

Name _____

What are Heat Engines, and How do They Convert Heat into Useful Work?

Multiple Choice Questions

1. What is the main purpose of a heat engine?
 - a) To release heat into the environment
 - b) To convert heat into useful work
 - c) To cool down a hot source
 - d) To compress a working substance

2. Which of the following is NOT one of the key components of a heat engine?
 - a) A hot source
 - b) A working substance
 - c) A mechanism to do work
 - d) A cooling reservoir

3. What is the role of the compression step in the thermodynamic cycle of a heat engine?
 - a) To release heat
 - b) To expand the gas
 - c) To increase pressure and temperature
 - d) To cool down the gas

4. Steam engines are an example of which type of heat engine?
 - a) External combustion engines
 - b) Internal combustion engines
 - c) Electric engines
 - d) Hydraulic engines

5. Why is efficiency important in heat engines?
 - a) To increase heat input
 - b) To reduce environmental impacts
 - c) To generate more heat
 - d) To release excess heat

