

3.1a TESTING THE HEATING AND COOLING RATES OF SOIL AND WATER

Directions Answer the questions and then complete Table 1.

1 How will you make certain that your investigation of the heating and cooling of soil and water will be a fair test? Record all the things that you will need to keep the same in both setups. (You may draw a picture here and label it.)

2 What do you think will happen to the temperature of the soil and the water when you turn on the lamp? What will happen to their temperatures when you turn off the lamp? Why do you think this?

STUDENT SHEET

Table 1 Heating and Cooling Data

Heating			Cooling		
Time (minutes)	Soil Temperature (°C)	Water Temperature (°C)	Time (minutes)	Soil Temperature (°C)	Water Temperature (°C)
0:00			10:00		
1:00			11:00		
2:00			12:00		
3:00			13:00		
4:00			14:00		
5:00			15:00		
6:00			16:00		
7:00			17:00		
8:00			18:00		
9:00			19:00		
10:00			20:00		
Total temperature change			Total temperature change		

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