



### ACROSS

- 3 The \_\_\_\_\_s or alkyl halides are a group of chemical compounds, consisting of alkanes, such as methane or ethane, with one or more halogens linked, such as chlorine or fluorine.
- 5 A \_\_\_\_\_ reaction is a type of organic reaction in which two substituents are removed from a molecule in either a one or two-step mechanism.
- 6 In a \_\_\_\_\_ reaction, a functional group in a particular chemical compound is replaced by another group.
- 8 \_\_\_\_\_ is a model to explain a particular type of chemical elimination reaction in which there is a one-step process of elimination with a single transition state.
- 9 \_\_\_\_\_ is a model to explain a particular type of chemical elimination reaction in which there is a two-step process of elimination ionization and deprotonation.

### DOWN

- 1 \_\_\_\_\_ substitution is a fundamental class of substitution reaction in which an electron rich nucleophile selectively bonds with or attacks the positive charge of a group or atom called the leaving group.
- 2 A \_\_\_\_\_ is an ion with a positively-charged carbon atom which are intermediates in the E1 and SN1 mechanisms involving reaction with haloalkanes.
- 4 A \_\_\_\_\_ group such as halide is an atom or group of atoms which may detach relatively easily from a chemical substance.
- 6 The \_\_\_\_\_ reaction is a type of nucleophilic substitution in which a lone pair from a nucleophile attacks an electron deficient electrophilic center and bonds to it, expelling another group from the opposite side called a leaving group.
- 7 The \_\_\_\_\_ reaction is a nucleophilic substitution reaction in organic chemistry in which the rate-determining step is unimolecular.