

## Part 4.2: Seasonal Pattern

With the seasonal pattern we are looking at what is happening in each month or each quarter. You want to be commenting on any highs or lows and also the change between them. For higher grades you should be giving possible reasons and link to your purpose and also think about the relative size of the season pattern to the overall variation.

For each of the graphs write a comment about the long term trend.

The first two have been done for you.

<p><b>1. Sea Ice</b></p> <p>Made with NZGrapher</p>	<p>The largest amount of sea ice at the North Pole normally occurs during February and March when the amount of sea ice is approximately 4 million square kilometres above the long term trend. Between April and August there is a consistent drop from month to month as temperatures are rising. The smallest amount of sea ice regularly occurs in September where the amount of sea ice is approximately 5 million square kilometres below the long term trend. After this the temperatures start cooling down again increasing the amount of ice on a month to month basis until it returns to its peak in February and March.</p>
<p><b>2. Births and Deaths</b></p> <p>Made with NZGrapher</p>	<p>The seasonal pattern for male live births is not very consistent. On average the highest number of births occurs in the first quarter (January to March) where there are approximately 150 more births than the long term trend. The lowest on average occurs in the fourth quarter (October to December) where there are approximately 200 births less than the long term trend, however there are many years that it does not follow this pattern.</p>