

Student Workbook for:
Lab 02: Earth-Sun Relationships & Earth's Energy Budget
By Andrew Perkins

Exercise 1: Earth-Sun Relationships and Earth's Energy Budget

Question 4. a.

Table 2.1. Actual amount of radiation received at Earth's surface on the equinoxes and solstices at three locations.

Month	Equator	Tropic of Cancer	North Pole
March			
June			
September			
December			

Exercise 1: Earth-Sun Relationships and Earth's Energy Budget

Question 4.b.

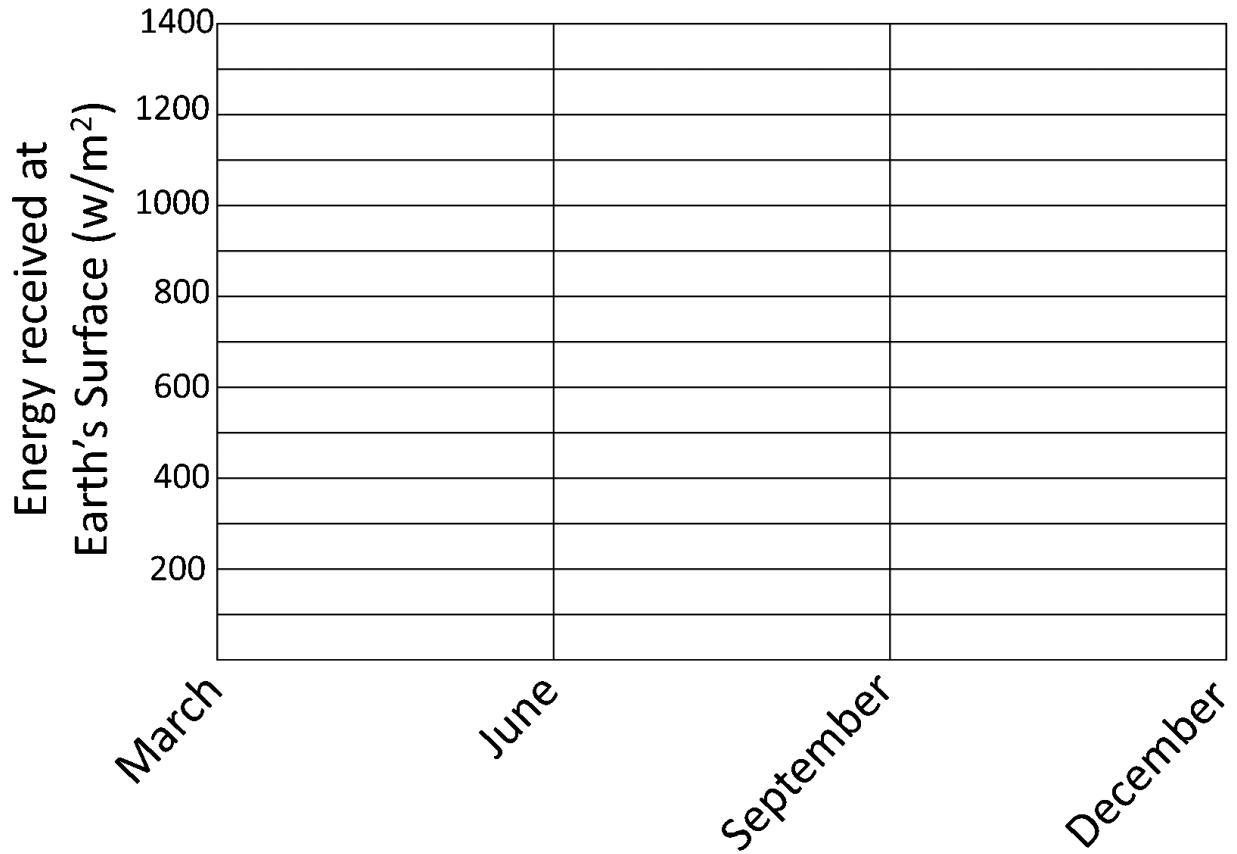
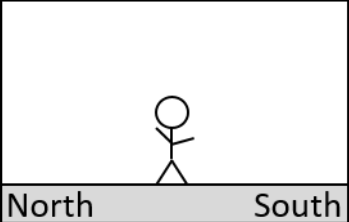
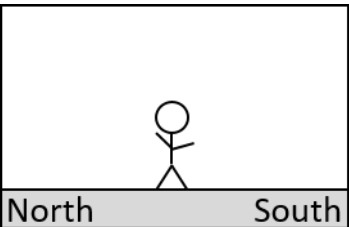
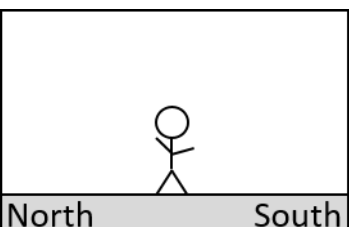


Figure 2.8. Change in energy received at Earth's surface through time. *Source: A. Perkins, CC BY-NC-SA 4.0*

Exercise 2: The March of the Seasons and the Angle of the Noon Sun

Question 7.

