

Welcome to GCSE Geography



Where will it take us today?

	A01: Knowledge	A02: Understanding	A03: Application of K&U
Comprehensive	good range detailed and accurate fully relevant to the Qn	good range detailed and accurate fully relevant to the Qn	detailed & accurate analysis substantiated judgements substantiated evaluation
Thorough	range accurate relevant to the Qn.	range accurate relevant to the Qn.	accurate analysis supported judgements supported evaluations
Reasonable	some relevant to the Qn.	some; relevant to the Qn	some accuracy partially supported judgement partially supported evaluation
Basic	limited relevant knowledge	limited but relevant	limited analysis unsupported judgement unsupported evaluation

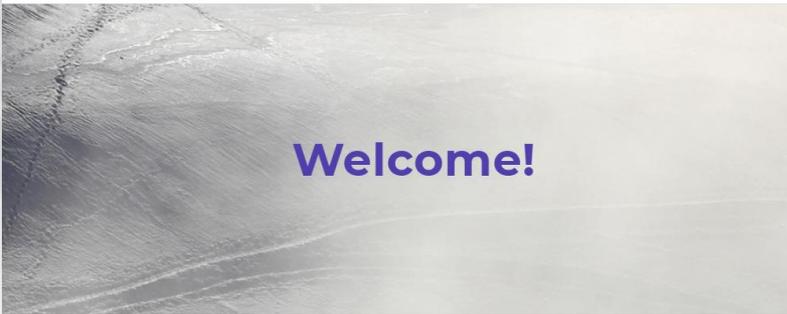


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#geography teacher @ H.A.D. Tweeting useful links about all things geographical.
West Midlands, England
Joined Feb 2017

TWEETS 799 FOLLOWING 76 FOLLOWERS 132 LISTED 2

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GEOGRAPHY Home KS3 **KS4** Links Twitter Games! GeoLingo Key Dates More... 🔍 👤



Welcome!

OCR B GCSE 9-1: Geography for Enquiring Minds

Use the links below to navigate to your current GCSE geography topic

- [Global Hazards](#)
- [Changing Climate](#)
- [Distinctive Landscapes](#)
- [Sustaining ecosystems](#)
- [Urban Futures](#)
- [Dynamic Development](#)
- [UK in the 21st century](#)
- [Resource Reliance](#)
- [Y11 Revision Resources](#)

The G.C.S.E geography course in a nutshell [well... a one page summary]

[gcses_9-1_geography_news.pdf](#)
Download File

1	G	3c
		3b
		3a
2	F	4c
		4b
		4a
3	E	5c
		5b
		5a
4	D	6c
		6b
		6a
5	C	7c
		7b
		7a
6	B	8c
		8b
		8a
7	A	EP
		EP
		EP
8	A*	EP
		EP
		EP
9	A*	EP
		EP
		EP

TOPIC 1.1:

GLOBAL HAZARDS

1.1a: How can weather be hazardous?

iii) The distribution and frequency of

Think back.....



Geolingo for how much a surface reflects or absorbs the sun's rays

Name of the part of the atmosphere where air circulates

Number of cells of air in each hemisphere



Geolingo for UK climate type

Name of wind caused by air flowing downhill

N.A.D. an ocean current affecting the temps on the west coast of the UK



This 'a' affects temperatures, what is it and what's the correlation?

This is the 'type' of rainfall most common in TRFs

A wind that blows downhill in the Antarctic is called this

How many points can you rack up?

What? Where?
How fast?



Imagine a ride like this ... 3x faster,
spinning you anti-clockwise for up to
24 HOURS?

The name of this 'ride' is

What am I?

- I have one eye and no legs.
- My name can be either male or female.
- I am found between the Tropic of Cancer and Tropic of Capricorn.
- I cause high winds, heavy rain, storm surges and even tornadoes.
- This is a picture of me from space:
- I am known by a variety of names, including typhoon, tropical cyclone, willy willy and hurricane.



**When you think you know, hold up your planner.
Please DO keep the answer to yourself**

What do you know about tropical storms?



Why do we have Tropical Storms?

