Note Taking Guide: Episode 1301 **Name**_____

temperature:

- a measure of the average kinetic energy of the particles in a sample of matter
- does not depend on the amount of matter in the sample
- symbol is T ; unit is c

heat:

- total amount of kinetic energy that flows because of a difference in tempature.
- depends on mass of sample
- symbol is Q ; unit is _____ (1 J = 4.18 J)

Kinetic energy is energy in motion

Potential energy is store

- Potential energy is hiding and cannot be measured.
- Only changes in P.E. can be measured.

specific heat capacity:

- amount of energy required to raise the tempature of 1 gram of substance 1 c
- symbol is c ; unit is _____

mass

$$Q = m \times C \times \Delta t$$

heat — specific heat — change in tempature

When heat (Q) is absorbed by a system, part of it (C) goes into storage as _____ energy and part of it is used to make the molecules move around _____ , raising the _____ (Δt).

Why does sand get hotter in the day and colder at night than the water?

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