Diagram	Angle of Noon Sun	Relative Intensity of the Sun Angle
On Oct. 3 rd , if you are located at 0° latitude:		
		
On April 2 nd , if you are located at 61° North latitude:		
		
On Dec. 9 th , if you are located at 85° North latitude:		
		

Exercise 2: The March of the Seasons and the Angle of the Noon Sun

Question 8.

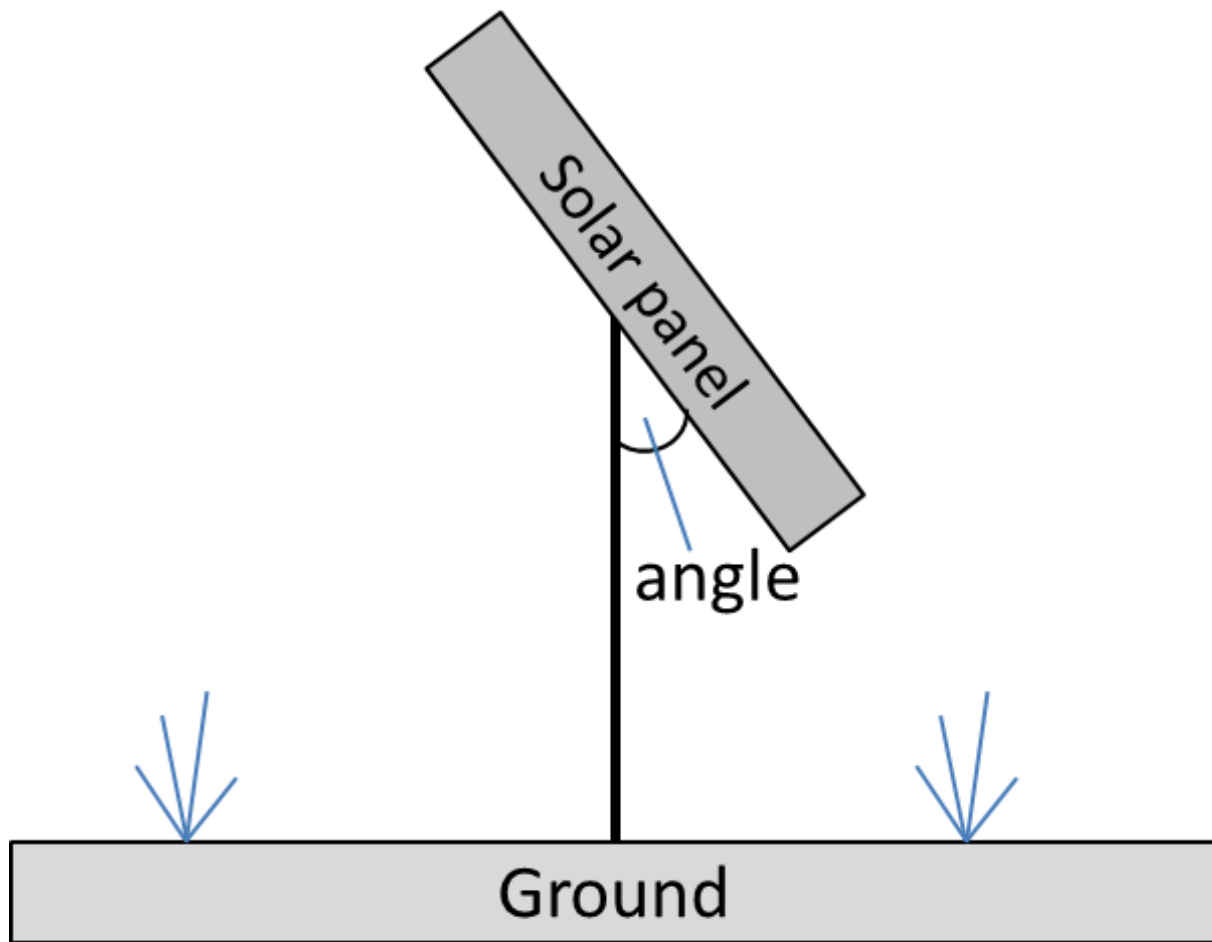


Figure 2.9. Schematic of solar panel. *Source: A. Perkins, CC BY-NC-SA 4.0*

Exercise 4: Lapse Rates

Exercise 4: Temperature Gradients Graph

