

Assignment 4

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Question 1: *Briefly comment on how your cooking recipes would need to be altered if you were in a deep mine shaft.*

Question 2: *Some of the air entering the North West Territories during the summer comes from the Arctic Ocean. Briefly discuss the temperature and moisture attributes of this air in comparison with air that enters this region from the Pacific Ocean.*

The air coming from Arctic Ocean is cold and its relative humidity is close to a hundred percent. The air from Pacific Ocean is hot and therefore it is more difficult for that air to reach its maximum humidity: the air is drier.

Question 3: *Explain the wintertime expression clear moon, frost soon*

Clear moon means no clouds, and no clouds means nothing to keep the Earth's heat. Therefore the temperature at the surface of the Earth is colder.

Question 4: *Explain why surface based observations typically underestimate the amount of high level cloud.*

From the surface of the Earth, we can only see the first layer of clouds and make an estimation with their color. The problem is that there might be other layer over the first that we cannot see. That's why surface based observations typically underestimate the amount of high level cloud.

Question 5: *Make a simple sketch of the clouds you see on a day of your choosing. Explain what types of clouds these are and comment on any unusual features. Be sure to include the date and time of your observation.*



Figure 1: Stratocumulus at the Montreal Old Port, in the summer

Stratocumulus are cumulus that can be found over water (ocean, lake, river, etc...). You can find other types of clouds, with pictures here: <http://perso.wanadoo.fr/fabrice.lhuillery/typenuages.html>