Name

Form

## PLANET EARTH TEMPERATURE

## 4. Read this article about the seasons and fill in the missing words:

Circle (2x) · equator (2x) · South · northward · twice · Cancer · maximum · vertically · Capricorn · September · tilt

The Seasons
The seasons are caused by the of Earth's axis (23.5°). The seasons are marked by solstices and equinoxes.
The solstices mark the points at which the poles are tilted at their toward or away from the sun.
The solstices occur each year on June 20 or 21 and Dec. 21 or 22.
The tilt of Earth's axis is responsible for four lines you find on every globe. When the North Pole is tilted away from the Sun as
much as possible, the farthest points in the North which can still be reached by the Sun's rays are 23.5° from the pole. This is
the Arctic
the Sun's rays cannot reach beyond this point when we have midsummer in the North.
When the Sun is vertically above the, the day is of equal length all over Earth. This happens a year, and
these are the "equinoxes" in March and in After having been over the equator in March, the Sun will seem to
move
This is the Tropic of; the Sun can never be vertically overhead to the north of this line. Similarly the Sun
cannot be overhead to the south of a line 23.5° south of the equator – the Tropic of

## 5. Describe and compare these four climate graphs.

- Say what types of climate they represent and why these four cities have different types of climate.
- Compare the highest and lowest temperatures. How big are the temperature ranges between summer and winter?
- Compare the amounts of precipitation.

		Paris			Stuttga	rt		Vienna		
[mm]	[° C]	Month	[mm]	[° C]	Month	[mm]	[° C]	Month	[mm]	[° C]
136	6.3	Jan	52	3.4	Jan	44	-0.4	Jan	38	-0.7
106	6.2	Feb	45	4.2	Feb	42	0.8	Feb	42	1.3
104	7.3	Mar	53	6.6	Mar	44	4.2	Mar	41	5.3
70	8.8	Apr	45	9.5	Apr	61	8.0	Apr	50	10.2
73	11.4	May	62	13.2	May	82	12.5	May	61	14.8
51	14.2	Jun	65	16.4	Jun	96	15.7	Jun	74	18.0
46	15.9	Jul	54	18.4	Jul	70	17.7	Jul	62	19.9
59	16.0	Aug	51	18.0	Aug	79	17.0	Aug	65	19.2
79	14.7	Sep	54	15.4	Sep	57	13.7	Sep	45	15.4
106	12.3	0ct	57	11.5	0ct	43	9.0	0ct	41	10.1
118	8.9	Nov	55	6.8	Nov	55	3.9	Nov	50	4.8
137	7.3	Dec	54	4.3	Dec	48	0.6	Dec	44	1.0
1085	10.8	Year	639	10.6	Year	720	8.6	Year	613	9.9
	136 106 104 70 73 51 46 59 79 106 118	136 6.3 106 6.2 104 7.3 70 8.8 73 11.4 51 14.2 46 15.9 59 16.0 79 14.7 106 12.3 118 8.9 137 7.3	[mm]        [° C]        Month          136        6.3        Jan          106        6.2        Feb          104        7.3        Mar          70        8.8        Apr          73        11.4        May          51        14.2        Jun          46        15.9        Jul          59        16.0        Aug          79        14.7        Sep          106        12.3        Oct          118        8.9        Nov          137        7.3        Dec	[mm]        [° C]        Month        [mm]          136        6.3        Jan        52          106        6.2        Feb        45          104        7.3        Mar        53          70        8.8        Apr        45          73        11.4        May        62          51        14.2        Jun        65          46        15.9        Jul        54          59        16.0        Aug        51          79        14.7        Sep        54          106        12.3        Oct        57          118        8.9        Nov        55          137        7.3        Dec        54	Imm        [° C]        Month        [mm]        [° C]          136        6.3        Jan        52        3.4          106        6.2        Feb        45        4.2          104        7.3        Mar        53        6.6          70        8.8        Apr        45        9.5          73        11.4        May        62        13.2          51        14.2        Jun        65        16.4          46        15.9        Jul        54        18.4          59        16.0        Aug        51        18.0          79        14.7        Sep        54        15.4          106        12.3        Oct        57        11.5          118        8.9        Nov        55        6.8          137        7.3        Dec        54        4.3	Imm        [° C]        Month        [mm]        [° C]        Month          136        6.3        Jan        52        3.4        Jan          106        6.2        Feb        45        4.2        Feb          104        7.3        Mar        53        6.6        Mar          70        8.8        Apr        45        9.5        Apr          73        11.4        May        62        13.2        May          51        14.2        Jun        65        16.4        Jun          46        15.9        Jul        54        18.4        Jul          59        16.0        Aug        51        18.0        Aug          79        14.7        Sep        54        15.4        Sep          106        12.3        Oct        57        11.5        Oct          118        8.9        Nov        55        6.8        Nov          137        7.3        Dec        54        4.3        Dec	Imm        [° C]        Month        [mm]        [° C]        Month        [mm]          136        6.3        Jan        52        3.4        Jan        44          106        6.2        Feb        45        4.2        Feb        42          104        7.3        Mar        53        6.6        Mar        44          70        8.8        Apr        45        9.5        Apr        61          73        11.4        May        62        13.2        May        82          51        14.2        Jun        65        16.4        Jun        96          46        15.9        Jul        54        18.4        Jul        70          59        16.0        Aug        51        18.0        Aug        79          79        14.7        Sep        54        15.4        Sep        57          106        12.3        Oct        57        11.5        Oct        43          118        8.9        Nov        55        6.8        Nov        55          137        7.3	Imm        [° C]        Month        [mm]        [° C]        Month        [mm]        [° C]          136        6.3        Jan        52        3.4        Jan        44        -0.4          106        6.2        Feb        45        4.2        Feb        42        0.8          104        7.3        Mar        53        6.6        Mar        44        4.2          70        8.8        Apr        45        9.5        Apr        61        8.0          73        11.4        May        62        13.2        May        82        12.5          51        14.2        Jun        65        16.4        Jun        96        15.7          46        15.9        Jul        54        18.4        Jul        70        17.7          59        16.0        Aug        51        18.0        Aug        79        17.0          79        14.7        Sep        54        15.4        Sep        57        13.7          106        12.3        Oct        57        11.5        Oct        43        9.	[mm]        [° C]        Month        [mm]        [° C]        Month        [mm]        [° C]        Month          136        6.3        Jan        52        3.4        Jan        44        -0.4        Jan          106        6.2        Feb        45        4.2        Feb        42        0.8        Feb          104        7.3        Mar        53        6.6        Mar        44        4.2        Mar          70        8.8        Apr        45        9.5        Apr        61        8.0        Apr          73        11.4        May        62        13.2        May        82        12.5        May          51        14.2        Jun        65        16.4        Jun        96        15.7        Jun          46        15.9        Jul        54        18.4        Jul        70        17.7        Jul          59        16.0        Aug        51        18.0        Aug        79        17.0        Aug          79        14.7        Sep        54        15.4        Sep        57 <t< td=""><td>[mm]        [° C]        Month        [mm]        [° C]        Month        [mm]        [° C]        Month        [mm]          136        6.3        Jan        52        3.4        Jan        44        -0.4        Jan        38          106        6.2        Feb        45        4.2        Feb        42        0.8        Feb        42          104        7.3        Mar        53        6.6        Mar        44        4.2        Mar        41          70        8.8        Apr        45        9.5        Apr        61        8.0        Apr        50          73        11.4        May        62        13.2        May        82        12.5        May        61          51        14.2        Jun        65        16.4        Jun        96        15.7        Jun        74          46        15.9        Jul        54        18.4        Jul        70        17.7        Jul        62          59        16.0        Aug        51        18.0        Aug        79        17.0        Aug        6</td></t<>	[mm]        [° C]        Month        [mm]        [° C]        Month        [mm]        [° C]        Month        [mm]          136        6.3        Jan        52        3.4        Jan        44        -0.4        Jan        38          106        6.2        Feb        45        4.2        Feb        42        0.8        Feb        42          104        7.3        Mar        53        6.6        Mar        44        4.2        Mar        41          70        8.8        Apr        45        9.5        Apr        61        8.0        Apr        50          73        11.4        May        62        13.2        May        82        12.5        May        61          51        14.2        Jun        65        16.4        Jun        96        15.7        Jun        74          46        15.9        Jul        54        18.4        Jul        70        17.7        Jul        62          59        16.0        Aug        51        18.0        Aug        79        17.0        Aug        6

## These expressions may help you!

- metres above sea level, precipitation (rain, snow, hail, drizzle, etc.), temperature (xx degrees Centigrade)
- mean (average) annual precipitation,
  mean (average) annual temperature,
  maximum / minimum temperature
- temperature rise / fall (steadily / rapidly / ...), ...
- 6. In the film, you learnt a lot about the Gulf Stream and why and how it affects the climate in various regions on the Northern hemisphere. For example, a lot of tourists enjoy the mild climate on the island of Guernsey.
- Say why the climate is so attractive to many people. These websites may help you collect information: http://www.doc.mmu.ac.uk/aric/eae/Climate/Older/Gulf\_Stream.html http://www.destinasjontromso.no/gulfstrmmens\_historie\_eng.htm http://en.wikipedia.org/wiki/Gulf\_stream