Name/Date:

Socials 9 Unit 2: Cultures, Conflict, and Colonization in British North America

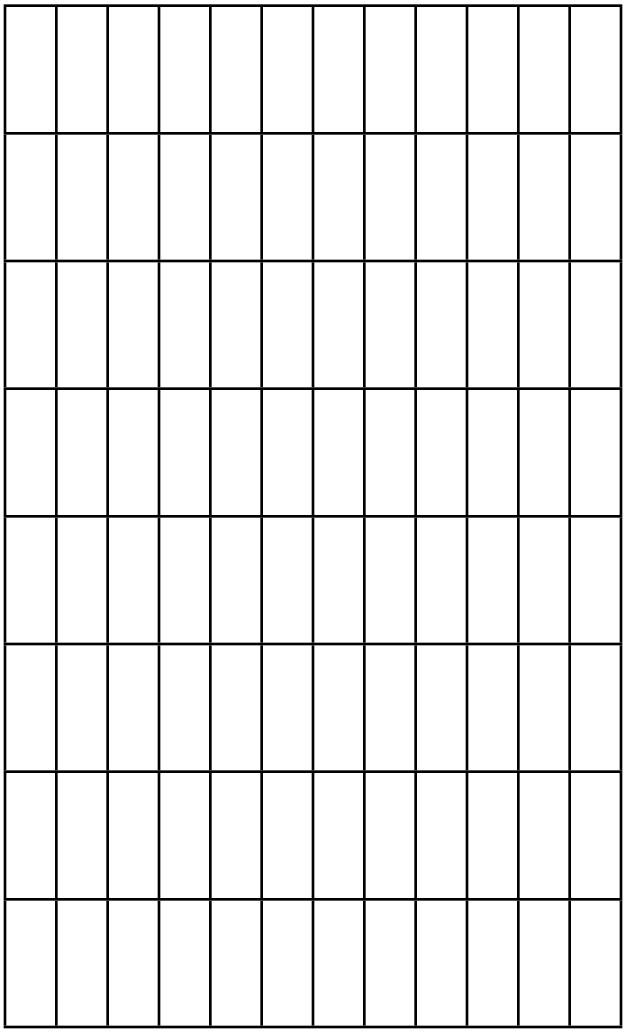
2A Physical Geography of Canada

References:

Cranny, M. (1998) Crossroads: A Meeting of Nations, Ch. 6

Canadian Oxford School Atlas

- ☐ **1st task**... complete *Neat Labels for Maps & Diagrams worksheet (next page)*
- ☐ **2nd task**... complete a sample Climate Graph (below)
- ☐ **3rd task**... complete the questions and notes based on Crossroads Ch. 6
- ☐ **4th task**... take a closer look at glaciation (diagrams and questions)
- ☐ **5th task**... complete the "physiographic regions" notes on the big map assignment
- ☐ **6th task**... complete the climate graphs on the big map
- ☐ **7th task**... complete the other requirement on the big map



Reference: climate data for Prince George and other locations at the back of this handout

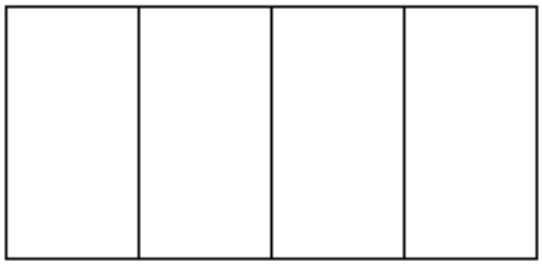
NEAT PRINTING EXERCISE

Instructions:
Practice each block letter neatly & accurately 3 times.

Basic Map Symbols

Instructions:
Practice each feature neatly and accurately.

