# Grade 9 Geography - Unit 1 Lesson 4 <br> Latitudes and Longitudes 



The equator is located at $\qquad$ latitude. The equator is located exactly between the North Pole (NP) and the South Pole (SP). The equator the world into the Northern Hemisphere and the Southern Hemisphere.


Lines of latitude are numbered from $0^{\circ}$ at the $\qquad$ to $90^{\circ}$ at the
$\qquad$ and $\qquad$ Poles.

Each line of latitude, except the equator, must be followed by N or S to show whether it is in the Northern or Southern Hemisphere.



The lines that run down the globe are called
$\qquad$ or Lines of
$\qquad$ .

Each line of longitude runs from the North Pole to the South Pole. The distance along each line is the $\qquad$ —.

SIDE VIEW


Each line of longitude is $\qquad$ a circle because it runs from the poles down one half of the earth only.

Two opposite lines of longitude together make up a full circle. Such circles, like the equator, are called $\qquad$ _.

## Latitudes and Longitudes... 3



There is no real difference between one line of longitude and another.

The line of longitude chosen as $0^{\circ}$ passes through Greenwich, England. It is called the $\qquad$ .


VIEW FROM ABOVE NORTH POLE


VIEW FROM ABOVE NORTH POLE
Going EAST from the Prime Meridian, the lines of longitude are numbered up to $180^{\circ}$. This is the Eastern Hemisphere.

Likewise going WEST from the Prime Meridian, the lines of longitude are also numbered up to $180^{\circ}$. This is the Western Hemisphere.

Except for $0^{\circ}$ and $180^{\circ}$, each line of longitude must be followed by E or W to show whether it is in the Eastern or Western Hemisphere.

## Latitudes and Longitudes... 4



The network of numbered lines of latitude and longitude are called the
$\qquad$ .

The grid makes it easy to locate any place you wish.

Note: Latitude is always given before longitude.

THE EARTH GRID

In this figure, the black square is about 2/5 of the way between the latitudes $15^{\circ} \mathrm{N}$ and $20^{\circ} \mathrm{N}$. The approximate latitude is $\qquad$ .

The black square is about $3 / 5$ of the way between the longitudes of $75^{\circ} \mathrm{E}$ and $80^{\circ} \mathrm{E}$. The approximate longitude is $\qquad$ .

In this figure, note the difference in the scale. The distance between the lines of latitude and longitude is only one degree.


A degree of latitude or longitude can be divided into 60 minutes (Note: minutes here has nothing to do with time). The distance between latitude $44^{\circ} \mathrm{N}$ and $45^{\circ} \mathrm{N}$ is 60 minutes (written 60'). In this figure, the black square is about $1 / 4$ between latitude $44^{\circ} \mathrm{N}$ and $45^{\circ} \mathrm{N}$ or $15^{\prime}$. The latitude of the square is $44^{\circ} 15^{\prime} \mathrm{N}$.

Minutes longitude is calculated the same way.

