Conduction

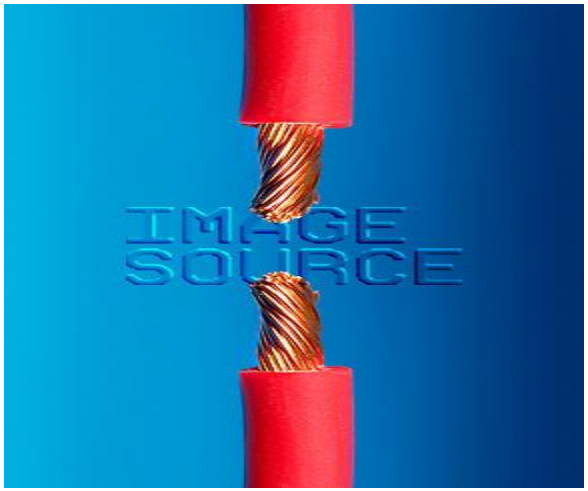
Conduction –

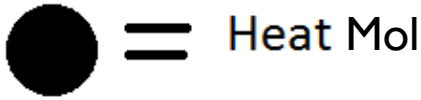
Conduction is heat transfer by Direct Contact.

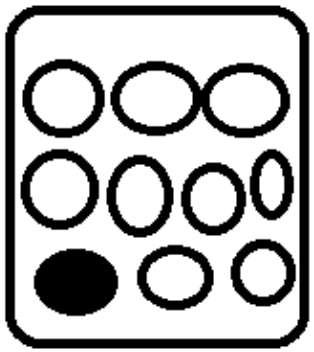
Duct tape (DUCT)