Direction Indicators -- try it 3 times



Numbers -- try them each 3 times

1

3

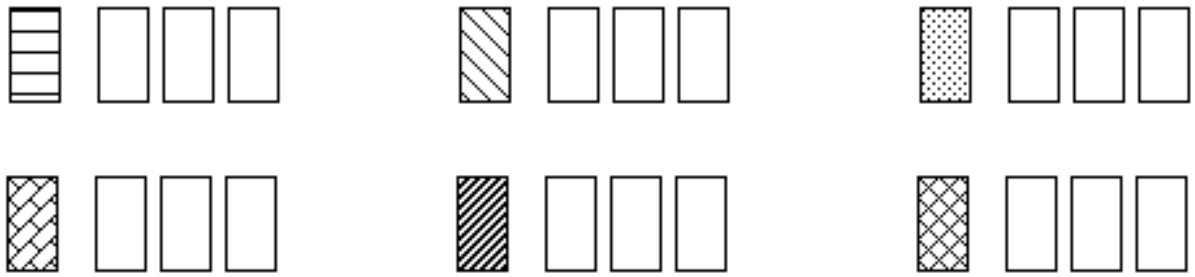
4

8

Scale equation -- try it once

1cm=340km

Even Shading -- shade neatly 3 times for each example



Questions from CROSSROADS Ch. 6

Answer the following questions based on the chapter intro (p. 161-162)

How were the coastal ranges along the West Coast formed? What kind of mountains are they? (e.g. volcanic or fold mountains)

How was the Canadian Shield formed? What kind of mountains were they?

How were the Rocky Mountains formed? What kind of mountains are they?

What effect has glaciation had on the landscape of Canada?

Define the following terms (p. 162) the first one has been done for you

physiographic -- characteristics of topography, vegetation, and climate found in a particular geographic area; a region with similar landform features

