

Lovejoy Junior Lab Off-Site Learning Packet Day 2

Instructor Michael Lovejoy

Date 2019-2020

Program/Class JR AST

Period 1 - 4

State Indicator/Competency

- 3.5. Lubrication and Cooling Systems: Inspect lubrication and cooling systems operation.
- 3.5.2. Perform lubrication, cooling system, and pressure and sensor tests.

Instructional Objective(s)

- 1. Student will be able to identify the radiator cap components with 80 percent accuracy.

Materials

Handout: Activity Sheet #35: Identifying Radiator Cap Components

Method of Instruction

Individual Work

Activities

1. Individual Work

Student will use the internet to label components on the worksheet #35.

- 2. The student will be able to identify the components of radiator cap components.

- 1. The cap is a 2 way valve that controls coolant level by letting the coolant expand past the pressure seal that is sealed against the lower sealing system by pushing on the pressure relief spring the coolant then flows into the overflow hose then to the overflow tank. The coolant begins to cool down then it flows back through the hose to vacuum valve in cap then back into the radiator. The sealing surface on the upper sealing surface is the main seal for the radiator. This system works to maintain the proper coolant level in the radiator. The valve lets coolant flow to and from overflow tank.

Assessment

Informal: Student will receive 10 points for completing assignment.

- This assignment will be graded and count for a homework grade.



Activity Sheet #35

IDENTIFY RADIATOR CAP COMPONENTS

Name _____ Class _____

Directions: Identify the radiator cap components in the drawing. Place the identifying letter next to the name of the component.



- | | | |
|-----------------------------|----------------------------|------------------------------|
| Overflow Hose _____ | Vacuum Valve _____ | Pressure Relief Spring _____ |
| Upper Sealing Surface _____ | Pressure Seal _____ | |
| Lower Sealing Surface _____ | Upper Sealing Gasket _____ | |



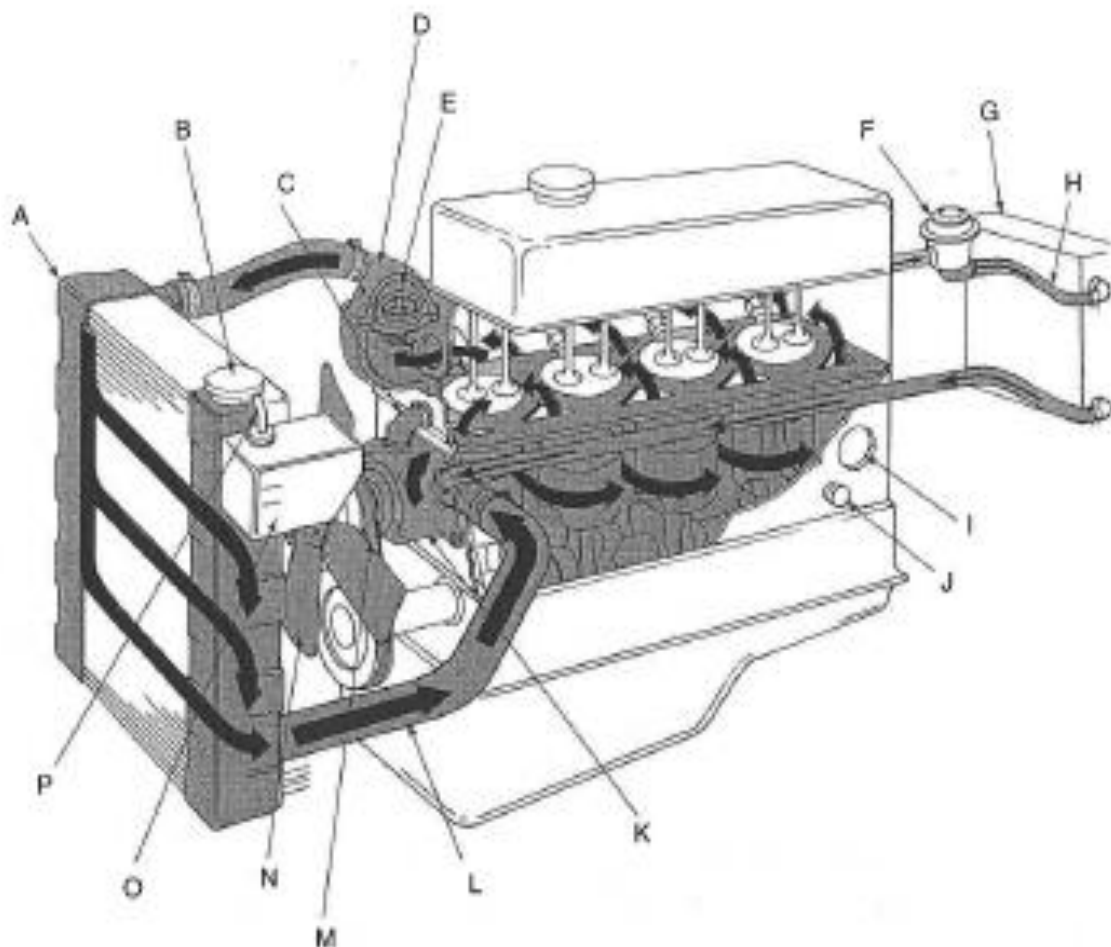


Activity Sheet #34

IDENTIFY COOLING SYSTEM COMPONENTS

Name _____ Class _____

Directions: Identify the cooling system components in the drawing. Place the identifying letter next to the name of the component.



V-Belt _____
 Fan _____
 Drain Plug _____
 Coolant Recovery Tank _____
 Core Plug _____
 Heater Control Valve _____

Water Pump _____
 Heater Supply Hose _____
 Thermostat Housing _____
 Heater Core _____
 By-pass Hose _____

Thermostat _____
 Overflow Tube _____
 Radiator _____
 Pressure Cap _____
 Radiator Hose _____

