Rose

**IV. Climate**

**General purpose:** To be prepared for the types of weather one encounters on Vancouver Island

**Objective:** Identifies weather conditions for each of the 4 seasons on Vancouver Island and recalls average seasonal temperatures and precipitation

i. Content structure: concept- Knowledge/Comprehension

ii. Identify categories:

A. types of weather conditions that occur on Vancouver Island

B. the twelve month calendar is divided into four different seasons

C. types of expected weather conditions for summer, fall/autumn, winter, & spring

iii. Define categories:

A. types of weather conditions that occur on Vancouver Island

1. Rain

2. Snow

3. Sunshine

4. Wind

B. the twelve month calendar is divided into four different seasons

1. summer

a. months include: July, August, September

2. fall/autumn

a. months include:, October, November, December

3. winter

a. months include: January, February, March

4. spring

a. months include: April, May, June

C. types of expected weather conditions for summer, fall/autumn, winter, & spring

Winter:

Temperate weather consisting of mostly rain, with the chance of falling snow, which usually melts within a day or two

January February March

Average temperature °C: 7.0 10.6 8.6

Average precipitation (mm): 94.3 71.7 46.5

Average sunshine (hours): 78 102 150

Spring:

Warm and pleasant with rain and some sunshine

April May June

Average temperature °C: 13.1 15.9 17.9

Average precipitation (mm): 28.5 25.8 20.7

Average sunshine (hours): 205 267 271

Summer:

Warm and pleasant with mostly sunny and some rainy days with temperatures ranging up to 28 °C.

July August September

Average temperature °C: 19.8 20.1 18.5

Average precipitation (mm): 14.0 19.7 27.4

Average sunshine (hours): 331 303 222

Autumn:

Warm and pleasant with rain and some sunshine

October November December

Average temperature °C: 13.8 9.4 7.1

Average precipitation (mm): 51.2 98.9 108.9  
Average sunshine (hours): 148 81 65

**Initial Presentation:** Students will research weather charts, on-line, which indicate average temperatures, precipitation and rainfall per month for the southern Vancouver Island region (Victoria). Students will research, and name the attributes for each of the seasons in the Victoria area.

**Generative Strategy:** Students will indentify the four seasons explaining their attributes, average temperatures, average precipitation, and average sunshine hours.

**Pre-test Items:**

True or False:

\_\_\_ On the southern tip of Vancouver Island there are two seasons

\_\_\_ It rains all the time on Vancouver Island

\_\_\_ In the summer the temperatures will reach up to 30°C

\_\_\_ It does not snow on Vancouver Island

\_\_\_ The snow that falls stays on the ground all winter on Vancouver Island

\_\_\_ The sun shines more in the summer than in the winter

**Post-test Items:**

Name the seasons experienced on Vancouver Island

Describe the weather conditions for each season

Identify the average temperature for one of the months in each season (ie. Winter \_\_\_°C, Summer \_\_\_ °C)

Identify the average amount of precipitation for one of the months of each season (ie. Winter \_\_\_ mm, Summer \_\_\_ mm)

References:

<http://www.hellobc.com/en-CA/AboutBC/ClimateWeather/BritishColumbia.htm>

http://www.victoria-bc-canada-guide.com/victoria-bc-weather.html

### Victoria BC Weather Through the Seasons

This chart shows you the types of weather Victoria has throughout the year &

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Year** |
| **Average daily maximum** | °C | 7.0 | 8.6 | 10.6 | 13.1 | 15.9 | 17.9 | 19.8 | 20.1 | 18.5 | 13.8 | 9.4 | 7.1 | 13.5 |
| **Average daily minimum** | °C | 3.0 | 3.7 | 4.5 | 6.0 | 8.2 | 10.0 | 11.3 | 11.7 | 10.7 | 7.9 | 5.0 | 3.2 | 7.1 |
|  | | | | | | | | | | | | | |  |
| **Average precipitation** | mm | 94.3 | 71.7 | 46.5 | 28.5 | 25.8 | 20.7 | 14.0 | 19.7 | 27.4 | 51.2 | 98.9 | 108.9 | 607.6 |
| **Average total snow** | cm | 9.7 | 3.5 | 1.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.1 | 7.8 | 26.3 |
| **Average Sunshine** | h | 78 | 102 | 150 | 205 | 267 | 271 | 331 | 303 | 222 | 148 | 81 | 65 | 2223 |
|  | | | | | | | | | | | | | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| http://www.climate.weatheroffice.gc.ca/climate\_normals/results\_e.html?Province=ALL&StationName=victoria&SearchType=BeginsWith&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=118&  [VICTORIA INT'L A \*](http://www.climate.weatheroffice.gc.ca/climate_normals/station_metadata_e.html?Province=ALL&StationName=victoria&SearchType=BeginsWith&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=118&) BRITISH COLUMBIA | | | | | |
| [**Latitude**](http://www.climate.weatheroffice.gc.ca/climate_normals/%20../Glossary-popup_e.html#latlong)**:** | 48°38'49.000" N | [**Longitude**](http://www.climate.weatheroffice.gc.ca/climate_normals/%20../Glossary-popup_e.html#latlong)**:** | 123°25'33.000" W | [**Elevation**](http://www.climate.weatheroffice.gc.ca/climate_normals/%20../Glossary-popup_e.html#Elevation)**:** | 19.20 m |
| [**Climate ID**](http://www.climate.weatheroffice.gc.ca/climate_normals/%20../Glossary-popup_e.html#climateID)**:** | 1018620 | [**WMO ID**](http://www.climate.weatheroffice.gc.ca/climate_normals/%20../Glossary-popup_e.html#whoID)**:** | 71799 | [**TC ID**](http://www.climate.weatheroffice.gc.ca/climate_normals/%20../Glossary-popup_e.html#tdIc)**:** | YYJ |

