Cooling Towers – One Page Handout

What is a Cooling Tower?

A cooling tower is a heat-rejection device that removes excess heat from industrial processes, power plants, or large buildings by transferring it into the atmosphere, typically through evaporating water.

How It Works (Simplified)

- Hot water enters the cooling tower from machinery or systems.
- The water is sprayed over fill material, spreading out for better air contact.
- Fans draw air in – a small portion of water evaporates, carrying away heat.
- Cool water collects at the bottom and is recirculated back into the system.

Main Uses

- Power Generation – cools steam in thermal and nuclear plants.
- Industrial Processes – maintains safe operating temperatures in factories.
- HVAC Systems – provides cooling for large buildings and complexes.
- Water Conservation – reuses water, reducing demand for fresh supplies.

Cooling Tower Diagram (Simplified)

Hot Water In	↑ Fan draws air
[Spray + Fill Material]	Evaporation removes heat
↓ Cool Water Out	

Prepared as a quick reference for meetings and presentations.