

Animation Worksheet: Thermostat Operation

Name: _____ Date: _____

1. An engine thermostat is a _____ valve that controls the flow of coolant between the engine and the radiator.
2. The thermostat's primary function is to help the engine _____ quickly and maintain an optimal operating temperature.
3. Most automotive thermostats use a _____ element to act as the sensing and activating mechanism.
4. When the engine is _____, the wax inside the thermostat is in a solid state.
5. In the solid state, the valve remains _____, which prevents coolant from flowing to the radiator.
6. While the valve is closed, coolant circulates only within the engine by using a _____ passage.
7. As the engine runs and produces heat, the wax inside the thermostat begins to _____.
8. When the wax reaches its set temperature and melts, it _____ significantly in volume.
9. The expanding wax pushes against a rubber diaphragm or a _____, which forces the valve to open.
10. Once the valve is open, _____ coolant is allowed to flow into the radiator to be cooled.