MRSEC

Interdisciplinary Education Group

Liquid Crystal Thermal Sheets

Directions:
You have been given four liquid crystal sheets, labeled A through D. Each sheet is made of a different material that changes color at a different range of temperatures. Your challenge is to determine the temperature range of each sheet.

1) Touch each LC sheet with your fingers. What happens? Write you answers in the table below.

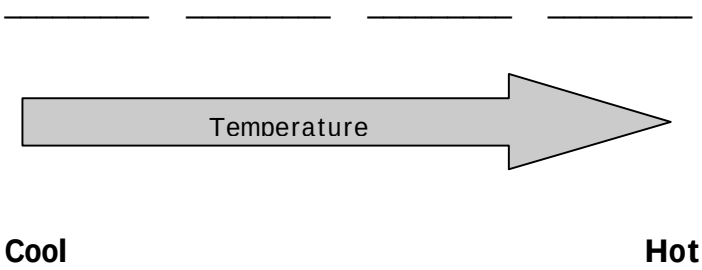
2) Warm your hands with the hand warmer. Touch each LC sheet and record your observations in the table.

3) If there is a sheet that you could not get to change color, do you think that it is broken? If it is not broken, what might you do to change its color?

LC Sheet	A	B	C	D
Normal Hands				
Warm Hands				

4) What color corresponds to warmer temperatures? What color corresponds to colder temperatures? Can the same temperature (e.g. your hand) produce a different color on different sheets? If yes, why do you think this might be? If not, why not?

5) Order the LC sheets (A-D) on the scale below based on the temperature range they respond to.



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