

Geography Alive: Stage 2 Geography (Topic 1: Places are similar and different)

| Lesson 2: Factors affecting climate | | |
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| <p>Content focus:</p> <p>In this lesson, students commence an investigation of the factors that determine the climate of places. In doing so, we focus the effects of latitude and the relationship between the revolution of the earth around the sun and the occurrence of the four seasons.</p> | | <p>Resources:</p> <ul style="list-style-type: none"> • Resource Sheet 1: Factors affecting climate • Worksheet 1: Factors affecting weather and climate |
| <p>Key inquiry questions:</p> <ul style="list-style-type: none"> • What is the relationship between latitude and temperature? • What causes the seasonal variations throughout the year? | <p>Outcomes:</p> <p><i>A student:</i></p> <ul style="list-style-type: none"> • describes, in general terms, the relationship between latitude and temperature • explains, in simple terms, how the revolution of the earth around the sun accounts for the seasons and the length of daylight hours experienced at a place. | <p>Lesson sequence:</p> <ul style="list-style-type: none"> • Step 1: Explain to students that there are a number of factors that determine the weather and climate experienced by a place. In the following stages of the lesson (and lesson 3) contextualise those that are relevant to the place in which the students live. • Step 2: Introduce students to concept of latitude in a general (non-technical) way. This can be done using a globe of the world. Locate the equator and show students that effectively divides the world into two – the Northern Hemisphere and the Southern Hemisphere. Explain that places near the equator are generally very hot. Show the location of the North and South poles to the students. Ask the students what they know about the climate found at the North and South poles. Hopefully they will suggest that it is very cold. For the more able students make the point that that lines of latitude circle the earth parallel to the Equator and that all places are located either on, or north or south, of the Equator (0°Latitude). Places at higher latitudes are located closer to the North or South Poles (90°Latitude N & S) than places at lower latitudes. The latter are closer to the Equator. • Step 3: Draw your students’ attention to Figure 1 on Resource Sheet 1 and explain that places at higher latitudes experience less intense solar radiation than those closer to the Equator. In other words, the same amount of energy from the sun is spread over a much larger area in higher latitudes than at the Equator. Therefore, temperatures generally decline as you move from lower latitudes to higher latitudes. You might also like to use a torch and a globe of the world to replicate the information featured in Figure 1 and to help your students to grasp this concept. To reinforce the point discuss which would be the hottest and coolest Australian capital cities, Darwin or Hobart. Point out that Sydney lies between these two capitals (in terms of latitude). What might this suggest about the climate of Sydney? • Step 4: Ask students to complete Questions 1 & 2 on Worksheet 1. |