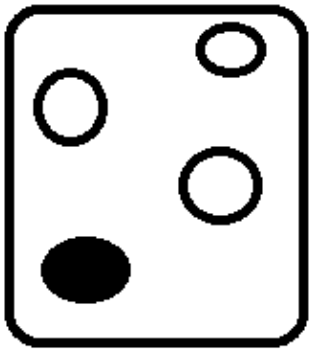
Train conductor

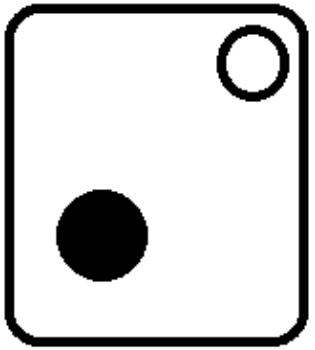
Conducting electricity

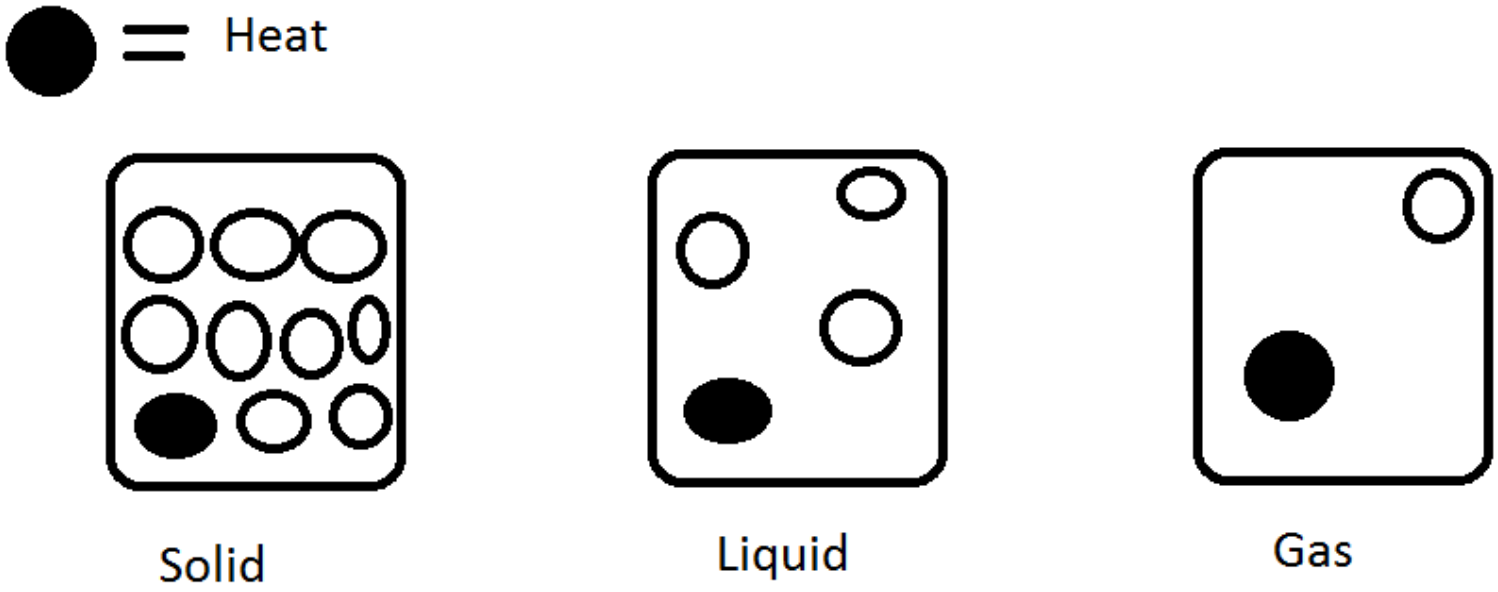



Heat Molecule

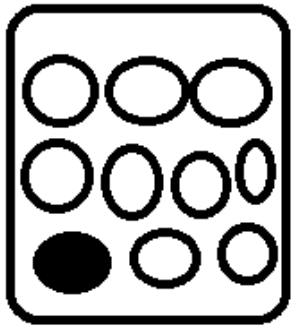







= Heat
Solid
Liquid
Gas

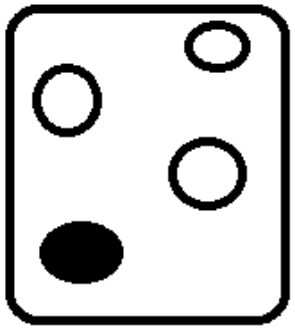
● = Heat



Solid

Molecules close

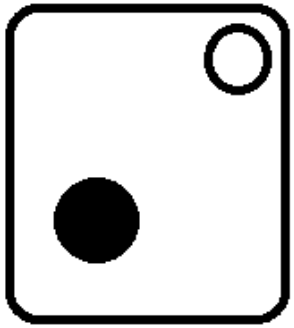
