

1. Use the learning object, *Cyclones*, to count the number of cyclones in each temperature band. Add totals to Table 1.

SEA SURFACE TEMPERATURE	NUMBER OF CYCLONES ORIGINATING IN EACH TIME PERIOD					
	1985	1990	1995	2000	2005	2010
26 °C or below						
27 °C						
28 °C						
29 °C						
30 °C or above						

Table 1: sea surface temperature and frequency of cyclones

2. What observations can you make about sea surface temperature and cyclone formation?

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3. Now use the learning object to count the number of cyclones in each latitude band. Add totals to Table 2. Move your mouse over each cyclone to get precise coordinates.

LATITUDE (DEGREES SOUTH)	NUMBER OF CYCLONES ORIGINATING IN EACH TIME PERIOD					
	1985	1990	1995	2000	2005	2010
0 (Equator)-5						
5-10						
10-15						
15-20						
20-25						

Table 2: latitude and frequency of cyclones

4. What observations can you make about latitude and cyclone formation?

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5. Use your answers to questions 2 and 4, and the fact sheet, *How do cyclones work?*, to describe environmental conditions required for a cyclone to form.

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6. In 1985, cyclones Frank and Gertie began over land. Predict what climate conditions may have been present for this to occur.

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7. Is there any pattern between where a cyclone originates and its maximum severity (roll over points to learn more about individual cyclones)?

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8. Does the map sequence show any pattern of change in sea surface temperatures off the coast of Western Australia?

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9. Scientists have predicted a rise in sea surface temperatures. What impact might this have on future cyclone frequency and severity?

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10. What other information might you need to be more confident in your answer to question 9?

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