

Physics 140 Discovery Room #7

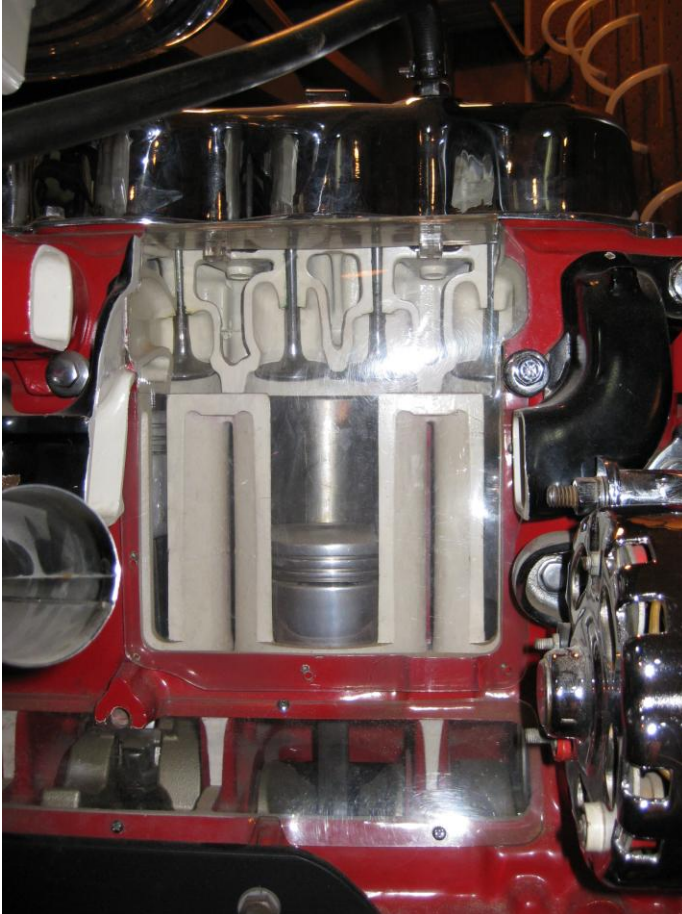
8.1 Air conditioners; 8.2 Automobiles

Name _____

Date/Time _____

Cutaway of a Ford Truck Engine

1. Locate the cylinders, pistons, intake and exhaust valves, camshaft, connecting rods, spark plugs, distributor, and carburetor. Label them on the pictures below.



2. What are the four phases of an internal combustion engine? How can you tell which phase each cylinder is in when you turn the crankshaft with the wrench?

Drinking Birds: Homer's helper

Start the bird drinking the water.

1. What happens when he submerges his head in the water?
2. What causes the bird to periodically dip his head in the water? How can you understand the drinking bird as a heat engine?

Air Conditioner

Find the fan, both coils, and the compressor motor.

1. What are the names of the coils and what are they for? What is the compressor for?
2. Which side is "indoor side" and which side is "outdoor side"?

Using the margins of this sheet of paper, write down a question regarding a topic, concept, or example you do not understand from this week in PHYS140.