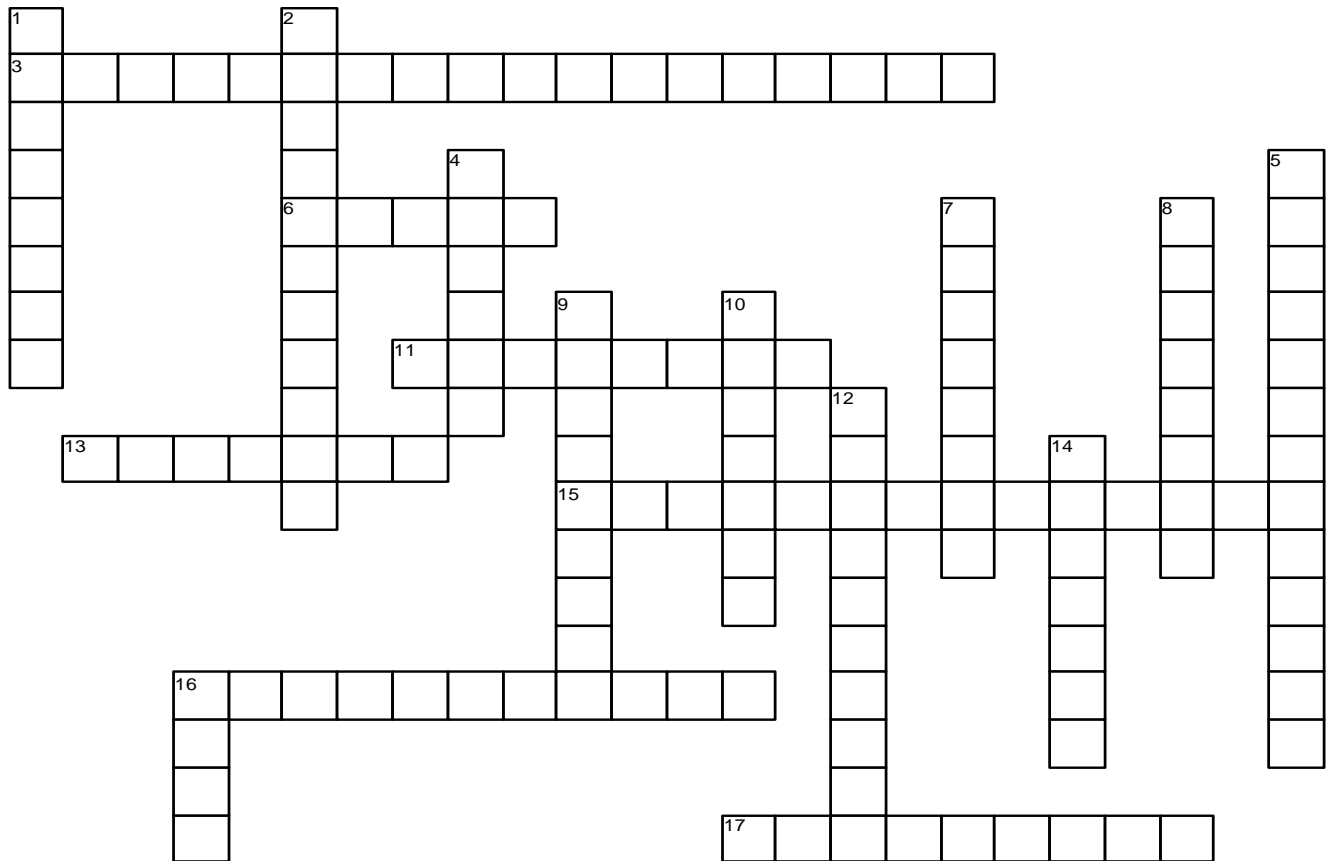


Automotive Background And Overview

Chapter 1



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ACROSS

- 3 The _____ is a unit located in the exhaust system usually close to the engine, which causes chemical changes in the exhaust gases.
- 6 The on-board diagnostic system is currently in the second generation and is called _____.
- 11 After the coolant picks up the heat from the engine, it flows through a _____, which cools the coolant by releasing the heat into the air.
- 13 _____ is a design that combines the body with the structure of the frame.
- 15 After the air is filtered, it passes through a throttle valve and then into the engine through an _____.
- 16 Vehicles with a separate frame and body are usually called _____ vehicles.
- 17 Coolant is circulated by a _____ through passages in the cylinder block and head called water jackets.

DOWN

- 1 Some systems use a _____ to regulate the flow of gasses created in the crankcase of a running engine, which are routed back into the intake manifold.
- 2 Unburned gasoline emissions are called _____.

emissions.

- 4 Most engine are equipped with an _____ containing 3 to 7 quarts of oil.
- 5 _____ is the engine design where the valves are placed in the cylinder head.
- 7 The design where the valves were located in the engine block is called _____ design because the cylinder head simply covered the combustion chamber and included a hole for the spark plug.
- 8 Electronic hand-held testers, called _____, are needed to access stored diagnostic trouble codes and view sensor and system data.
- 9 The air is filtered by a replaceable _____.
- 10 The _____ is a mixture of antifreeze and water to provide corrosion and freezing protection.
- 12 The temperature of the coolant is maintained by using a _____ located in the coolant passage, which opens to allow coolant to flow to the radiator or closes until the coolant is hot enough to need cooling.
- 14 An engine driven _____ forces the oil under pressure through an oil filter, then to passages in the block and head called oil galleries, and then to all of the moving parts.
- 16 The frame or _____ of the vehicle is used to provide the support for the suspension and steering components as well as the power train.