ACROSS
3 In the 1800s, crude was separated into different products by boiling, in a process called ____________.
4 The heat produced by the combustion process is measured in ____________ ____________.
7 At higher temperatures, liquid gasoline can easily vaporize, which can cause ____________.
11 The ____________ of gasoline is the measure of its anti- knock properties.
12 ____________ describes how easily the gasoline evaporates.
13 ____________ is the process where hydrocarbons with higher boiling points could be broken down into lower-boiling hydrocarbons by treating them to very high temperatures.
14 ____________ is the pressure of the vapor above the fuel when the fuel is at 100°F (38°C).
15 ____________ contain oxygen in the molecule of the fuel itself.

DOWN
1 ____________ is a term used to describe a complex mixture of various hydrocarbons refined from crude petroleum oil for use as a fuel in engines.
2 ____________ can break down hydrocarbons that are resistant to catalytic cracking alone, and it is used to produce diesel fuel rather than gasoline.
5 The ideal mixture or ratio at which all of the fuel combines with all of the oxygen in the air and burns completely is called the ____________ ratio, chemically perfect combination.
6 The pump octane is called the ____________.
8 The ____________ is the proportion by weight of air and gasoline that the injection system mixes as needed for engine combustion.
9 One of the first additives used in gasoline was ____________.
10 As it comes out of the ground, ____________ crude can be as thin and light as apple cider or as thick and black as melted tar.