Learning is successful when I can:

- describe what a tropical storm is.
- describe and suggest reasons for the global distribution of tropical storms.
- explain the conditions needed and processes involved for a tropical storm to form.
- Comment on the frequency of tropical storms over time

Impressive
Vocabulary

Keywords

Coriolis effect
Willy Willy
Tornado
Typhoon
Hurricane
Cyclone
Eye
El Nino

Geography Skills:

Scale

Conceptual
understanding

Literacy Skills:

Capital Letters
Spelling
Describing
distributions

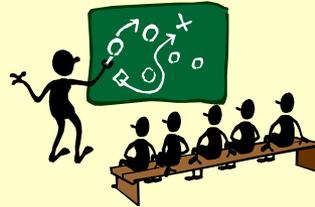
Employability Skills:

Independent thinking
Time management



PRESENT NEW INFORMATION

LOOK, LISTEN, LEARN

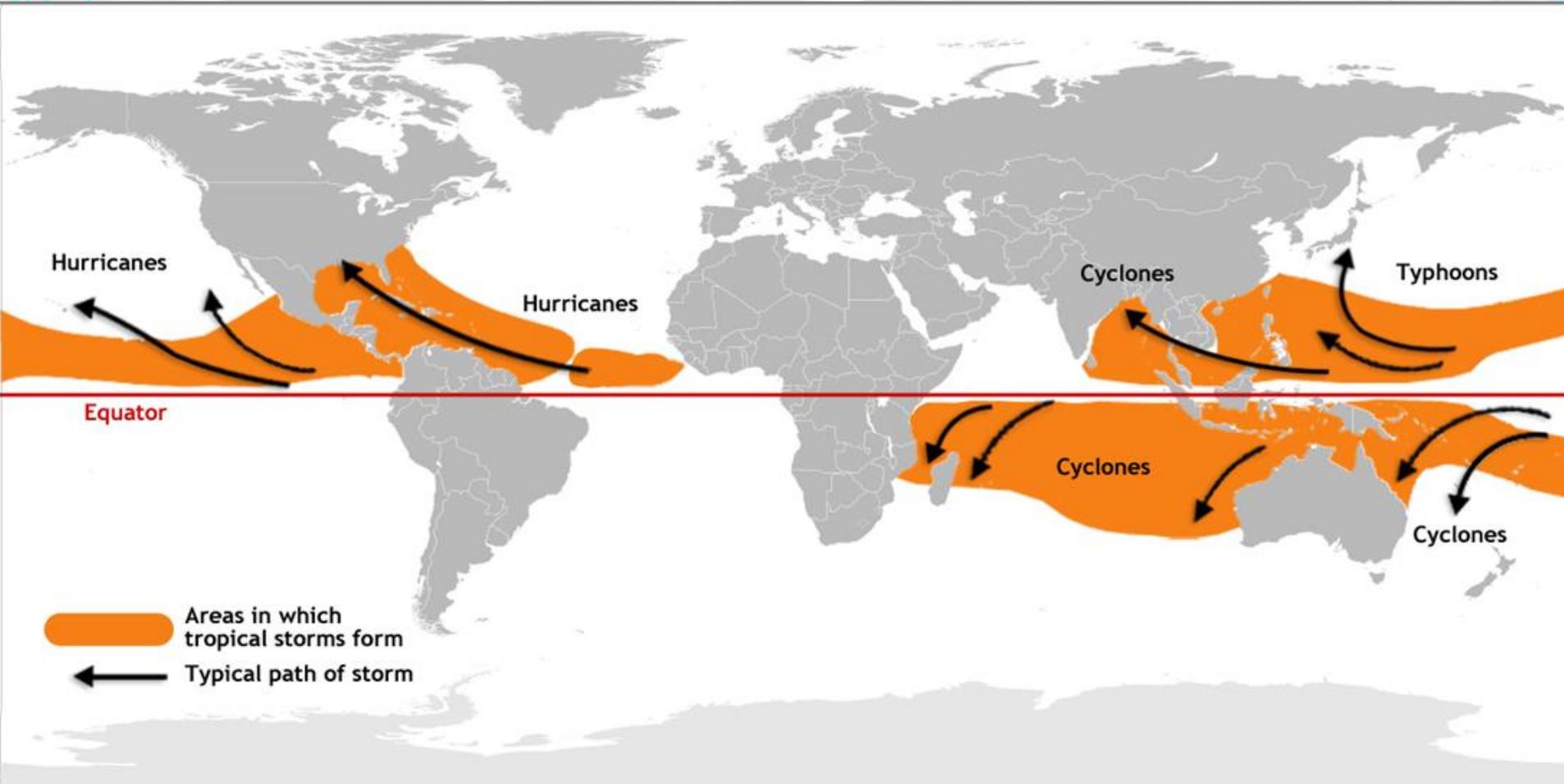


What is a tropical storm?

