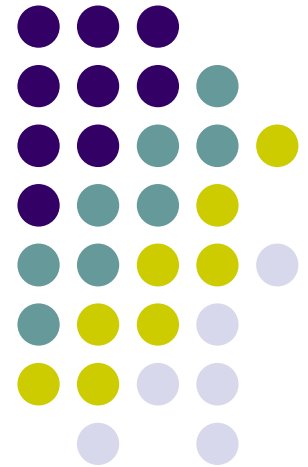
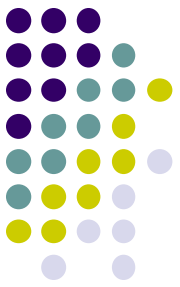
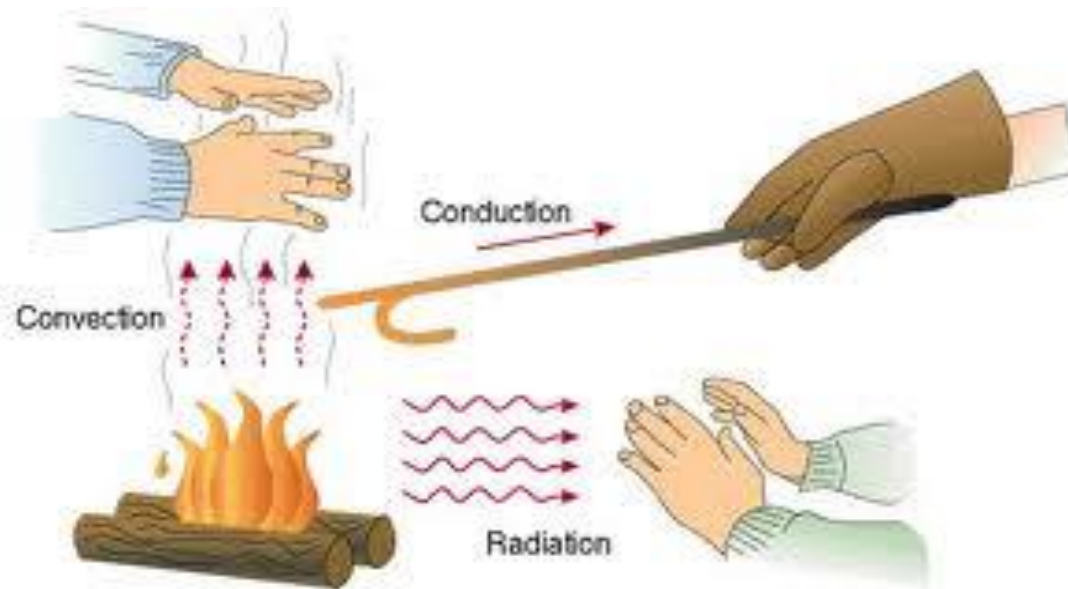


