Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ENGINE COMPONENTS AND DESIGN**

**Directions —** Answer the following questions by writing all responses on this sheet.

1. Write the component name in the blank beside each description given.

 A. Foundation of the short block

 B. Absorbs the power released when

 the fuel is ignited

 C. Operates engine's valves

 D. Drives the camshaft

 E. Transmits valve signals from the

 camshaft to the engine valves

 F. Reduces friction between parts

2. Match the descriptions to the engine or vehicle types. Each type will have more than one description that applies.

 \_\_\_\_ A. Diesel engine

 \_\_\_\_ B. Hybrid vehicle

 \_\_\_\_ C. Miller-cycle engine

 \_\_\_\_ D. Rotary engine

1. Uses rotors instead of pistons

2. Uses a supercharger

3. Uses a battery pack and generator

4. Uses direct fuel injection

5. Has a shorter compression stroke

6. Fuel used is oilier than gasoline

7. Uses both an electric motor and gasoline engine

8. Also called the Wankel engine

9. Uses glow plugs for starting in cold weather

3. What are the four strokes that make up a complete cycle of a piston within a cylinder?

 A.

 B.

 C.

 D.

4. Write the engine cylinder arrangement in the blank beside each description.

 A. Cylinders are arranged in four

 rows and look like a "W" from

 the end

 B. Cylinders are positioned in a

 single, straight line

 C. Cylinders placed horizontally

 on either side of the crankshaft

 D. Cylinders are arranged in two

 equal rows and look like a "V"

 from the end

5. What two cooling systems are used for most automotive engines? Indicate which one is most common.

 A.

 B.