**\* This station meets** [**WMO standards**](http://www.climate.weatheroffice.gc.ca/prods_servs/normals_documentation_e.html#wmo) **for temperature and precipitation.**

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Normals from to 

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[January-June](http://www.climate.weatheroffice.gc.ca/climate_normals/results_e.html?Province=ALL&StationName=victoria&SearchType=BeginsWith&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=118&start=1&end=6&autofwd=0) [January-December+Year](http://www.climate.weatheroffice.gc.ca/climate_normals/results_e.html?Province=ALL&StationName=victoria&SearchType=BeginsWith&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=118&start=1&end=13&autofwd=0) [July-December](http://www.climate.weatheroffice.gc.ca/climate_normals/results_e.html?Province=ALL&StationName=victoria&SearchType=BeginsWith&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=118&start=7&end=12&autofwd=0)

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| [**Temperature**](http://www.climate.weatheroffice.gc.ca/prods_servs/normals_documentation_e.html#1)**:** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **Year** | **Code** |
| Daily Average (°C) | 3.8 | 4.9 | 6.4 | 8.8 | 11.8 | 14.4 | 16.4 | 16.4 | 14 | 9.8 | 6.1 | 4 | 9.7 | A |
| Standard Deviation | 1.6 | 1.5 | 1.1 | 1 | 1.1 | 0.9 | 0.7 | 0.9 | 1 | 0.7 | 1.5 | 1.5 | 0.6 | A |
| Daily Maximum (°C) | 6.9 | 8.4 | 10.5 | 13.4 | 16.6 | 19.3 | 21.9 | 22 | 19.4 | 14.2 | 9.5 | 6.9 | 14.1 | A |
| Daily Minimum (°C) | 0.7 | 1.4 | 2.3 | 4.1 | 6.9 | 9.3 | 10.8 | 10.8 | 8.4 | 5.3 | 2.7 | 1 | 5.3 | A |
| Extreme Maximum (°C) | 15.4 | 18.3 | 21.4 | 26.3 | 31.5 | 33.3 | **36.1** | 34.4 | 31.1 | 27.6 | 18.3 | 16.1 |  |  |
| Date (yyyy/dd) | 1984/04 | 1963/10 | 1994/28 | 1998/30 | 1983/28 | 1942/30 | **1941/16** | 1960/09 | 1944/05+ | 1987/01 | 1975/03 | 1940/21+ |  |  |
| Extreme Minimum (°C) | **-15.6** | -15 | -10 | -3.9 | -1.1 | 2.1 | 4.1 | 4.4 | -1.1 | -4.4 | -13.3 | -14.4 |  |  |
| Date (yyyy/dd) | **1950/28** | 1950/01 | 1989/03 | 1956/05 | 1954/01 | 1991/03 | 1979/02 | 1973/18 | 1972/27 | 1956/28 | 1955/14+ | 1964/16+ |  |  |
| [**Precipitation**](http://www.climate.weatheroffice.gc.ca/prods_servs/normals_documentation_e.html#2)**:** | | | | | | | | | | | | | | |
| Rainfall (mm) | 121.8 | 98.8 | 75.8 | 44.5 | 36.5 | 32 | 19.5 | 23.9 | 30.4 | 75.6 | 144.4 | 138.3 | 841.4 | A |
| Snowfall (cm) | 15.2 | 9 | 2.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 3.3 | 13.8 | 43.8 | A |
| Precipitation (mm) | 136.6 | 107.8 | 78 | 44.5 | 36.5 | 32 | 19.5 | 23.9 | 30.4 | 75.7 | 147.2 | 151.2 | 883.3 | A |
| Average Snow Depth (cm) | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | A |
| Median Snow Depth (cm) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | A |
| Snow Depth at Month-end (cm) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | A |
| Extreme Daily Rainfall (mm) | **92.8** | 55.9 | 53.6 | 53.2 | 38.1 | 40.9 | 50 | 41.7 | 45.2 | 57.4 | 68.3 | 72.9 |  |  |
| Date (yyyy/dd) | **1986/18** | 1949/16 | 1948/21 | 1991/03 | 1948/27 | 1955/22 | 1993/20 | 1995/06 | 1983/01 | 1963/21 | 1955/02 | 1972/25 |  |  |
| Extreme Daily Snowfall (cm) | 29.2 | 26 | 21.3 | 5.1 | 0 | 0 | 0 | 0 | 0 | 4.6 | 16.4 | **64.5** |  |  |
| Date (yyyy/dd) | 1971/13 | 1989/17 | 1960/03 | 1955/14 | 1941/01+ | 1941/01+ | 1940/01+ | 1940/01+ | 1940/01+ | 1991/28 | 1985/26 | **1996/29** |  |  |
| Extreme Daily Precipitation (mm) | **92.8** | 55.9 | 54.1 | 53.2 | 38.1 | 40.9 | 50 | 41.7 | 45.2 | 57.4 | 68.3 | 81.1 |  |  |
| Date (yyyy/dd) | **1986/18** | 1949/16 | 1948/21 | 1991/03 | 1948/27 | 1955/22 | 1993/20 | 1995/06 | 1983/01 | 1963/21 | 1955/02 | 1996/29 |  |  |