

Quiz-Method Of Heat Transfer

Is it conduction, convection, or radiation? This 10 question quiz gives straightforward examples and illustrations that you can also review and teach with.

Have students number from 1-10 on a sheet of paper. (This Quiz is also available as a Student Handout as well as on PowerPoint).

Go through these 10 questions. The answer to each will be conduction, convection, or radiation.

1. During the summer it's cooler in the basement of your home than the upstairs. (*conv.*)
2. You sit in front of a fireplace and feel the warmth coming from it. (*rad.*)
3. Your feet burn when you walk barefoot on a black road on a hot summer day. (*cond.*)
4. The reason why the black top is hot in the first place. (*rad.*)
5. The handle of metal spatula gets hot while sitting in a hot skillet. (*cond.*)
6. Eric the cat heats himself on a cold winter day by sitting on the hood of a warm engine. (*cond.*)
7. The best place to put a heater is at floor level. (*conv.*)
8. The red alcohol in a thermometer rises when the bulb of it is put in boiling water. (*cond.*)
9. Sunlight is absorbed by the Earth after it has made a 100,000,000 mile journey through empty space. (*rad.*)
10. Packing cans of soda in a cooler full of ice will cause them to become very cold. (*cond.*)

BONUS- *explain how all 3 methods are involved in the following example:*

After turning on a lamp you put your hand over the bulb and feel heat.

(Radiation: Heat moves from the filament to the glass bulb, and onward.

Conduction: Air molecules that touch the hot glass bulb now heat.

Convection: That hot air now expands and rises.)

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PowerPoint- lead your students through the lesson click-by-click

3. Your feet burn when you walk barefoot on a black road on a hot summer day.

Conduction

Convection

Radiation




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6. Eric the cat heats himself on a cold winter day by sitting on the hood of a warm engine.

Conduction

Convection


Radiation



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BONUS! -explain how all 3 methods are involved in the following example:

After turning on a lamp you put your hand over the bulb and feel heat.












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Student Handout


Answer Key On PowerPoint


Quiz: Heat Transfer

Write conduction, convection, or radiation on each blank.

- During the summer it's cooler in the basement of your home than the upstairs. 
- You sit in front of a fireplace and feel the warmth coming from it. 
- Your feet burn when you walk barefoot on a black road on a hot summer day. 
- The reason why the black top is hot in the first place. 
- The handle of metal spatula gets hot while sitting in a hot skillet. 
- Eric the cat heats himself on a cold winter day by sitting on the hood of a warm engine. 
- The best place to put a heater is at floor level. 
- The red-liquid in a thermometer rises when the bulb of it is put in boiling water. 
- Sunlight is absorbed by the Earth after it has made a 100,000,000 mile journey through empty space. 

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10. _____ Pecking cans of soda in a cooler full of ice will cause them to become very cold. 

*BONUS! -explain how all 3 methods are involved in the following example: After turning on a lamp you put your hand over the bulb and feel heat. 

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BONUS! -explain how all 3 methods are involved in the following example:

After turning on a lamp you put your hand over the bulb and feel heat.

Radiation: Heat moves from the filament to the glass bulb, and onward.
Conduction: Air molecules that touch the hot glass bulb now heat.
Convection: That hot air now expands and rises.



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