erode

plate tectonics

region

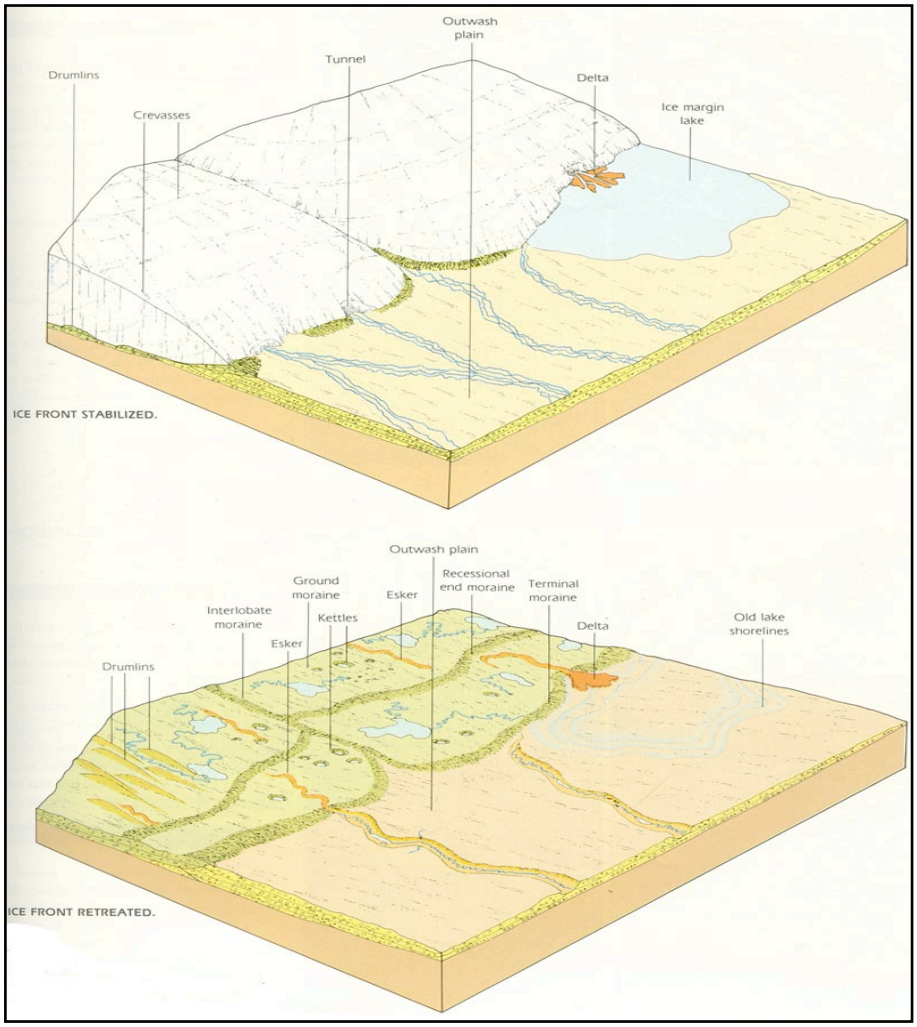
topography

vegetation

climate

Taking a closer look at glaciation

Can you see how the features on the top diagram relate to the features on the bottom diagram?



What do you think MORAINE is?

rocky material left behind by glaciers

How about an ESKER?

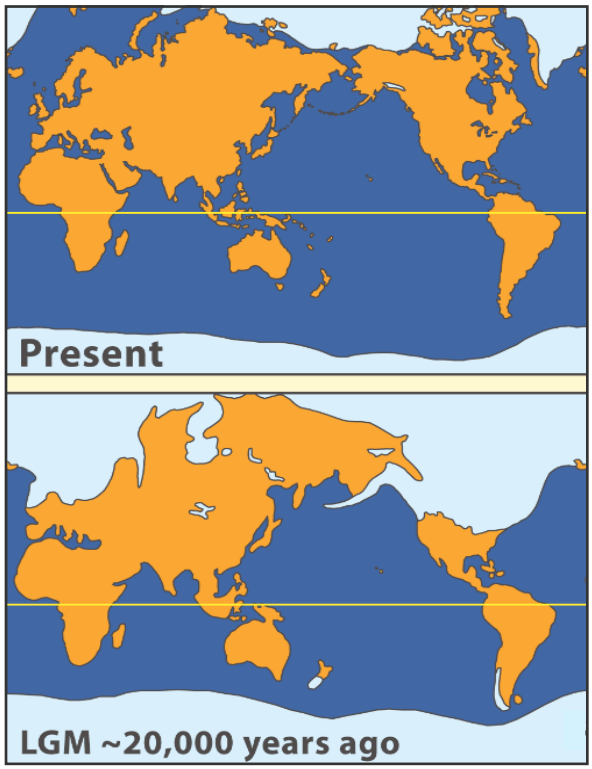
riverbed below a glacier - leaves behind winding pile of stones

a KETTLE?

depression or hole left by a melting chunk of ice

a DRUMLIN?

spoon-shaped hill of ice-sculpted moraine



PLEISTOCENE GLACIATION

Ice Age Before and After

What are some of the key differences between the present and the LGM (last glacial maximum)?

Why do you think Ice Ages happen -- what cause wide-spread glaciation to come and go?

To prepare for your map, you'll start by collecting some notes on each of the "physiographic regions" of North America. These are regions that have similar landscapes and and topography. These notes can be taken directly onto the map that you'l be making, right next to a climate graph that represents a sample location in each of the physiographic regions.

Using Crossroads Ch. 6, p. 164-179,find and record information about each Physiographic Region. The first one is done for you.

REGION	CHARACTERISTICS
Appalachian Region	Description: mountainous area on east coast from Newfoundland to Southern States
	Topography: old. low, eroded mountains. Some fertile plateaus ad river valleys. Coal, oil, & gas found in sedimentary layers (rocks from eroded material)
	Climate: affected by 2 ocean currents -- Labrador current brings cold water & weather from north, Gulf Stream brings warm water & weather from south along coast (ideal conditions for fish)
	Vegetation: mix of coniferous (evergreens with cones) & deciduous (lose their leaves) trees on poor mountain soil and rich valley soil
Coastal Plains Region: find and record similar information directly on the big map	
Great Lakes - St. Lawrence Lowlands: find and record similar information directly on the big map	
Interior Plains: find and record similar information directly on the big map	
Canadian Shield: find and record similar information directly on the big map	
Western Cordillera: find and record similar information directly on the big map	
Intermountain Region: find and record similar information directly on the big map	
Arctic Region: find and record similar information directly on the big map	

Map Requirements:

- title: **Physiographic Regions of North America** (place this in clear block letters at top left of map)
- regions: shaded or coloured
- neat printing and labeling expected -- this will be submitted for marks and will also be used as a study buddy for assessments
- locate each of Canada's provincial & territorial capitals (13 in total) and label them on the map.
- locate the following additional cities and label them on the map: Prince George BC, Prince Rupert BC, Thunder Bay ON, Ottawa ON, Resolute NU, Las Vegas NV (Nevada/USA), New Orleans LA (Louisiana/USA)
- locate and label the following water bodies: Hudson Bay, Labrador Sea, Baffin Bay, Beaufort Sea, Gulf of Alaska, Gulf of Mexico
- each "box" needs a title (region), a colour code (in the smaller box) that matches the map, a brief description based on the notes in your chart (above), and a climate graph (that we will discuss later). You know which box goes with which region by the label above each climate graph.
- a direction indicator (points to north pole... which is somewhat above the top centre area of the map) -- you may make it into a compass rose if you like
- your name/class/date is required -- inside the border of the map
- if you know how to calculate scale (e.g. 1cm = 100 km), you can indicate this on the map as well (inside the border)

CLIMATE DATA (source: http://en.climate-data.org)

CANADA

Alert, NU

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	6	5	5	6	9	12	21	23	23	13	8	7
°C	-31.3	-32.9	-32.5	-24.4	-11.1	-0.6	3.7	1.3	-9.2	-18.9	-25.9	-29.2

Calgary, AB

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	17	16	19	32	51	82	63	55	44	18	14	17
°C	-10.6	-6.8	-3.7	3.4	9.2	13.1	15.8	15.1	10.2	5.3	-3.0	-7.5

Charlottetown, PEI

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	106	86	86	84	85	83	81	91	86	103	117	119
°C	-6.8	-6.8	-2.6	3.1	9.1	14.6	18.7	18.1	13.8	8.4	3.2	-3.4

Churchill, MB

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	16	15	18	25	33	44	50	61	53	45	36	21
°C	-28.5	-26.3	-20.8	-10.5	-1.5	6.1	11.9	11.2	5.1	-2.0	-13.4	-23.1

Dawson City, YK

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	16	12	9	10	26	41	52	42	32	28	25	20
°C	-30.1	-23.8	-14.9	-2.6	7.1	13.4	15.3	12.6	5.9	-4.7	-17.5	-25.4

Edmonton, AB

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	24	16	18	21	43	79	91	70	43	17	16	21
°C	-14.1	-10.0	-4.9	4.1	10.9	14.8	16.8	15.8	10.5	5.2	-5.0	-11.1

Fort McMurray

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	22	14	17	17	33	61	80	67	43	28	25	24
°C	-20.7	-14.8	-8.2	3.2	10.6	15.1	17.2	15.5	9.5	3.5	-7.6	-17.5

Fredericton,NB

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	91	78	80	78	90	88	85	91	89	91	108	110
°C	-9.4	-8.1	-2.5	4.1	10.7	16.0	19.1	18.2	13.3	7.7	1.7	-6.3

Gander, NF

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	106	97	101	85	73	82	74	99	90	103	100	103
°C	-6.1	-6.5	-3.3	1.7	6.8	11.6	16.4	15.7	11.4	6.1	1.9	-3.5

Halifax, NS

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	143	117	121	113	104	95	96	105	91	121	148	156
°C	-4.9	-5.0	-1.1	4.0	9.3	14.4	17.9	18.0	14.2	9.1	3.9	-2.2

Iqaluit, NU

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	22	19	21	28	29	36	58	62	52	43	32	20
°C	-26.4	-27.1	-23.6	-15.0	-4.7	2.8	7.0	6.2	1.6	-5.1	-13.0	-22.1

Kamloops, BC

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	32	19	13	16	24	34	30	31	28	19	25	34
°C	-4.8	-0.8	4.0	9.2	14.0	18.0	20.8	20.1	15.1	8.6	2.1	-2.5