# Heat Transfer



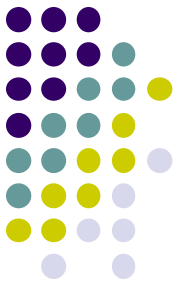
# Heat Transfer

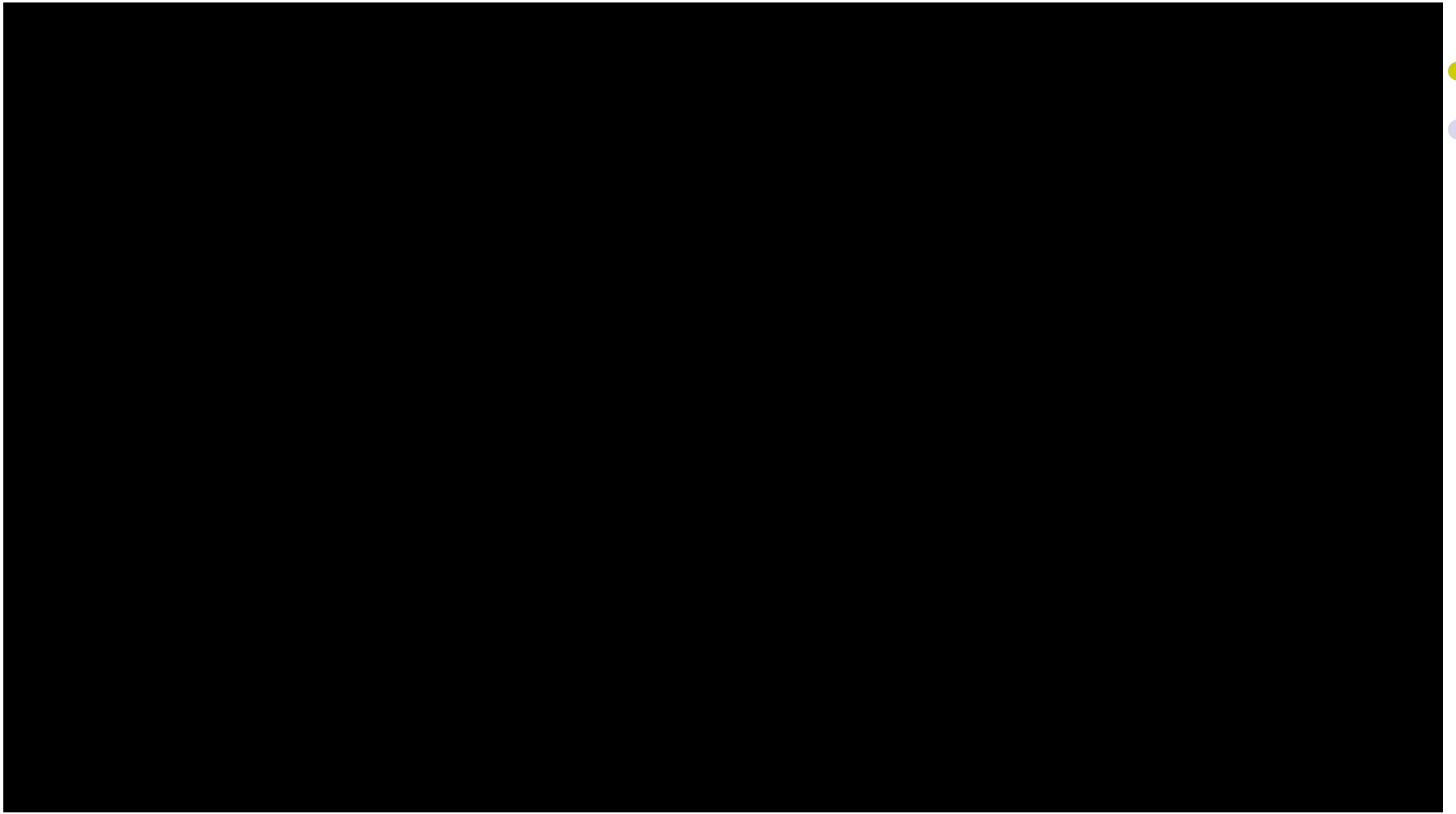
- The movement of thermal energy from a hot to cold substance.
- There are 3 types of heat transfer:



# 1. Conduction

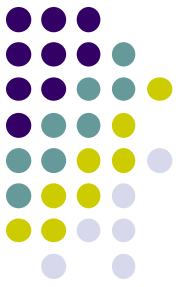
- The transfer of heat through direct contact.
  - Metals conduct heat well.
    - For example, the handle of an iron skillet will become hot when the pan is held over a flame because the iron conducts the heat through the pan to the handle.

