Insulate / Isolate

- **Insulate**
  - To completely cover with a non-conductive object.
  - Line hose insulates the conductor.
  - Rubber gloves insulates worker’s hands.

- **Isolate**
  - An object that is not readily accessible unless special means are used.
  - Bucket truck isolates worker from earth & truck.
Insulate and Isolate

The primary purpose of INSULATE and ISOLATE is to guard workers from any two simultaneous points of contacts with energized and/or any grounded conductors (difference of potential).

This includes; wires, poles, cross arms, equipment or anything that is at a different potential. (Second point of contact.)
Rubber gloves - insulate your hands from the energized line you are working on or near.

Rubber sleeves – insulate your arms from energized lines and from second points of contact (different potentials).
Insulate

Rubber gloves
Rubber sleeves
Blankets
Hoods

Insulate the
worker
energized
components
Isolate

hot sticks

Baker board

Bucket truck
Hot arm
Insulated bucket - isolates lineman from the truck/earth by holding them in clear, as opposed to working energized lines while standing on the ground.

Insulated platforms – Isolates lineman from the pole/ground by holding them in the clear.
Isolate

- Hot arms – Isolates conductor from the structure by holding it in the clear.

- Hot sticks – Isolates lineman from the energized conductor by holding it in the clear.
Used together

The gloves and sleeves *insulate* lineman.

The line hose and hoods *insulate* the conductors.

The baker board *isolates* the lineman from the pole.
Used together

The baker board will not protect the lineman from a phase to phase contact.
Used together

Linemen preparing to raise covered conductors.

The line plastic line cover and hoods **insulate** the conductors.

The conductor lift arm (Christmas tree) **isolates** the conductors from the work area.
All hot work shall be done by utilizing the principles of

**I NSULATE**

and

**I SOLATE**