## Latitudes and Longitudes... 5



Grade 9 Geography - Unit 2 Lesson 3 Latitudes and Longitudes

Various Lats and Longs

| Calgary, Alberta | $51^{\circ} 6^{\prime} \mathrm{N}$ | $114^{\circ} 1^{\prime} \mathrm{W}$ |
| :--- | :---: | :---: |
| Edmonton, Alberta | $53^{\circ} 34^{\prime} \mathrm{N}$ | $113^{\circ} 31^{\prime} \mathrm{W}$ |
| Vancouver. B.C. | $49^{\circ} 11^{\prime} \mathrm{N}$ | $123^{\circ} 10^{\prime} \mathrm{W}$ |
| Victoria, B.C. | $48^{\circ} 25^{\prime} \mathrm{N}$ | $123^{\circ} 19^{\prime} \mathrm{W}$ |
| The Pas, Manitoba | $53^{\circ} 58^{\prime} \mathrm{N}$ | $101^{\circ} 6^{\prime} \mathrm{W}$ |
| Winnipeg, Manitoba | $49^{\circ} 54^{\prime} \mathrm{N}$ | $97^{\circ} 14^{\prime} \mathrm{W}$ |
| Fredericton, N.B. | $45^{\circ} 52^{\prime} \mathrm{N}$ | $66^{\circ} 32^{\prime} \mathrm{W}$ |
| Flin Flon, Manitoba | $54^{\circ} 46^{\prime} \mathrm{N}$ | $101^{\circ} 51^{\prime} \mathrm{W}$ |
| Moncton, N.B. | $46^{\circ} 7{ }^{\prime} \mathrm{N}$ | $64^{\circ} 41^{\prime} \mathrm{W}$ |
| Saint John, N.B. | $45^{\circ} 19^{\prime} \mathrm{N}$ | $65^{\circ} 53^{\prime} \mathrm{W}$ |
| Corner Brook, Nfld | $48^{\circ} 58^{\prime} \mathrm{N}$ | $57^{\circ} 57^{\prime} \mathrm{W}$ |
| Gander, Nfld | $48^{\circ} 57^{\prime} \mathrm{N}$ | $54^{\circ} 34^{\prime} \mathrm{W}$ |
| Goose Bay, Nfld | $53^{\circ} 19^{\prime} \mathrm{N}$ | $60^{\circ} 25^{\prime} \mathrm{W}$ |
| St. John's, Nfld | $47^{\circ} 37^{\prime} \mathrm{N}$ | $52^{\circ} 45^{\prime} \mathrm{W}$ |
| Sydney, NS | $46^{\circ} 10^{\prime} \mathrm{N}$ | $60^{\circ} 3^{\prime} \mathrm{W}$ |
| Truro, NS | $45^{\circ} 22^{\prime} \mathrm{N}$ | $63^{\circ} 16^{\prime} \mathrm{W}$ |
| Kingston, Ontario | $44^{\circ} 16^{\prime} \mathrm{N}$ | $76^{\circ} 30^{\prime} \mathrm{W}$ |
| London, Ontario | $43^{\circ} 2^{\prime} \mathrm{N}$ | $81^{\circ} 9^{\prime} \mathrm{W}$ |
| Ottawa, Ontario | $45^{\circ} 19^{\prime} \mathrm{N}$ | $75^{\circ} 40^{\prime} \mathrm{W}$ |
| Owen Sound, Ontario | $44^{\circ} 34^{\prime} \mathrm{N}$ | $80^{\circ} 55^{\prime} \mathrm{W}$ |
| Sudbury, Ontario | $46^{\circ} 37^{\prime} \mathrm{N}$ | $80^{\circ} 48^{\prime} \mathrm{W}$ |
| Thunder Bay, Ontario | $48^{\circ} 22^{\prime} \mathrm{N}$ | $89^{\circ} 19^{\prime} \mathrm{W}$ |
| Timmins, Ontario | $48^{\circ} 34^{\prime} \mathrm{N}$ | $81^{\circ} 22^{\prime} \mathrm{W}$ |
| Toronto, Ontario | $43^{\circ} 41^{\prime} \mathrm{N}$ | $79^{\circ} 38^{\prime} \mathrm{W}$ |
| Windsor, Ontario | $42^{\circ} 16^{\prime} \mathrm{N}$ | $82^{\circ} 58^{\prime} \mathrm{W}$ |
| Trois Rivieres, Quebec | $46^{\circ} 21^{\prime} \mathrm{N}$ | $72^{\circ} 35^{\prime} \mathrm{W}$ |
| Montreal, Quebec | $45^{\circ} 28^{\prime} \mathrm{N}$ | $73^{\circ} 45^{\prime} \mathrm{W}$ |
| Quebec City, Quebec | $46^{\circ} 48^{\prime} \mathrm{N}$ | $71^{\circ} 23^{\prime} \mathrm{W}$ |
| Rimouski, Quebec | $48^{\circ} 27^{\prime} \mathrm{N}$ | $68^{\circ} 32^{\prime} \mathrm{W}$ |
| Regina, Saskatchewan | $50^{\circ} 26^{\prime} \mathrm{N}$ | $104^{\circ} 40^{\prime} \mathrm{W}$ |
| Charlottetown, P.E.I. | $46^{\circ} 17^{\prime} \mathrm{N}$ | $63^{\circ} 8^{\prime} \mathrm{W}$ |
| Whitehorse, Yukon | $60^{\circ} 43^{\prime} \mathrm{N}$ | $135^{\circ} 4^{\prime} \mathrm{W}$ |

# Grade 9 Geography - Unit 1 Lesson 4 Canadian City Latitudes and Longitudes 

Using a Canadian map, find the Canadian location (Answer Key)

