


Into the belly of the ship: Plenary revision sheet

 Complete this exercise sheet to show that you understand the theory behind heating and cooling and energy transfer on ships

Q1. Fill in the missing word:

Fuel contains stored energy in the form of C _____ energy



Q2. Fill in the missing word:

The chemical energy stored in fuel is transferred to heat energy by a chemical reaction called

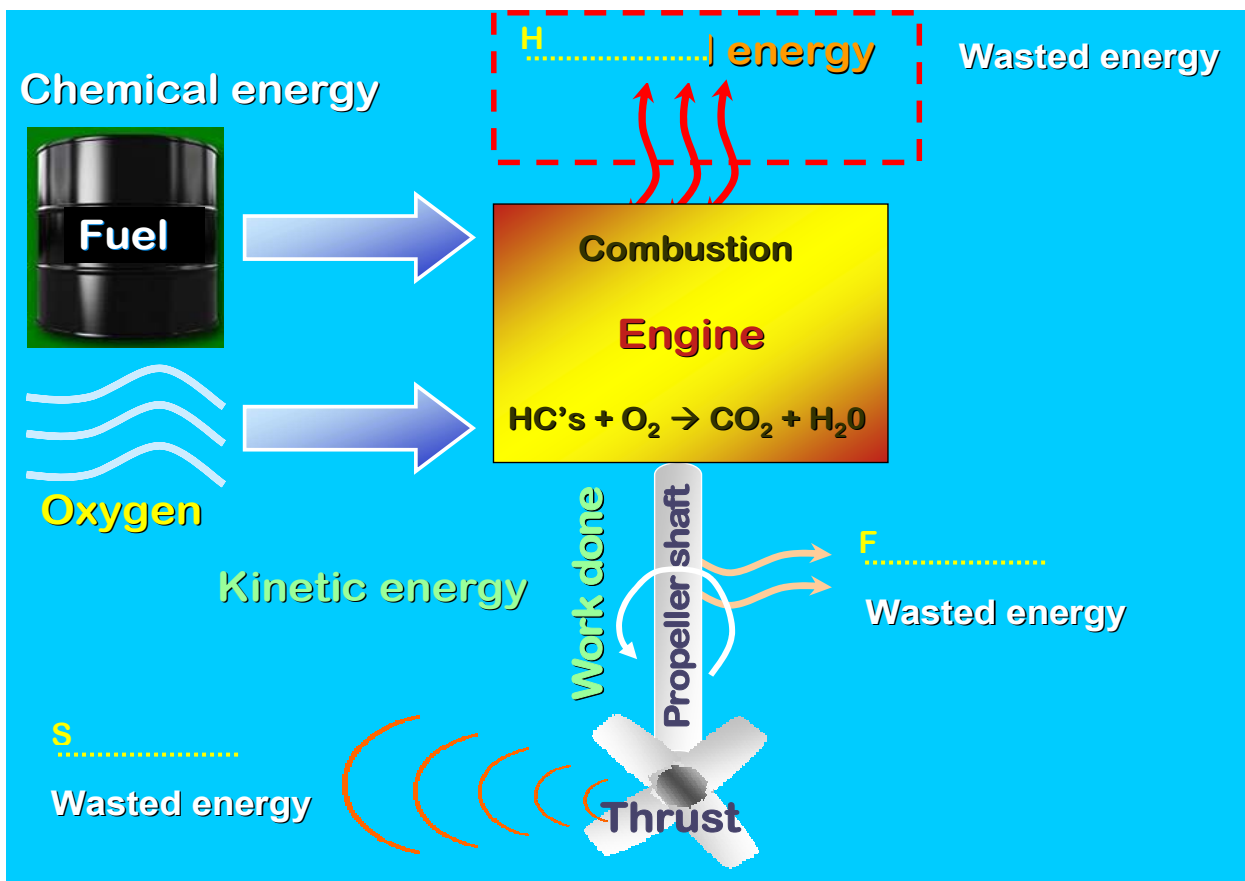
C _____



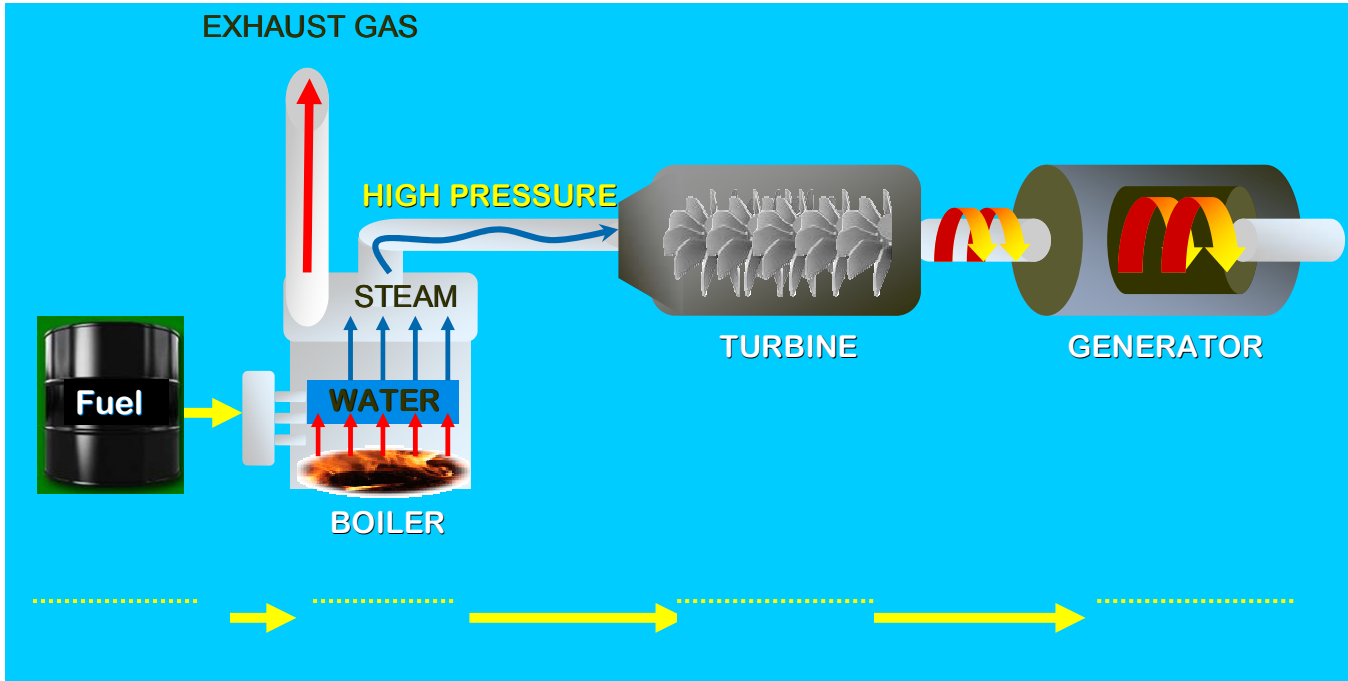
Q3. Fill in the missing word:

Rotation of the propeller shaft on a ship is an example of K _____ energy

Q4. Fill in the missing words on the diagram below to indicate the names of the three main forms of wasted energy during the generation of thrust on ships



Q5. Fill in the blanks on the diagram below to indicate the forms of energy being converted at each stage of the generation of auxiliary power on ships

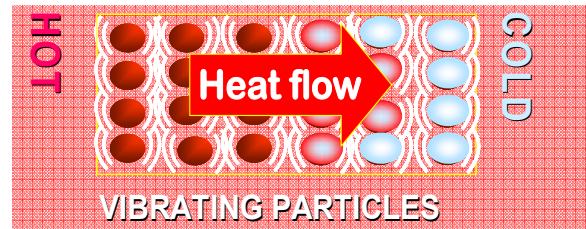


Q6. Fill in the missing words:

The 3 main ways heat energy is transferred is by _____, _____ and _____.

Q7. Fill in the missing words:

Conduction:



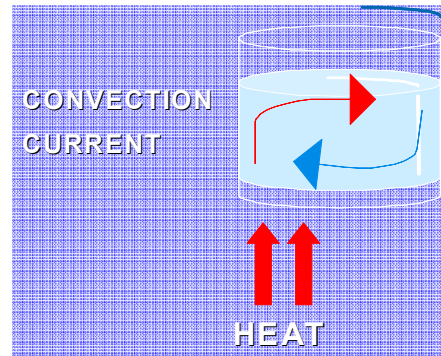