Easy to pass heat



Liquid

Molecules spread

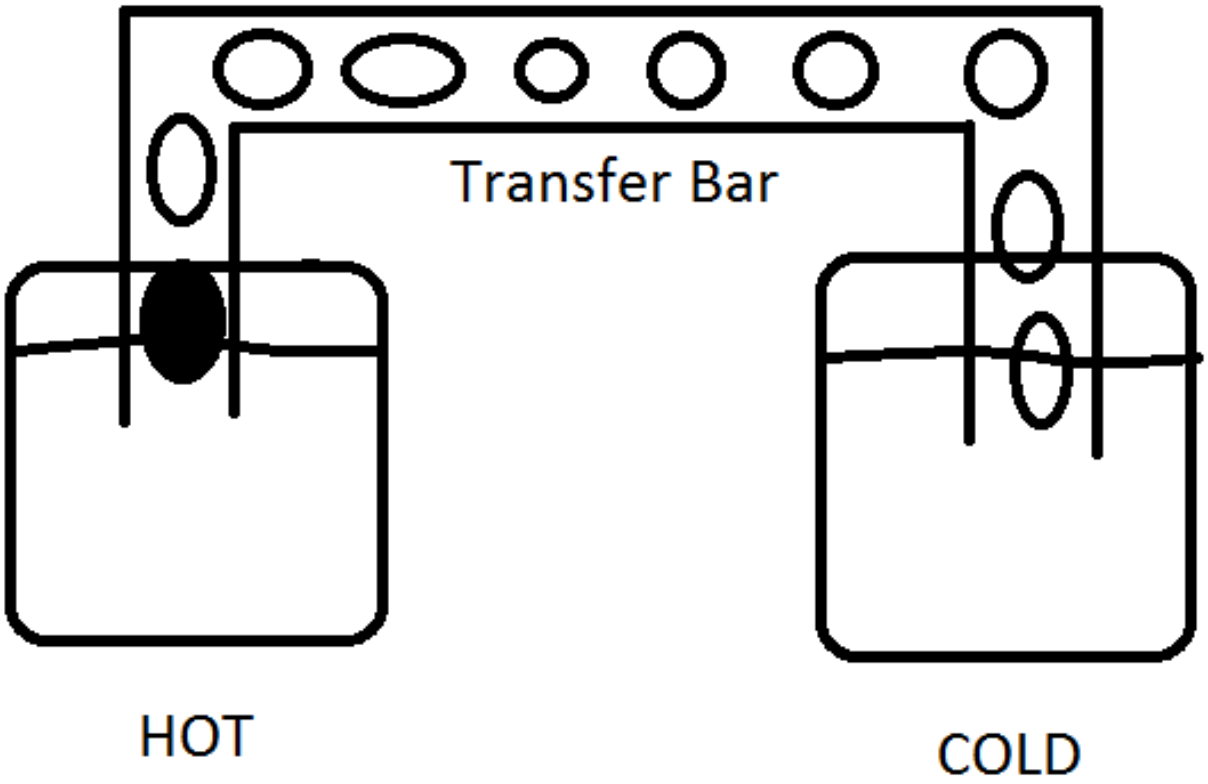
Harder to pass heat

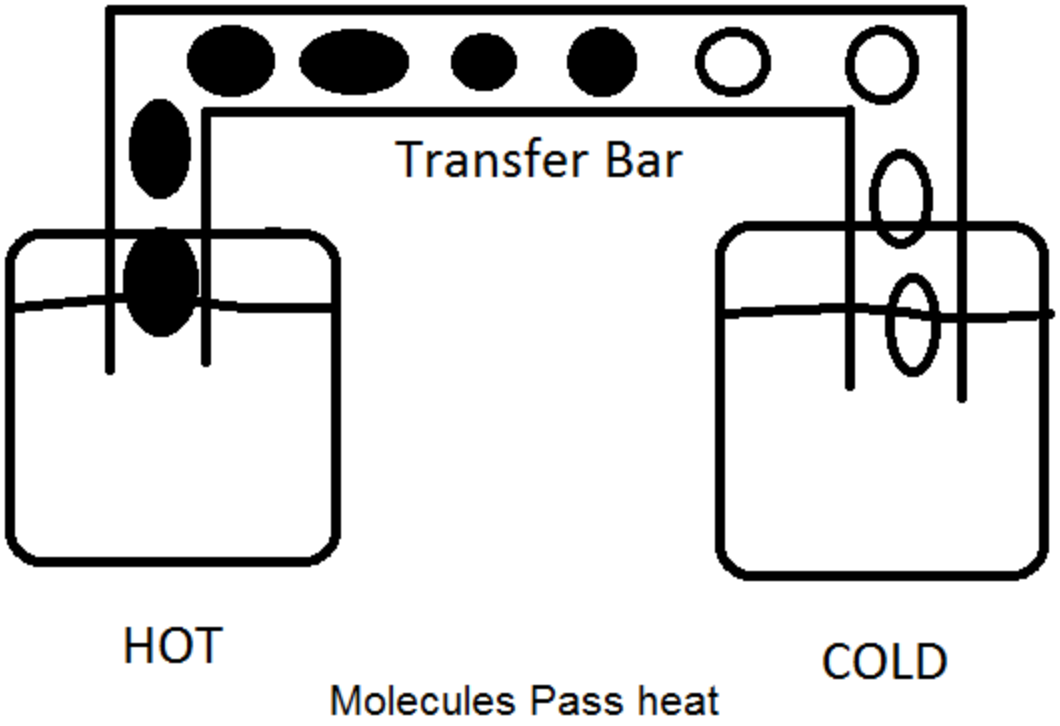


Gas

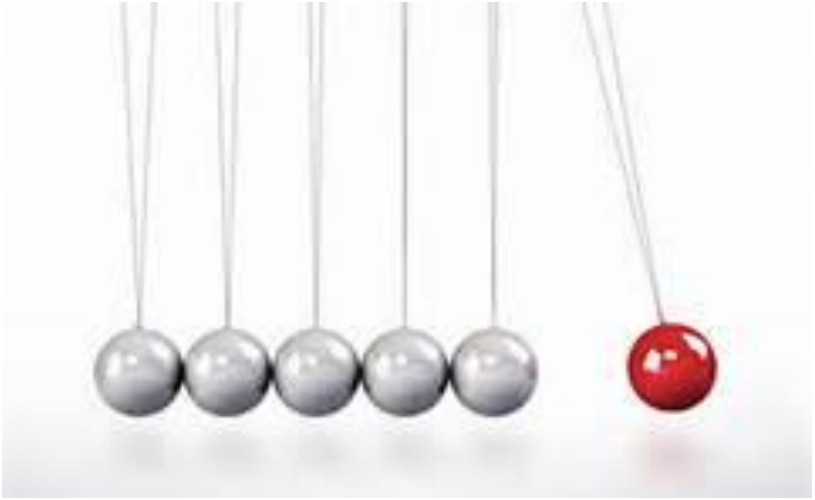
Molecules far apart

Hardest to pass heat


Transfer Bar
HOT
COLD



Heat travels from Hot to Cold



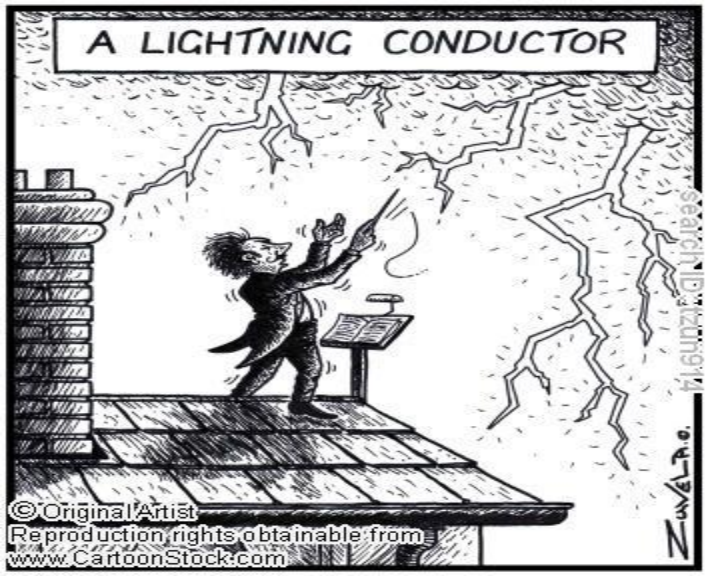
Why science teachers are not asked to monitor recess.

Conduction

- How does conduction happen?
- Conduction happens when molecules pass heat to each other.
- What direction does the heat flow?
- Heat flows from hot to cold.
- More energy to less energy
- What state of matter will work best for conduction?
- Solids work best because the molecules are close together and can easily pass the heat.

