

Name _____

Date _____

Oxidation Numbers

- Recall that elements contain the _____ of positively charged _____ and negatively charged _____.
 - Since the charges balance each other out, _____ have a _____.
- When an atom _____ or _____ an _____ it _____ a _____.
 - Charges can be either positive or negative.
- Atoms with a charge are called _____.
 - If an atom _____ an electron, it will develop a _____ charge.
 - If an atom _____ an electron, it will develop a _____ charge.
- Only _____ will _____ electrons to form _____ ions.
 - Some metals lose their electrons more easily than others and are said to be more reactive.
 - The _____ and the _____ lose their valence electrons very easily and are the _____ metals.
 - As a rule, metals become more reactive the _____ you go on the periodic table and the _____ you go, making francium the most reactive metal.
- Only _____ will _____ electrons to form _____ ions.
 - Nonmetals will gain enough electrons to meet the octet rule.
 - The _____ group only needs to gain one valence electron, making them the _____ non-metals.
 - As a rule, nonmetals become more reactive the _____ you go on the periodic table and the _____ you go, making fluorine the most reactive nonmetal.

Oxidation Numbers

- The specific charge an atom develops is called its _____.
- All the _____, with only 1 valence electron, will _____ electron and develop a _____ oxidation number.
- All the _____, with 2 valence electrons, will _____ electrons and develop a _____ charge.
- The _____, with 3 valence electrons, will _____ electrons and develop a _____ charge.

- The Carbon group, with 4 valence electrons, behaves a little differently to meet the octet rule.
 - So, we aren't going to assign an oxidation number to the carbon group.
- The _____, with 5 valence electrons needs 3 electrons, so they will _____ electrons and develop a _____ charge.
- The _____, with 6 valence electrons needs 2 electrons, so they will _____ electrons and develop a _____ charge.
- The _____, with 7 valence electrons needs 1 electron, so they will _____ electron and develop a _____ charge.