



COOLING A HOUSE

ENERGY LESSON

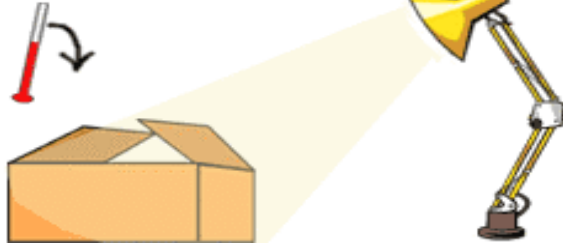
JUSTIN TAYLOR

Time Frame:	Standards:
30 – 60 minutes 3 rd Grade	3.S.1.2.1 Make observations, collect data and evaluate it. 3.S.1.2.2 Replicate and/or use models 3.S.1.3.1 Measure changes that occur 3.S.1.6.3 Use appropriate tools and techniques and display data. 3.S.1.6.5 Make simple predictions. 3.S.1.6.7 Communicate the results of tests to others 3.S.1.8.1 Read and give multi-step instructions
Objectives:	
SWBAT to change the temperature by adding an object to the model. Students will experiment with trying to find the best fit for changing the temperature.	
Background Information:	
Everyone one lives in some kind of structure, whether it is a house, apartment, or some other living corridor. Solar energy comes into our house in many different ways, through the walls, roof, or windows. By adding better insulation in the walls and roof we can have a more efficient house. This can also be achieved with better windows.	
Materials:	
<ul style="list-style-type: none">• Small boxes• Lamp• 2 Thermometers• Various things to block the light. For example. Plants, towels, blankets, tinted glass, others.	

Procedure:

1. Mount the lamp and the box on a table.

Place inside the box



2. Measure the temperature inside the box
3. Use different object to block the light.

Place inside the box



4. Measure the temperature inside the box.
5. Have students records and test different objects blocking the light.

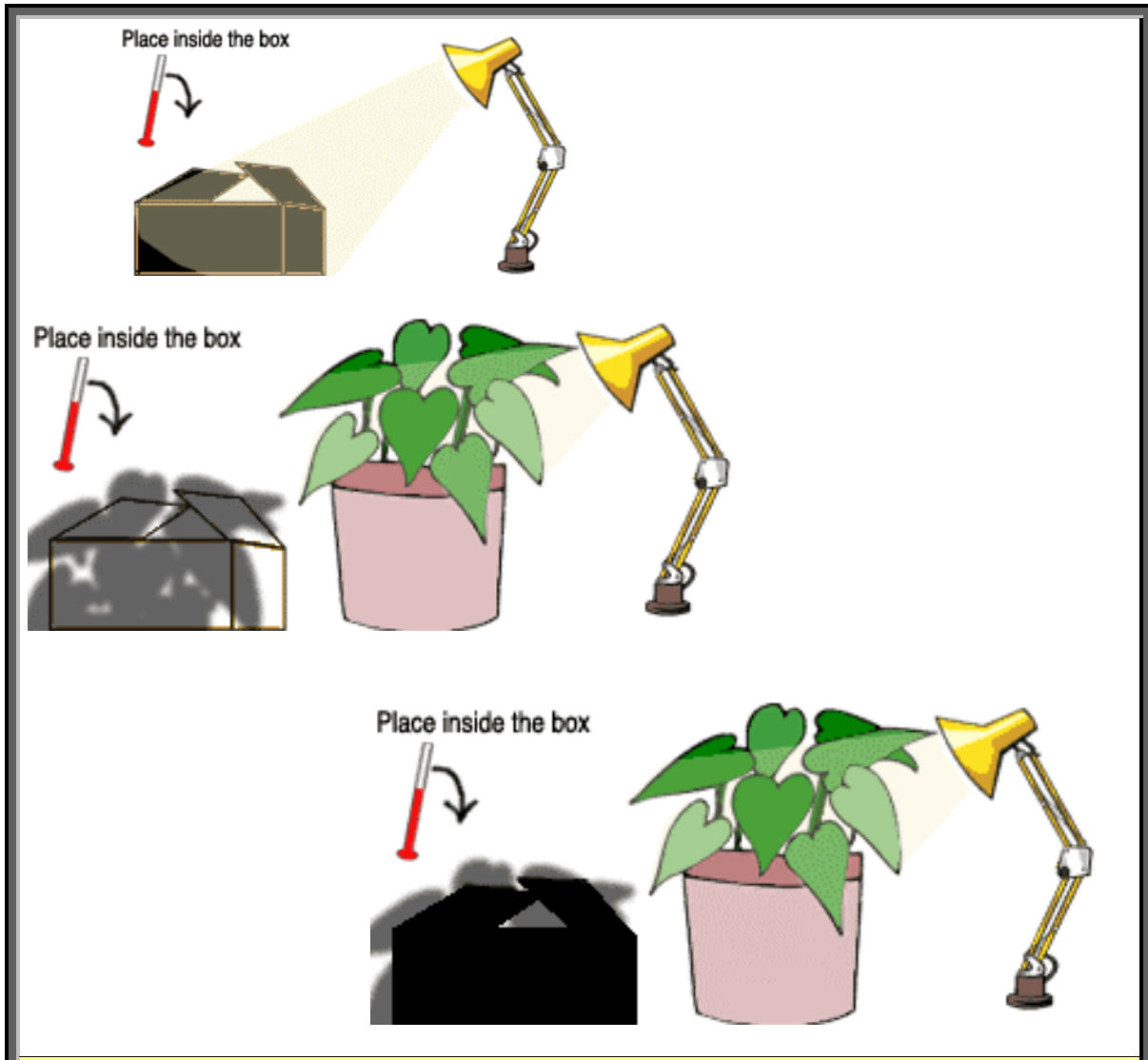
Place inside the box



6. Have the students' think of different objects that could possibly change the temperature inside the box. You want the student to be creative in their decisions. Have the students try to explain their choices that they made.

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Assessment:

Collect the Table and monitor to see if the students are able to correctly read a thermometer and find if shading a house will make a house truly cooler.



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Additional Content:

Table for collecting data.



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Cooling Down a House

Name: _____

	Temp. after 1 minute	Temp. after 2 minutes	Temp. after 3 minutes	Temp. after 4 minutes
Regular Box and Light				
Box, Light, and Plant				
White box and Light				
White box, Plant, Light				
Black Box and Light				
Black Box Plant, and Light				



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References:

Information for this lesson came from Energy Quest and their website is
<http://www.energyquest.ca.gov/projects/cool-house.html>