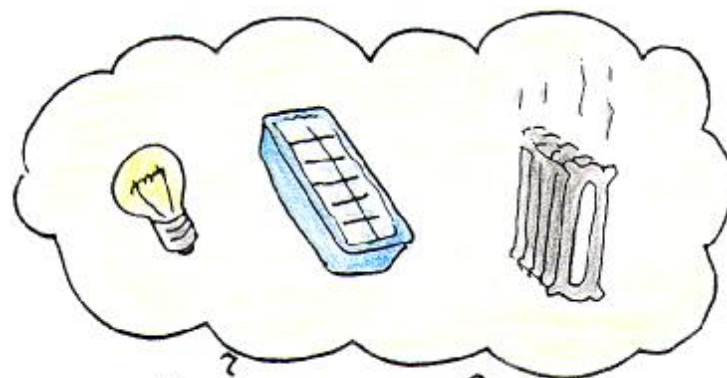


NEXT-TIME QUESTION

Which of these continually emits electromagnetic radiation?



- a) An un-lit flashlight bulb.
- b) A hot steam radiator.
- c) A tray of ice cubes.
- d) None of the above.
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Answer: e, all of the above

All bodies with any temperature whatever continually emit electromagnetic radiation. The frequency of the emitted radiation varies with temperature. The rule is $f \sim T$, where f is the peak frequency of emitted radiation and T is the absolute temperature of the body emitting it. The bodies listed have relatively low temperatures so they emit relatively low frequencies—infrared. If you raise their temperatures sufficiently, their radiation will be visible light.

All bodies in nature, you, me, and all things, both emit and receive electromagnetic radiation continuously. When a body emits more than it receives, its temperature drops. When it receives more than it emits, its temperature increases. At any constant temperature a body emits as much as it receives. Nature is dynamic.



Hewitt
Draw it!

