[www.ck12.org](http://www.ck12.org/) **Oxygen in Reactions Practice Worksheet**

For each question, three to four alternative choices are given, of which one, or more than one is correct. You have to select the correct alternatives and mark it in the appropriate option.

1. When carbon is oxidized in the equation of CH4(g)+2O2(g) →CO2(g)+2H2O(g). What will happen?

a. Lost H

b. Lost O

c. Added H

# d. Added O

1. Oxidation is defined as a gain of oxygen atoms. ( True/False )
2. Reduction is defined as a \_\_\_\_\_ of oxygen atoms.
3. The reaction of substances with bleach or hydrogen peroxide is also oxidation. ( True/False )

# Multiple Choice Questions

For each question, four alternative choices are given, of which only one is correct. You have to select the correct alternative and mark it in the appropriate option.

1. Which equation does NOT involve reduction?
   1. 2*FeO*(*s*)→ 2*Fe*(*s*)+*O*2(*g*)
   2. NH3(aq) + H+(aq) → NH+4(aq)
   3. *C*6*H*6(*l*)+3*H*2(*g*)→*C*6*H*12(*l*)
   4. 2*SO*3(*g*)→ 2*SO*2(*g*)+*O*2(*g*)
2. Which is reduction?
   1. loss of oxygen or gain of hydrogen
   2. loss of hydrogen only
   3. loss of oxygen only
   4. gain of hydrogen only
3. When oxygen is reduced in the equation of *CH*4(*g*)+2*O*2(*g*)→*CO*2(*g*)+2*H*2*O*(*g*). What will happen?

a. Lost H

* 1. Added O
  2. Lost O
  3. Added H

1. What substances are frequently capable of reacting with oxygen?

a. nonmetals

* 1. molecular compounds
  2. metals
  3. all of the above

1. What can combine with oxygen gas to form oxides?
   1. ionic compounds
   2. metals only
   3. elements only
   4. elements or compounds
2. The opposite of oxidation is \_\_\_\_\_.
   1. oxygenation
   2. hydrolysis
   3. reduction
   4. deoxidation

# Answer Keys

1. Lost H , Added O
2. TRUE **3.** Loss
3. TRUE
4. *NH*3(*aq*)+*H*+(*aq*)→ *NH*4+(*aq*)
5. loss of oxygen or gain of hydrogen
6. Added H
7. all of the above
8. elements or compounds
9. reduction

[www.ck12.org](http://www.ck12.org/)