 \ + 2 \ - 2 \end{array}$ 

P<sup>+5</sup> is reduced

4) Is the reaction below a redox reaction?

 $\begin{array}{l} \operatorname{AgNO}_3(aq) + \operatorname{NaCl}(aq) \to \operatorname{AgCl}(s) + \operatorname{NaNO}_3(aq) \\ +1, -1 & +1, -1 & +1, +5, -2 \end{array}$ 

No

5) What is oxidized and what is reduced in the equation below?

Cr<sup>+3</sup> is reduced

6) What is oxidized in the reaction below?

$$Zn(s) + NO_3^-(aq) \rightarrow Zn^{2+}(aq) + NO_2(g)$$
  
0 +5, -2 +2 +4, -2

\_\_\_\_\_ is oxidized

7) How many electrons and on which side of the reaction are needed to balance this half-reaction?

$$\operatorname{Sn}^{4+}(aq) \rightarrow \operatorname{Sn}^{2+}(aq)$$

2e<sup>-</sup> added to the reactant side.

8) What is reduced in the reaction below?

$$\begin{array}{c} 2 \operatorname{Cr}(s) + 3 \operatorname{Ni}^{2+}(aq) \to 2 \operatorname{Cr}^{3+}(aq) + 3 \operatorname{Ni}(s) \\ 0 + 2 + 3 0 \end{array}$$

Ni<sup>2+</sup>\_\_\_\_ is reduced

9) Circle the equation that shows the balanced half-reaction of the one below:

$$O_2(q) \rightarrow O^{2-}(aq)$$

$$\begin{array}{cccc} 4e^- + \ 0_2 \rightarrow 2 \ 0^{-2} & 2e^- + \ 0_2 \rightarrow 0^{-2} & 0_2 \rightarrow 2 \ 0^{-2} + 4e^- & 0_2 \rightarrow 0^{-2} + 2e^- \end{array}$$

10) What is neither oxidized nor reduced in the reaction below?

$$\begin{array}{c} 2 \text{ H}_2\text{S}(g) + 3 \text{ O}_2(g) \rightarrow 2 \text{ H}_2\text{O}(l) + 2 \text{ SO}_2(g) \\ +1, -2 & 0 & +1, -2 & +4, -2 \end{array}$$

<u>H<sup>+1</sup></u> is neither oxidized or reduced