Montreal, QC

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	70	65	73	76	75	88	93	101	91	79	93	94
°C	-10.2	-8.7	-2.7	5.3	12.7	18.0	20.7	19.1	14.4	8.1	1.5	-6.9

Ottawa, ON

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	57	54	59	65	73	82	83	84	82	73	79	77
°C	-10.7	-9.1	-2.9	5.6	12.7	18.0	20.6	19.4	14.7	8.5	1.7	-7.1

Prince George, BC

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	59	40	35	27	47	63	59	64	57	61	53	56
°C	-10.2	-5.2	-0.5	5.1	10.1	13.7	15.9	14.8	10.5	5.2	-2.4	-7.4

Prince Rupert, BC

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	250	214	184	173	133	111	101	143	230	369	284	273
°C	0.7	2.4	3.9	6.1	9.0	11.7	13.7	14.0	12.0	8.5	3.9	1.5

Quebec. QC

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	83	71	71	71	80	114	117	107	105	82	93	107
°C	-11.1	-9.7	-3.8	4.1	11.2	16.6	19.9	18.0	13.3	7.3	0.5	-8.1

Regina, SK

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	18	14	18	22	50	69	59	43	38	21	14	18
°C	-16.7	-13.1	-6.5	3.7	11.1	15.9	18.8	17.7	11.4	4.9	-5.5	-13.3

Resolute, NU

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	3	3	4	6	8	12	23	31	21	14	6	4
°C	-31.8	-32.8	-31.1	-23.1	-10.8	-0.3	4.3	2.3	-4.7	-14.8	-23.6	-28.4

Saskatoon, SK

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	17	14	18	21	40	61	58	40	33	18	15	19
°C	-18.0	-13.8	-7.3	3.7	11.3	16.0	18.6	17.4	11.3	4.9	-5.8	-13.8

St. John’s, NF

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	148	140	129	110	98	85	75	113	107	136	149	150
°C	-3.3	-3.8	-1.7	1.9	5.9	11.0	15.4	15.5	12.0	7.6	4.0	-0.8

Toronto, ON

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	55	51	59	65	66	67	69	81	72	61	72	67
°C	-5.3	-4.5	0.0	7.0	13.1	18.5	21.5	20.7	16.2	10.4	4.2	-2.1

Thunder Bay, ON

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	43	29	43	46	70	80	77	86	83	62	56	42
°C	-15.1	-12.5	-6.2	2.4	9.0	14.2	17.8	16.7	11.4	5.9	-2.4	-10.9

Vancouver, BC

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	179	136	116	75	62	53	36	43	68	138	179	198
°C	2.5	4.3	6.0	9.0	12.5	15.3	17.7	17.4	14.3	10.1	5.9	3.6

Victoria, BC

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	118	80	55	38	26	22	17	22	35	72	112	121
°C	4.3	5.6	6.8	8.8	11.6	13.7	15.5	15.5	13.9	10.2	6.9	4.9

Whitehorse, YK

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	20	15	13	9	14	29	37	37	33	25	21	20
°C	-18.8	-13.1	-7.5	0.4	6.8	11.7	13.9	12.3	7.2	0.8	-8.9	-15.2

Winnipeg, MB

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	22	17	23	35	60	83	75	74	52	34	24	20
°C	-18.7	-15.0	-7.4	3.3	11.2	16.4	19.3	18.1	12.0	5.5	-5.0	-14.4

Yellowknife, NWT

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	14	13	13	11	17	23	38	41	32	34	26	18
°C	-28.2	-25.1	-19.1	-7.3	4.0	11.9	15.4	13.4	6.4	-1.7	-14.2	-23.5

UNITED STATES

Las Vegas, NV

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	12	11	10	5	5	2	10	12	9	6	11	8
°C	7.1	10.0	13.2	17.7	22.9	28.1	31.6	30.7	26.2	19.4	12.0	7.2

New Orleans, LA

month	1	2	3	4	5	6	7	8	9	10	11	12
mm	127	134	126	120	123	139	167	156	141	77	107	129
°C	11.2	13.0	16.4	20.4	24.1	26.8	27.9	27.7	25.9	21.0	16.4	12.9