

Active Learning Activity

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Course: Heat and Mass Transfer

Topic: Conduction (and thermal conductivity)

Activity

1. Students will be presented with the situation on the next slide and asked the questions one at a time.
2. Students will work in groups to come up with answers to the questions.
3. After reviewing the heat transfer concepts (temperature, rate of heat transfer, thermal conductivity), students will be given approximate values for the temperatures and thermal conductivities to calculate the rates of heat transfer.

Time Limit: approximately 15 minutes

The Park Bench Problem

Consider 2 park benches during the middle of winter:



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1. Are they at the same temperature?
2. Why does one feel colder than the other?