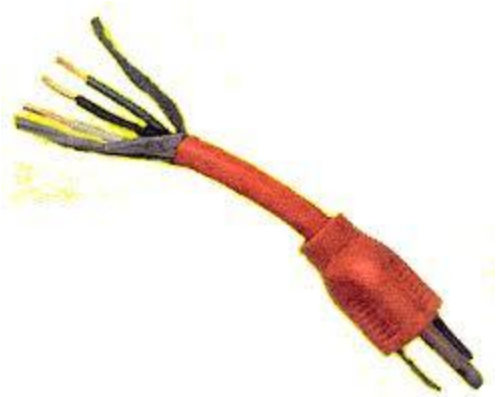
Conduction

- What do you call an object that conducts heat?
- Conductor is an object that will pass heat.
- Ex. Metal (metal spoons in soup, metal lightning rods)



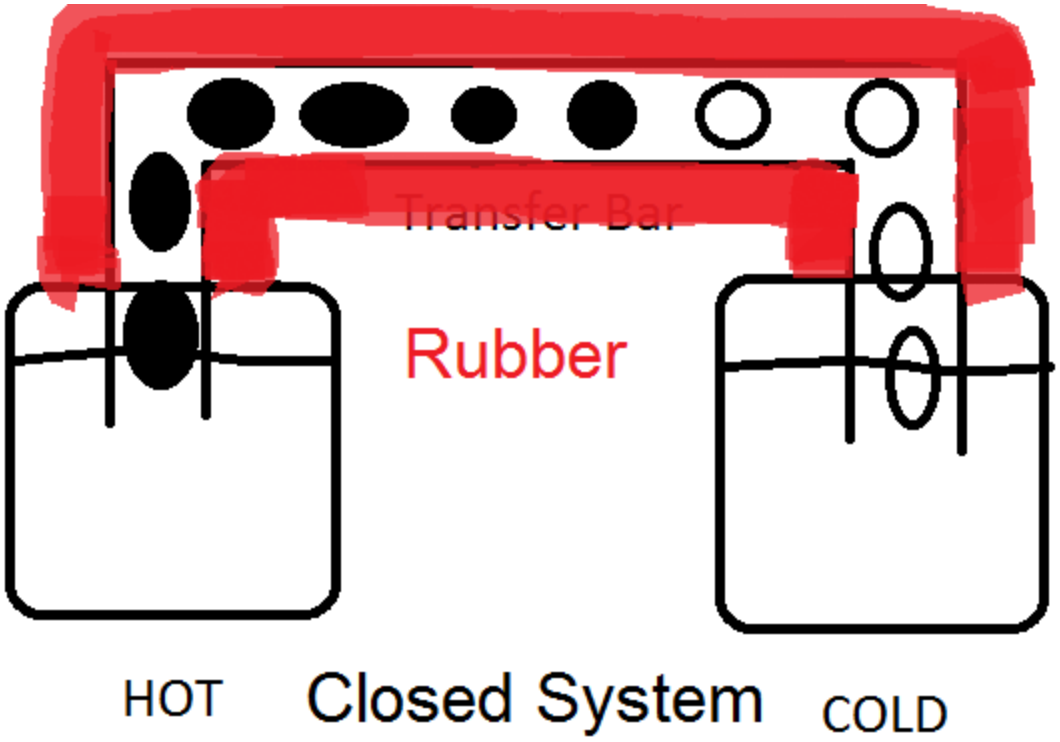
Conduction

- What do you call an object that will stop heat transfer?
- Insulators stop heat transfer.
- Ex. Rubber (rubber around electric cords, house insulation)



What is a closed system?

- A closed system does not exchange matter with its surrounding.
- How can we make a closed system?
- Insulators create closed systems.



Convection / Conduction (G)

- Define Convection.
- How does it work?
- Best in what state(s) of matter?
- 3 real world example.
- Define Conduction.
- How does it work?
- Best in what state of matter?
- 3 real world examples.
- How could we prevent heat loss from the bar?

Conduction (R)

- Define Conduction?
- How does it happen?
- Best in what state of matter? Why?
- Direction of Heat flow?
- Define Conductor (2 examples).
- Define Insulator (2 examples).
- How could we reduce heat loss by the bar?
- Draw and label a picture of conduction.