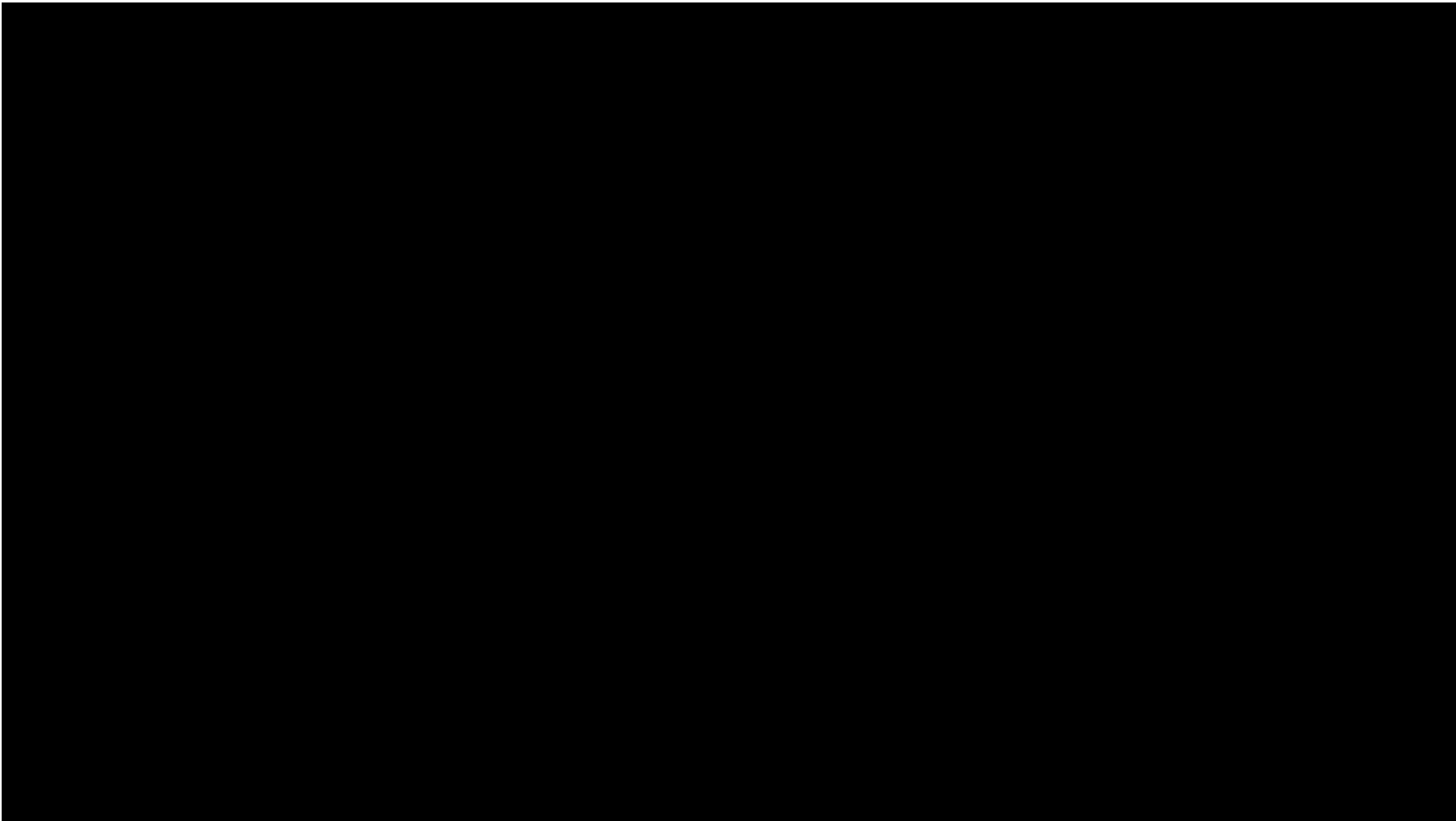




# 2. Convection

- The transfer of heat through a gas or liquid in a current.
  - Boiling a pot of water is an example of convection.
  - The heat rises while the cool liquid sinks. This forms a current in the liquid.

