



Unit 1: Safety in the Automotive Shop

6 # of Days

The student will learn general safety in the Automotive Shop. The student will also learn work safety as related to OSHA, MSDS, Right to Know and the identification of hazardous wastes associated with automobiles.



Unit 2: Automotive Fundamentals

6 # of Days

The student will learn the career, educational and certification opportunities within the automotive and related industries. The student will also learn very basic vehicle design, engine, frame and related systems.



Unit 3: Tools and Equipment

5 # of Days

The student will learn the common hand tools used in the servicing of an automobile. The student will also learn the use of basic electrical and electronic testing equipment as needed on late model vehicles.



Unit 4: Gasoline Engine Principles

9 # of
Days

The student will learn the basic theory and principles of internal combustion engines. The student will also learn about four stroke cycle engine theory, air fuel ratios and engine efficiency, horsepower and engine classifications.



Unit 5: General Automotive Economics

9 # of
Days

The student will learn the economics of owning, repairing and maintaining a modern automotive vehicle. The student will also learn analyzing car purchasing, insurance, related operating costs and vehicle sales, along with comprehensive preventative maintenance programs.



Unit 6: Automotive Lubrication

9 # of
Days

The student will learn the purpose of the lubrication system, identify contaminants, oil characteristics, classifications and identify the parts of the lubrication system. The student will also learn the importance of service intervals and regular maintenance programs.



Unit 7: Wheels and Tires

6 # of Days

The student will learn how tires and wheels are designed, constructed, sized and serviced. The student will also learn about analyzing the purpose and operation of the wheels and rims along with driveability related problems.



Unit 8: Cooling system

5 # of Days

The student will learn about the automotive cooling system and coolant characteristics. The various parts of the cooling system are introduced along with their operation, diagnosis and service procedures to maintain the system.



Unit 9: Basic Electrical Theory

9 # of Days

The student will learn about basic electrical/electronic theory within an automobile as it relates to the charging, starting and battery systems.



Reavis High School
Curriculum Snapshot/Cover Page for Auto Maintenance



Unit 10: Ignition Systems

4 # of
Days

The student will learn about the basic operation of conventional and electronic ignition systems. The student will also learn about input sensors, computer sensors and manufacturer differences.



Unit 11: Fuel Delivery Systems

5 # of
Days

The student will learn the basic principles of carburetion, fuel injection, air intake systems and their related exhaust systems. The student will also learn about fuel characteristics, the properties of gasoline and alternative fuels.



Unit 12: Emission Control Systems

5 # of Days

The student will learn basic types of emission control devices used on modern automobiles, the relationship between automobile engine design, computer controls, engine physics and automobile pollution chemistry is analyzed.



Unit 13: Braking Systems

5 # of Days

The student will learn about the basic principles of modern automobile braking systems. The student will also learn about function, design, component identification along with system operation, servicing, troubleshooting and brake maintenance.



Unit 14: Steering and Suspension Systems

6 # of Days

The student will learn about the basic steering and suspension systems used on modern automobiles. The student will also learn about part identification, service and maintenance procedures along with alignment techniques and specifications.