| Latitude and Longitude | Location |
| :---: | :---: |
| $46^{\circ} 17^{\prime} \mathrm{N} 63^{\circ} 8^{\prime} \mathrm{W}$ | Charlottetown, P.E. I. |
| $60^{\circ} 43^{\prime} \mathrm{N} \quad 135^{\circ} 4^{\prime} \mathrm{W}$ | Whitehorse, Yukon |
| $48^{\circ} 22^{\prime} \mathrm{N} \quad 89^{\circ} 19^{\prime} \mathrm{W}$ | Thunder Bay, Ontario |
| $48^{\circ} 27^{\prime} \mathrm{N} 68^{\circ} 32^{\prime} \mathrm{W}$ | Rimouski, Quebec |
| $46^{\circ} 10^{\prime} \mathrm{N} 60^{\circ} 3^{\prime} \mathrm{W}$ | Sydney, Nova Scotia |
| $49^{\circ} 11^{\prime} \mathrm{N} 123^{\circ} 10^{\prime} \mathrm{W}$ | Vancouver, B.C. |
| $45^{\circ} 19^{\prime} \mathrm{N} \quad 75^{\circ} 40^{\prime} \mathrm{W}$ | Ottawa, Ontario |
| $45^{\circ} 52^{\prime} \mathrm{N} \quad 66^{\circ} 32^{\prime} \mathrm{W}$ | Fredericton, N.B. |
| $42^{\circ} 16^{\prime} \mathrm{N} 82^{\circ} 58^{\prime} \mathrm{W}$ | Windsor, Ontario |
| $53^{\circ} 34^{\prime} \mathrm{N} 113^{\circ} 31^{\prime} \mathrm{W}$ | Edmonton, Alberta |

Using a Canadian map, find the latitude and longitudes of these Canadian locations (Answer Key)

| Location | Latitude and Longitude |
| :---: | :---: |
| Winnipeg, Manitoba | $49^{\circ} 54^{\prime} \mathrm{N} \quad 97^{\circ} 14^{\prime} \mathrm{W}$ |
| Victoria, B.C. | $48^{\circ} 25^{\prime} \mathrm{N} \quad 123^{\circ} 19^{\prime} \mathrm{W}$ |
| Kingston, Ontario | $44^{\circ} 16^{\prime} \mathrm{N} 76^{\circ} 30^{\prime} \mathrm{W}$ |
| Toronto, Ontario | $43^{\circ} 41^{\prime} \mathrm{N} 79^{\circ} 38^{\prime} \mathrm{W}$ |
| Gander, Nfld - Labrador | $48^{\circ} 57^{\prime} \mathrm{N} 54^{\circ} 34^{\prime} \mathrm{W}$ |

## Grade 9 Geography - Unit 2 Lesson 3 Canadian Latitudes and Longitudes

Using a Canadian map, find the Canadian location

| Latitude and Longitude | Location |
| :---: | :---: |
| $46^{\circ} 17{ }^{\prime} \mathrm{N} \quad 63^{\circ} 8^{\prime} \mathrm{W}$ |  |
| $60^{\circ} 43^{\prime} \mathrm{N} \quad 135^{\circ} 4{ }^{\prime} \mathrm{W}$ |  |
| $48^{\circ} 22^{\prime} \mathrm{N} \quad 89^{\circ} 19^{\prime} \mathrm{W}$ |  |
| $48^{\circ} 27^{\prime} \mathrm{N} \quad 68^{\circ} 32^{\prime} \mathrm{W}$ |  |
| $46^{\circ} 10^{\prime} \mathrm{N} \quad 60^{\circ} 3 \prime \mathrm{~W}$ |  |
| $49^{\circ} 11^{\prime} \mathrm{N} \quad 123^{\circ} 10^{\prime} \mathrm{W}$ |  |
| $45^{\circ} 19^{\prime} \mathrm{N} \quad 75^{\circ} 40^{\prime} \mathrm{W}$ |  |
| $45^{\circ} 52^{\prime} \mathrm{N} \quad 66^{\circ} 32^{\prime} \mathrm{W}$ |  |
| $42^{\circ} 16^{\prime} \mathrm{N} \quad 82^{\circ} 58^{\prime} \mathrm{W}$ |  |
| $53^{\circ} 34^{\prime} \mathrm{N} \quad 113^{\circ} 31^{\prime} \mathrm{W}$ |  |

Using a Canadian map, find the latitude and longitudes of these Canadian locations

| Location | Latitude and Longitude |
| :---: | :---: |
| Winnipeg, Manitoba |  |
| Victoria, B.C. |  |
| Kingston, Ontario |  |
| Toronto, Ontario |  |
| Gander, Nfld - Labrador |  |

## Grade 9 Geography - Unit 1 - Lesson 4 Maps - Latitudes and Longitudes



Label the Latitudes and Longitudes on the world map
$90^{\circ} \mathrm{N}$
$45^{\circ} \mathrm{N}$
$0^{\circ}$ Latitude
$45^{\circ}$ S
$90^{\circ} \mathrm{S}$
$180^{\circ} \mathrm{W}$
$135^{\circ} \mathrm{W}$
$90^{\circ} \mathrm{W}$
$45^{\circ} \mathrm{W}$
0은ongitude
$45^{\circ} \mathrm{E}$
$90^{\circ} \mathrm{E}$
$135^{\circ} \mathrm{E}$
180으․
Clue - The world is $360^{\circ}$

## Grade 9 Geography of Canada Unit 1 - Lesson 4 Maps - Latitudes and Longitudes Answers / Teacher Copy



