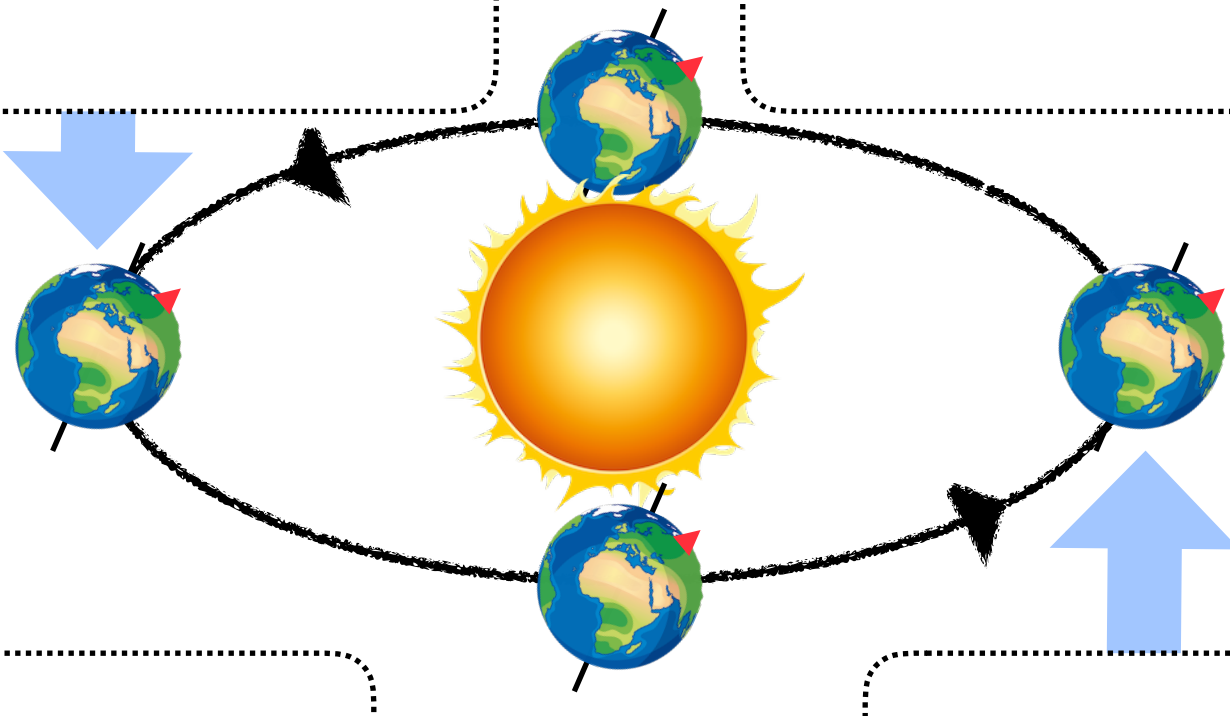
Earth and Space

Worksheet 3A

Name: _____ Date: _____

Stick the correct Season Label and description next to the correct position of Earth for each season in the Northern Hemisphere.

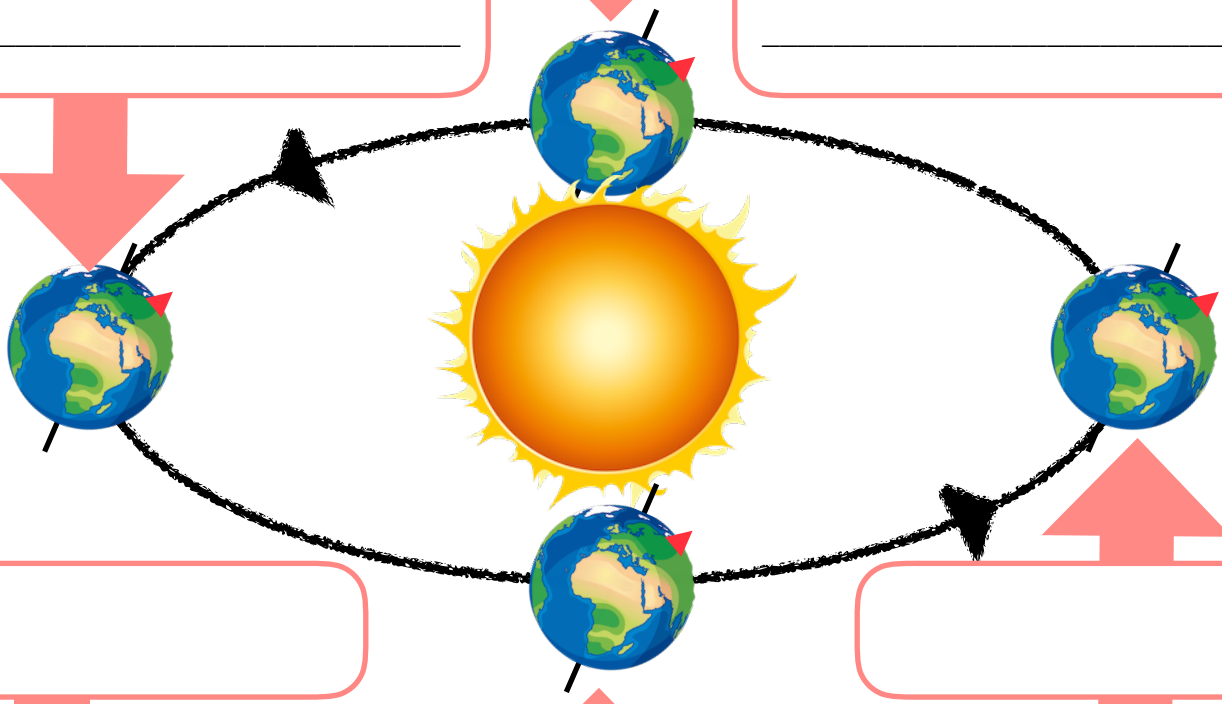


Earth and Space

Worksheet 3B

Name: _____ Date: _____

Label the positions in Earth's orbit with the correct season that the Northern Hemisphere is in. Explain how you know and some other facts you know about each season.



summer winter autumn spring longer shorter northern southern
warmer colder tilted towards away from orbit hemisphere month

The Northern Hemisphere is not tilted towards, or away from the Sun.
Earth will be moving into a position where the Northern Hemisphere will be tilted towards the Sun.
The days are beginning to become longer and the weather is getting warmer.

The Northern Hemisphere is not tilted towards, or away from the Sun.
Earth will be moving into a position where the Northern Hemisphere will be tilted away from the Sun.
The days are beginning to become shorter and the weather is getting colder.

The Northern Hemisphere is tilted towards the Sun.
The days are the longest they will be all year and the weather is warm.
This season occurs during the months of June, July and August.

The Northern Hemisphere is tilted away from the Sun.
The days are the shortest they will be all year and the weather is cold.
This season occurs during the months of December, January and February.

Spring

Summer

Autumn

Winter

The Northern Hemisphere is not tilted towards, or away from the Sun.
Earth will be moving into a position where the Northern Hemisphere will be tilted towards the Sun.
The days are beginning to become longer and the weather is getting warmer.

The Northern Hemisphere is not tilted towards, or away from the Sun.
Earth will be moving into a position where the Northern Hemisphere will be tilted away from the Sun.
The days are beginning to become shorter and the weather is getting colder.

The Northern Hemisphere is tilted towards the Sun.
The days are the longest they will be all year and the weather is warm.
This season occurs during the months of June, July and August.

The Northern Hemisphere is tilted away from the Sun.
The days are the shortest they will be all year and the weather is cold.
This season occurs during the months of December, January and February.

Spring

Summer

Autumn

Winter

Spring

Autumn

The days are beginning to become longer and the weather is getting warmer.

Earth will be moving into a position where the Northern Hemisphere will be tilted away from the Sun.

The Northern Hemisphere is tilted away from the Sun.

This season occurs during the months of June, July and August.

The days are the shortest they will be all year and the weather is cold.

The days are beginning to become shorter and the weather is getting colder.

The Northern Hemisphere is not tilted towards, or away from the Sun.

Earth will be moving into a position where the Northern Hemisphere will be tilted towards the Sun.

This season occurs during the months of December, January and February.

The Northern Hemisphere is tilted towards the Sun.

The days are the longest they will be all year and the weather is warm.

The Northern Hemisphere is not tilted towards, or away from the Sun.

Summer

Winter

Spring

Autumn

The days are beginning to become longer and the weather is getting warmer.

Earth will be moving into a position where the Northern Hemisphere will be tilted away from the Sun.

The Northern Hemisphere is tilted away from the Sun.

This season occurs during the months of June, July and August.

The days are the shortest they will be all year and the weather is cold.

The days are beginning to become shorter and the weather is getting colder.

The Northern Hemisphere is not tilted towards, or away from the Sun.

Earth will be moving into a position where the Northern Hemisphere will be tilted towards the Sun.

This season occurs during the months of December, January and February.

The Northern Hemisphere is tilted towards the Sun.

The days are the longest they will be all year and the weather is warm.

The Northern Hemisphere is not tilted towards, or away from the Sun.

Summer

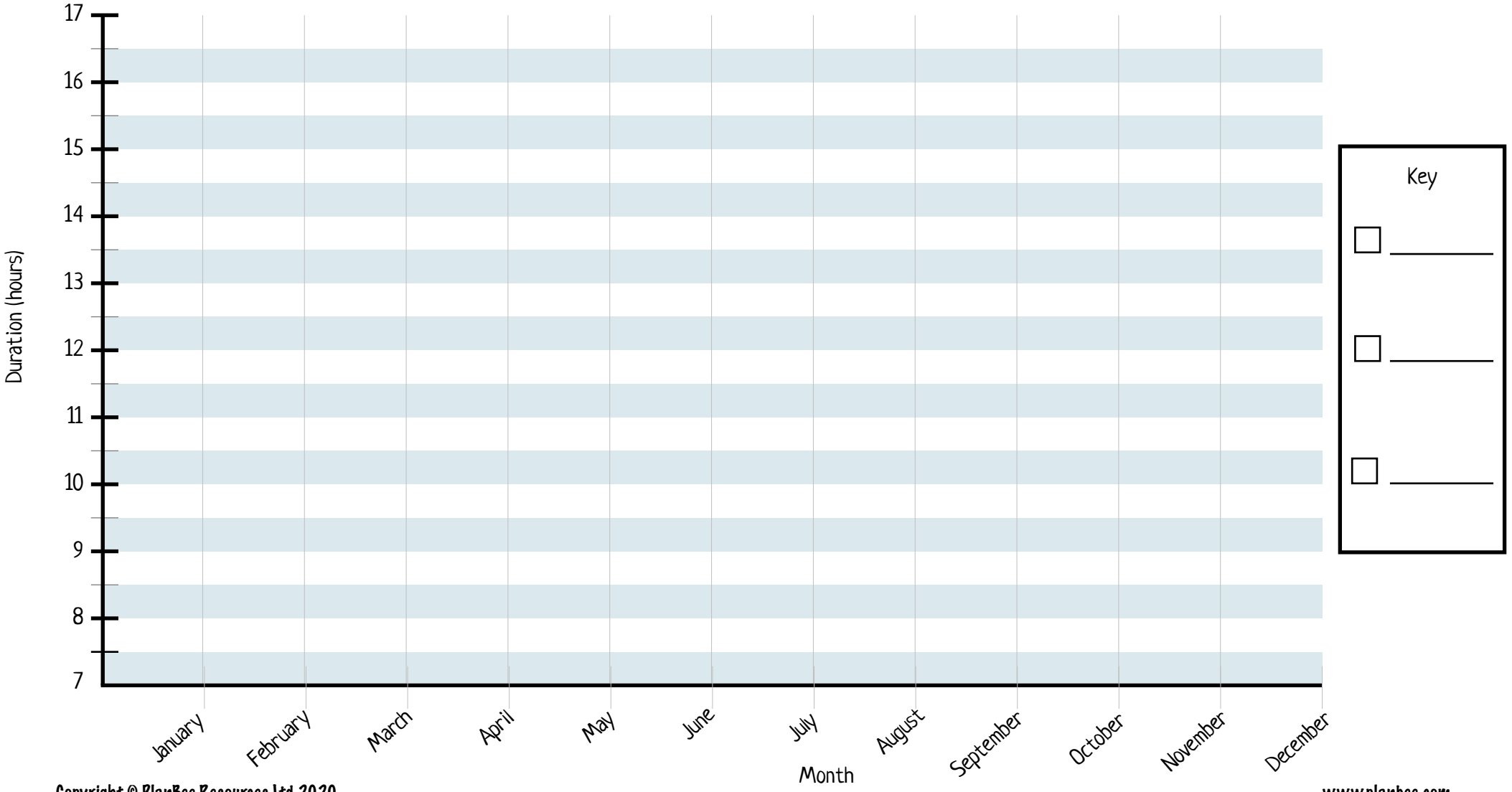
Winter

Earth and Space

Worksheet 3C

Name: _____ **Date:** _____

A graph to show the average monthly day length



Earth and Space

Graph Paper 3A

Name: _____ Date: _____

Create a graph to show the average day length by month using the data below. Remember, your y axis will be time duration and should use hours and minutes.

Northern Hemisphere

Southern Hemisphere

London, UK	Hours of daylight	Pretoria, South Africa	Hours of daylight
January	8h 24m	January	13h 37m
February	10h 3m	February	13h
March	11h 56m	March	12h 17m
April	13h 58m	April	11h 31m
May	15h 43m	May	10h 54m
June	16h 41m	June	10h 35m
July	16h 14m	July	10h 43m
August	14h 39m	August	11h 16m
September	12h 42m	September	11h 59m
October	10h 45m	October	12h 44m
November	8h 55m	November	13h 25m
December	7h 56m	December	13h 47m

Create a graph to show the average day length by month using the data below. Remember, your y axis will be time duration and should use hours and minutes.

Northern Hemisphere

Southern Hemisphere

London, UK	Hours of daylight	Pretoria, South Africa	Hours of daylight
January	8h 24m	January	13h 37m
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June	16h 41m	June	10h 35m
July	16h 14m	July	10h 43m
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October	10h 45m	October	12h 44m
November	8h 55m	November	13h 25m
December	7h 56m	December	13h 47m

Create a graph to show the average day length by month using the data below. Remember, your y axis will be time duration and should use hours and minutes.

Northern Hemisphere | Southern Hemisphere | Equator

London, UK	Hours of daylight	Pretoria, South Africa	Hours of daylight	Quito, Equador	Hours of daylight
January	8h 24m	January	13h 37m	January	12h 10m
February	10h 3m	February	13h	February	12h 9m
March	11h 56m	March	12h 17m	March	12h 9m
April	13h 58m	April	11h 31m	April	12h 9m
May	15h 43m	May	10h 54m	May	12h 9m
June	16h 41m	June	10h 35m	June	12h 9m
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Northern Hemisphere | Southern Hemisphere | Equator

London, UK	Hours of daylight	Pretoria, South Africa	Hours of daylight	Quito, Equador	Hours of daylight
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March	11h 56m	March	12h 17m	March	12h 9m
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October	10h 45m	October	12h 44m	October	12h 9m
November	8h 55m	November	13h 25m	November	12h 10m
December	7h 56m	December	13h 47m	December	12h 10m

What do you notice about the Northern Hemisphere's graph?

What do you notice about the Southern Hemisphere's graph?

What differences can you spot between the day length in the two locations?

Which months are summer for the UK?
How do you know?

Which months are winter for the UK?
How do you know?

Which months are summer for South Africa?
How do you know?

Which months are winter for South Africa?
How do you know?

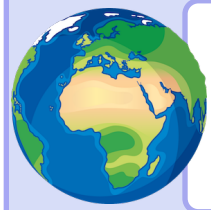
Which of the two countries has the longest days?

Which of the two countries has the shortest days?

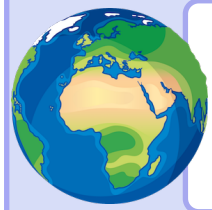
In which months do the two locations have a similar day length. Which seasons are they in?

Can you explain why the UK has longer days in June and South Africa has shorter days?

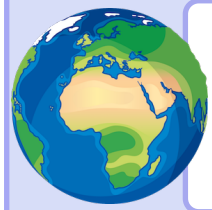
What is the difference between South Africa's longest day and the UK's longest day?



What do you notice about the Northern Hemisphere's graph?



What do you notice about the Southern Hemisphere's graph?

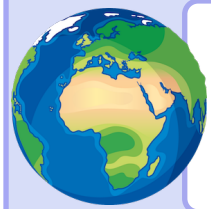


What differences can you spot between the day length in the three locations?

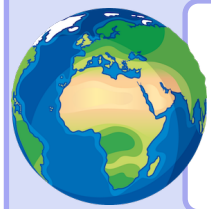
What do you notice about the Equator's graph?

Which months are winter for the UK?
How do you know?

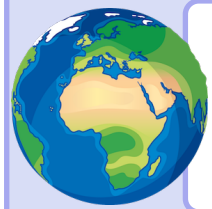
Which months are summer for the UK?
How do you know?



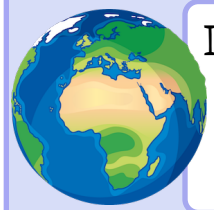
Which months are winter for South Africa?
How do you know?



Which of the three countries has the longest days?

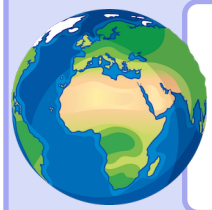


Can you explain why the equator's graph looks like it does?



In which months do the three locations have a similar day length. Which seasons are they in?

Can you explain why the UK has longer days in June and South Africa has shorter days?



What is the difference between South Africa's longest day and the UK's longest day?

Earth and Space — Answers — Worksheet 3A

Name: _____ Date: _____

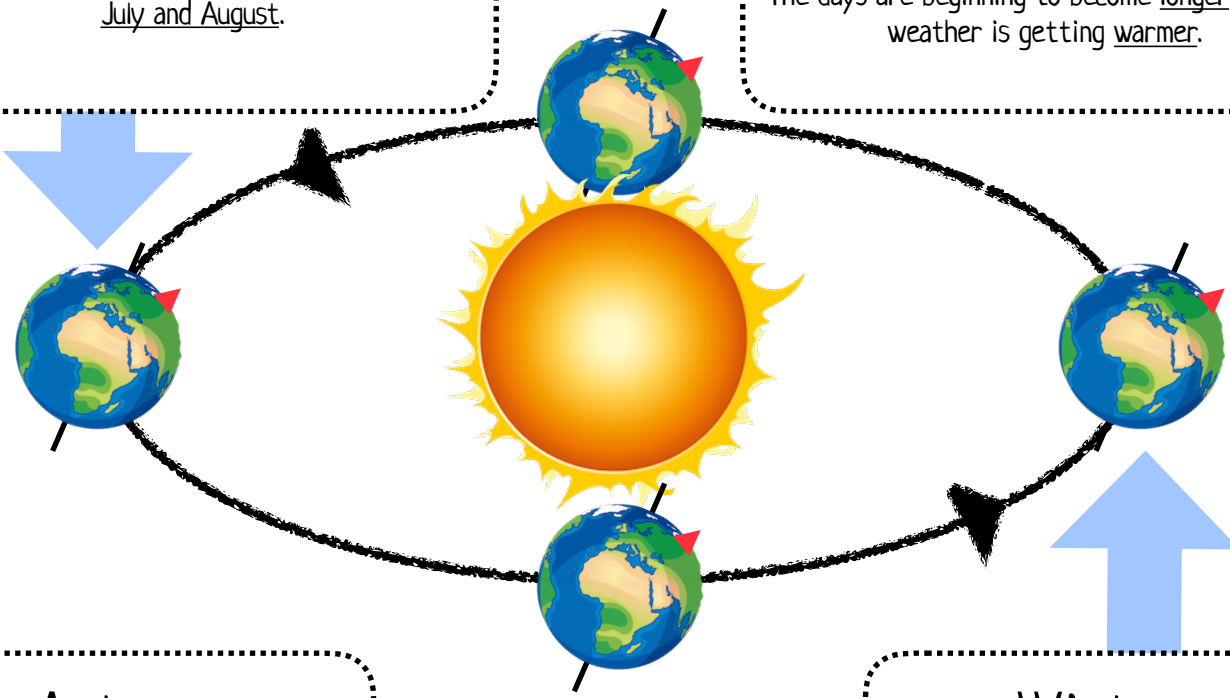
Stick the correct Season Label and description next to the correct position of Earth for each season in the Northern Hemisphere.

Summer

The Northern Hemisphere is tilted towards the Sun.
The days are the longest they will be all year and the weather is warm.
This season occurs during the months of June, July and August.

Spring

The Northern Hemisphere is not tilted towards, or away from the Sun.
Earth will be moving into a position where the Northern Hemisphere will be tilted towards the Sun.
The days are beginning to become longer and the weather is getting warmer.



Autumn

The Northern Hemisphere is not tilted towards, or away from the Sun.
Earth will be moving into a position where the Northern Hemisphere will be tilted away from the Sun.
The days are beginning to become shorter and the weather is getting colder.

Winter

The Northern Hemisphere is tilted away from the Sun.
The days are the shortest they will be all year and the weather is cold.
This season occurs during the months of December, January and February.