Name _____key_____ Date _____

HEAT TRANSFER

Using words from the word boxes below, complete the paragraph about heat transfer.

faster	hot	less	solid	fluid
conduction	more	convection	energy	emit
warmer	matter	transfer	absorb	temperature
radiation	contact	cold	vibrate	waves

All _____matter_____ has heat. Heat is a form of _____energy_____ caused by particles in an object that _____vibrate_____. The _____faster_____ the particles of an object vibrate, the _____warmer_____ the object will be. Because particles of an object are always moving, heat _____transfer_____ is always happening. Heat always flows in the same direction: from _____hot_____ to _____cold_____. Heat transfer will stop once two objects reach the same _____temperature_____. This is known as equilibrium.

There are three key ways that heat transfers. With _____solid_____ objects, heat transfers when the objects come into direct _____contact_____ with other things. This is known as _____conduction_____. Liquids and gases are different. Because these two states of matter flow, or are _____fluid_____, heat transfer happens when warmer, _____less_____ dense particles rise and cooler, _____more_____ dense particles sink. This ongoing process is known as a _____convection_____ current. Heat can also be transferred through space (distance) in the form of _____waves_____. This process is known as _____radiation_____. All objects give off, or _____emit_____, some heat. All objects also take in, or _____absorb_____, heat.