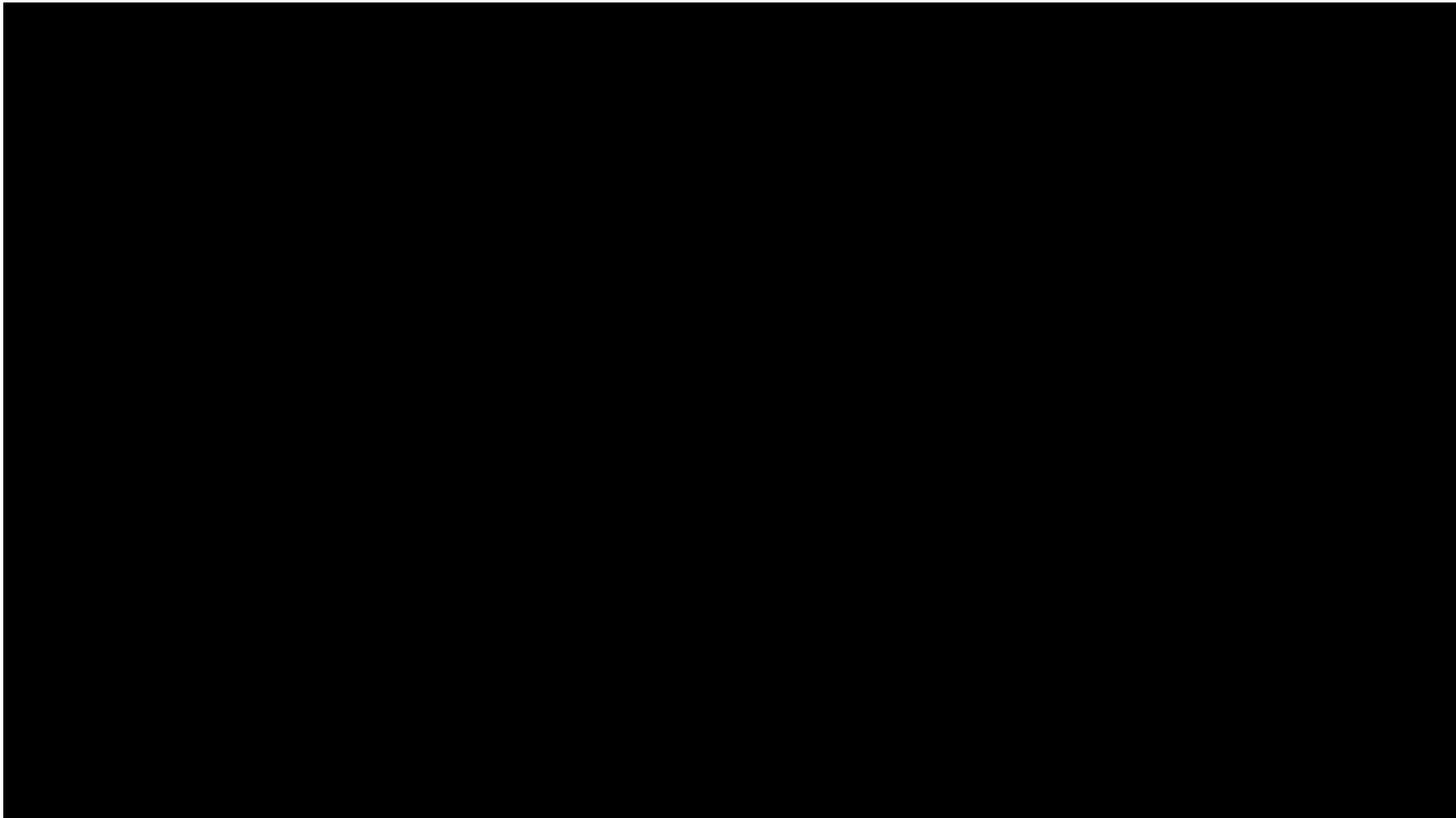




# 3. Radiation

- The transfer of heat without direct contact (radiation can travel through space or a vacuum).
  - The sun transfers heat 93 million miles to the Earth through empty space.







# Insulator

- An insulator is any material that limits the movement of heat.