1. Watch and listen carefully

2. Scores on the doors? ?/9

Why do Tropical Storms have 'different' names?



How might we go about trying to remember this?

Tropical Storms – when? where? frequency?

15
mins

Over To You: Annotate your map with the information below, placing it in the relevant area wherever possible

Energy released by the average hurricane has increased by 70% in past 30 years

El Nino is affecting storm frequency – fewer in the Atlantic, more in eastern South Pacific

Occur in late summer months (November – April) in southern hemisphere

Approx 80 storms per year

Most in Pacific, then Indian, then Atlantic

Most powerful – western Pacific

Occur in late summer months (June – November) in northern hemisphere

Some evidence to suggest that storms becoming more intense (stronger)

Number of storms increased in Atlantic since 1995, but no global trend

Tropical Storms – when? where? frequency?

15
mins

Over To You: Annotate your map with the information below, placing it in the relevant area wherever possible

Energy released by the average hurricane has increased by 70% in past 30 years

El Nino is affecting storm frequency – fewer in the Atlantic, more in eastern South Pacific

Occur in late summer months (January – April) in southern hemisphere

Approx 80 storms per year

Most in Pacific, then Indian, then Atlantic

Most powerful – western Pacific

Occur in late summer months (June – November) in northern hemisphere

Some evidence to suggest that storms becoming more intense (stronger)

Number of storms increased in Atlantic since 1995, but no global trend

Tropical Storm formation

Vital Ingredients

Temperatures of:

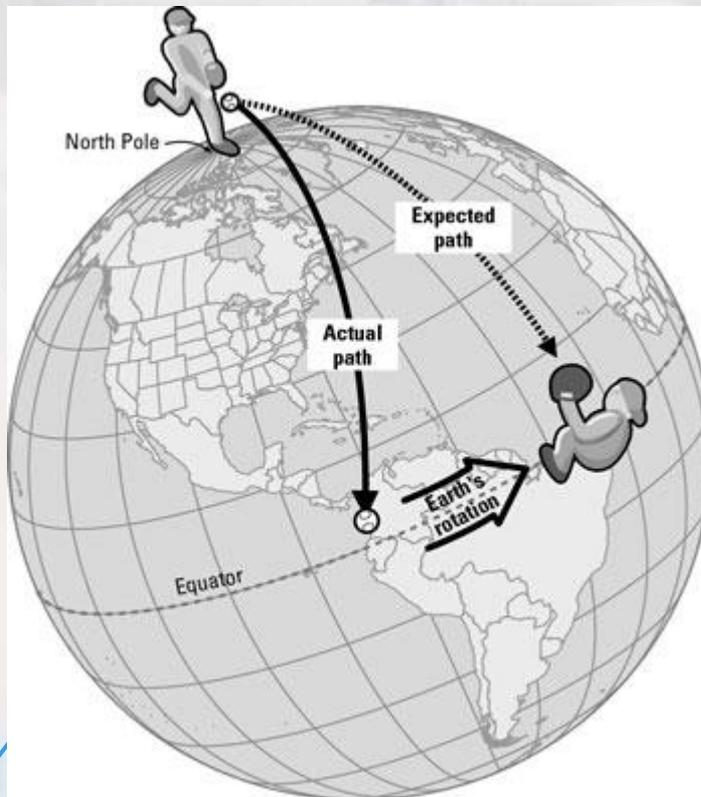
Ocean depth of:

Followed by let's find out



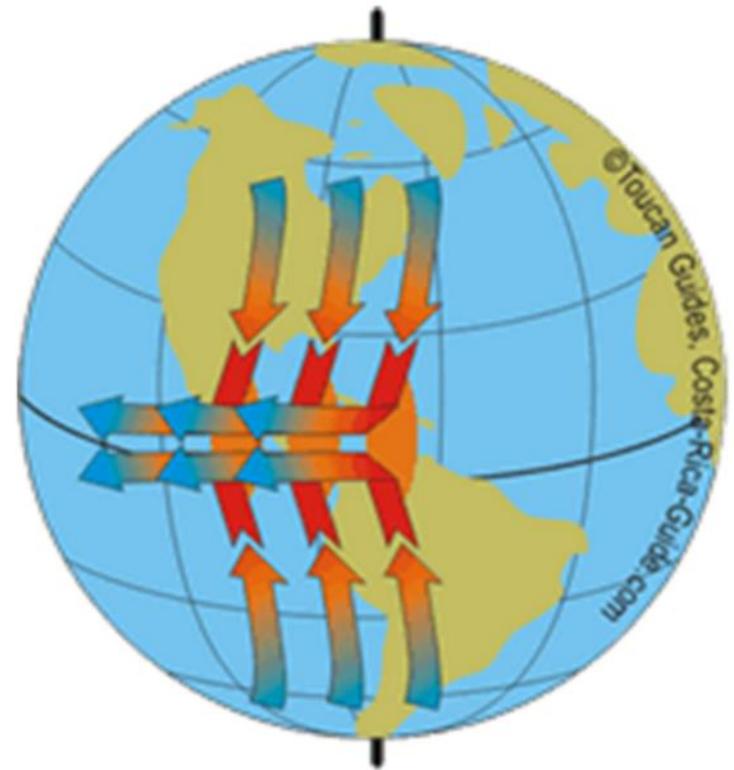
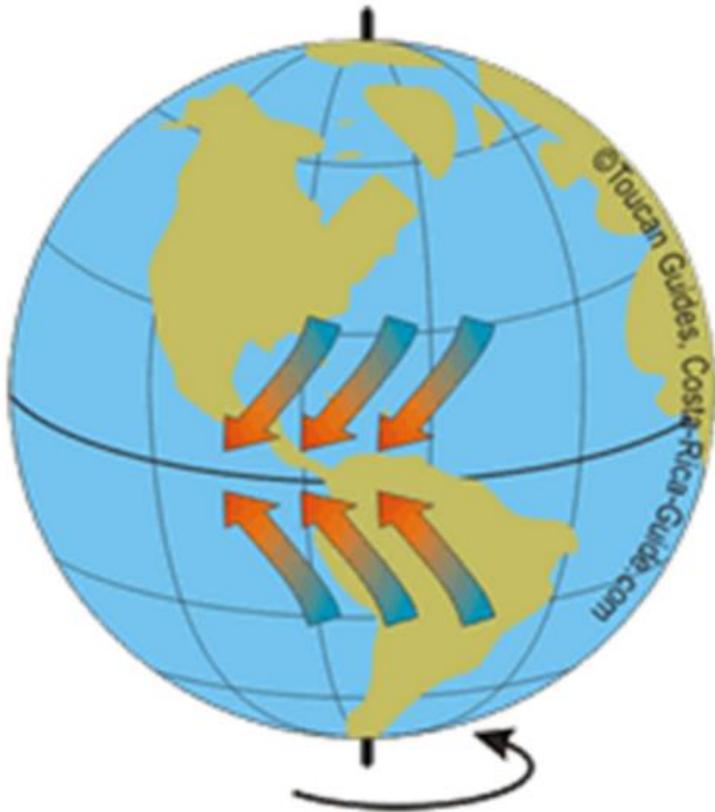
Key Concept

Coriolis Effect = *The result of Earth's rotation on weather patterns and ocean currents, making storms swirl clockwise in the southern hemisphere and anticlockwise in the northern hemisphere.*



Key Concept

Coriolis Effect = *The result of Earth's rotation on weather patterns and ocean currents, making storms swirl clockwise in the southern hemisphere and anticlockwise in the northern hemisphere.*



Yikes the Tropical Storm swirled these out of order!

- When the vertical winds reach the top of the troposphere at 16km the air flows outwards, deflected by the Coriolis effect.
- Air rises faster and draws in more warm air from the sea surface whilst sucking cooler air downwards.
- Warm sea (26.5°C) causes the air to rise quickly causing low pressure.
- The spin of the earth causes the winds to rotate.
- The tropical storm maintains its strength as long as it remains over water.
- It can take hours or days to fully form a tropical storm. The eye has calm winds which are surrounded by a spinning vortex of high winds and heavy rain.
- Winds blow around the eye of the storm reaching up to 180mph.
- As warm, moist air rises it expands, cools and condenses to form clouds.

Over To You

Number these sentences on your version to explain how a tropical storm is formed.

HOW DID YOU GET ON?

