## Lab: Popcorn Experiment

Conduction, Convection, Radiation



Time First Kernel Time Last Kernel **Total Time** (from start time to

\*\*\*For each station, follow the cooking directions on the lab table.

#### Station I - Microwave popcorn

Start Time

Observe what happens as the popcorn is popped and fill out the chart below.

Microwave Popcorn		Popped	Popped	last kernel popped)
•	0:00			
	is heat reaching	the kernels?	1	
Wha	t type of heat tra	ansfer is this? Explain w	hy.	
n the box, draw a sim	ple diagram sho	wing the transfer of ene	ergy. Make sure to la	bel how the heat is transferred.
Station <b>2</b> -	Whinly	Pop		
		is popped and fill out th	ne chart below.	
			Time Last Kernel Popped	Total Time (from start time to last kernel popped)
	as the popcorn	is popped and fill out the Time First Kernel	Time Last Kernel	
Observe what happens Whirly Pop	Start Time  0:00	is popped and fill out the Time First Kernel	Time Last Kernel	
Observe what happens Whirly Pop How is heat reaching t	Start Time  0:00  he kernels?	is popped and fill out the Time First Kernel Popped	Time Last Kernel	
Observe what happens Whirly Pop How is heat reaching t What type of heat tran	Start Time  0:00  he kernels? sfer is this? Expl	is popped and fill out the Time First Kernel Popped and Time First Kernel Popped ain why.	Time Last Kernel Popped	

### Station 3 - Air popper

Observe what happens as the popcorn is popped and fill out the chart below.

	Start Time	Time First Kernel Popped	Time Last Kernel Popped	<b>Total Time</b> (from start time to last kernel popped)	
Air Popper	0:00				
low do the ker	nels heat?			1	J
Vhat type of he	eat transfer is this	? Explain why.			
n the box, dra	w a simple diagrai	m showing the transfe	r of energy. Make su	ure to label how the heat is trans	sferred.

# Station 4 - Energy Transfer Examples Directions - Identify each example as conduction, convection or radiation. Definitions are on lab tables.

1	13
2	14
3	15
4	16
5	17
6	18
7	19
8	20
9	21
10	22
	23
12	24
11 12	

#### Questions:

Which station had the popcorn START popping faster?	
Which station had the popcorn FINISH popping faster?	
Which type of heat transfer seems to be faster?	