This is the _____ of heat energy from _____ parts to _____ parts without any _____ of the substance. This method of heat transfer works best in _____.

A substance is a _____ conductor of heat if the _____ flows through it easily. An example of a good conductor is _____. A poor heat conductor is called an _____. An example of a good insulator is _____.

Polystyrene good cooler transfer movement energy metal insulator warmer solids

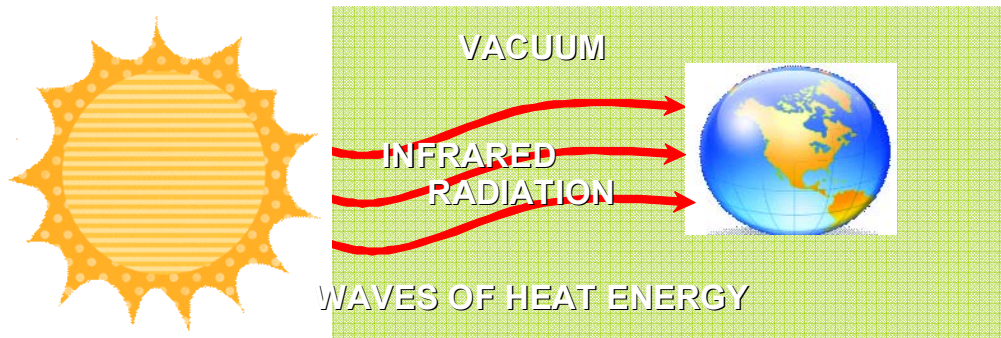
Convection:

This is the _____ of heat energy through the _____ of _____ themselves. _____ moves from _____ areas to _____ areas.



Liquids and _____ can transfer heat energy by _____ because the _____ can move around, unlike particles in a _____. Because the particles in liquids and gases can move around, we refer to them as _____.

cooler fluids warmer particles gases solid convection particles movement transfer energy



Radiation:

This is the transfer of heat energy in _____. Radiated heat can travel through a _____, which is an empty space with no _____ in it.

This is why ice cream melts in the sun.

particles waves vacuum

Q8. Tick the correct answer:

1 – Insulators are good conductors

2 – Insulators are poor conductors

Q9. List two ways heat energy is conserved on ships:
