

Name _____

Powering the World: How Heat Engines Drive Progress

Multiple Choice Questions

1. What is the primary function of a heat engine?
 - a) To convert electrical energy into mechanical work
 - b) To convert heat energy into mechanical work
 - c) To generate heat energy from mechanical work
 - d) To generate mechanical work from light energy

2. Which thermodynamic principle do heat engines operate based on?
 - a) The first law of thermodynamics
 - b) The second law of thermodynamics
 - c) The law of conservation of energy
 - d) The law of heat transfer

3. Which of the following is NOT a key component of a heat engine?
 - a) Heat source
 - b) Working substance
 - c) Heat sink
 - d) Gearbox

4. What is the purpose of the compression stage in a heat engine cycle?
 - a) To release excess heat
 - b) To absorb heat from the surroundings
 - c) To return the working substance to its initial state
 - d) To expand the working substance

5. Which type of heat engine is commonly found in cars?
 - a) Steam engines
 - b) External combustion engines
 - c) Internal combustion engines
 - d) Diesel engines