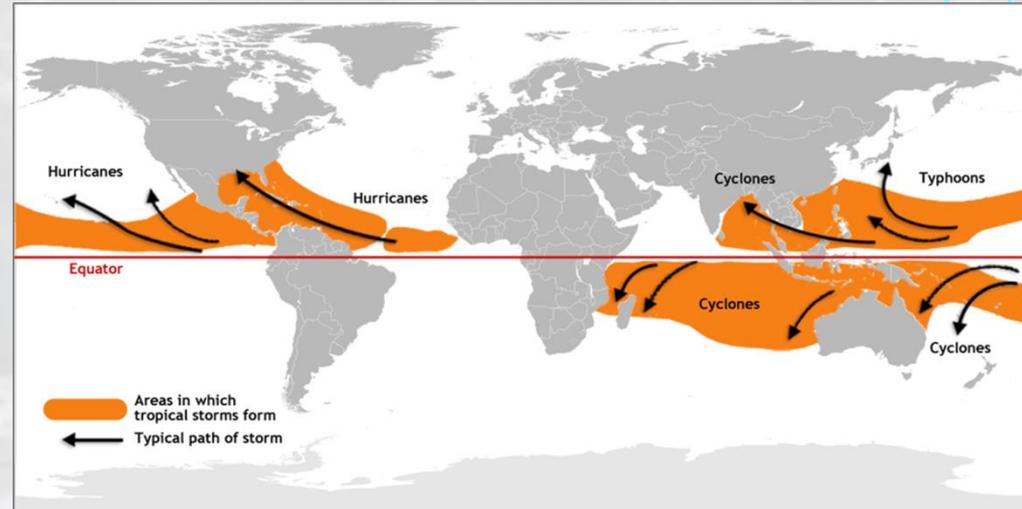


3
mins
peer
assess

1. Warm sea (26.5°C) causes the air to rise quickly causing low pressure .
2. As warm, moist air rises it expands, cools and condenses to form clouds.
3. The spin of the earth causes the winds to rotate.
4. Air rises faster and draws in more warm air from the sea surface whilst sucking cooler air downwards.
5. Winds blow around the eye of the storm reaching up to 180mph.
6. When the vertical winds reach the top of the troposphere at 16km the air flows outwards, deflected by the Coriolis effect.
7. It can take hours or days to fully form a tropical storm. The eye has calm winds which are surrounded by a spinning vortex of high winds and heavy rain.
8. The tropical storm maintains its strength as long as it remains over water, this can be 6-14 days

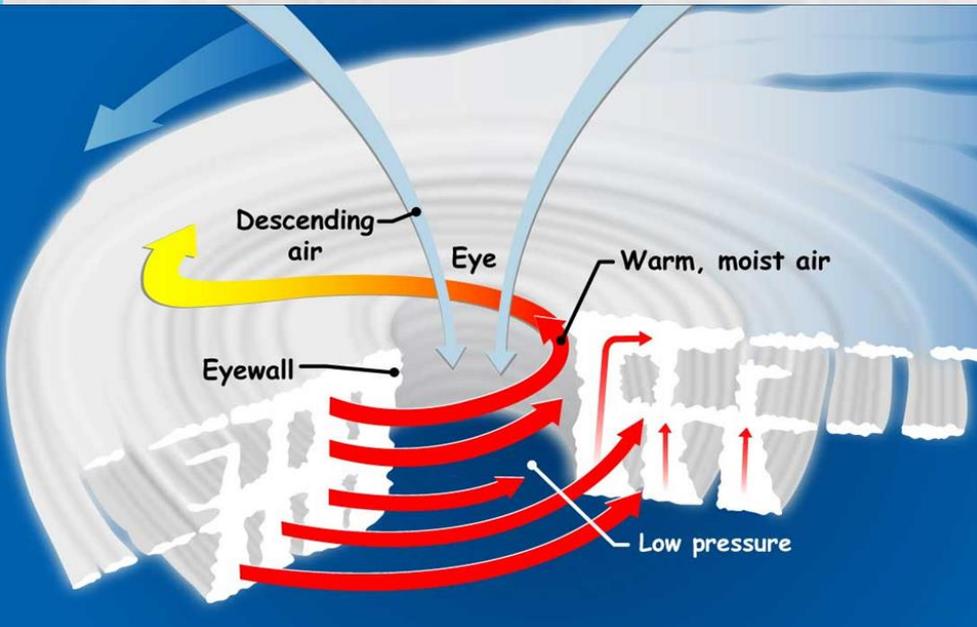
Tropical storms are found:

- Over tropical and sub-tropical waters between 5° and 30° north and south of the Equator.
- Where the temperature of the surface layer of ocean water is in excess of 26.5°C and at a depth of at least 50-60m.
- At least 500km away from the Equator where the **Coriolis effect**, or force, is strong enough to make the weather system spin.



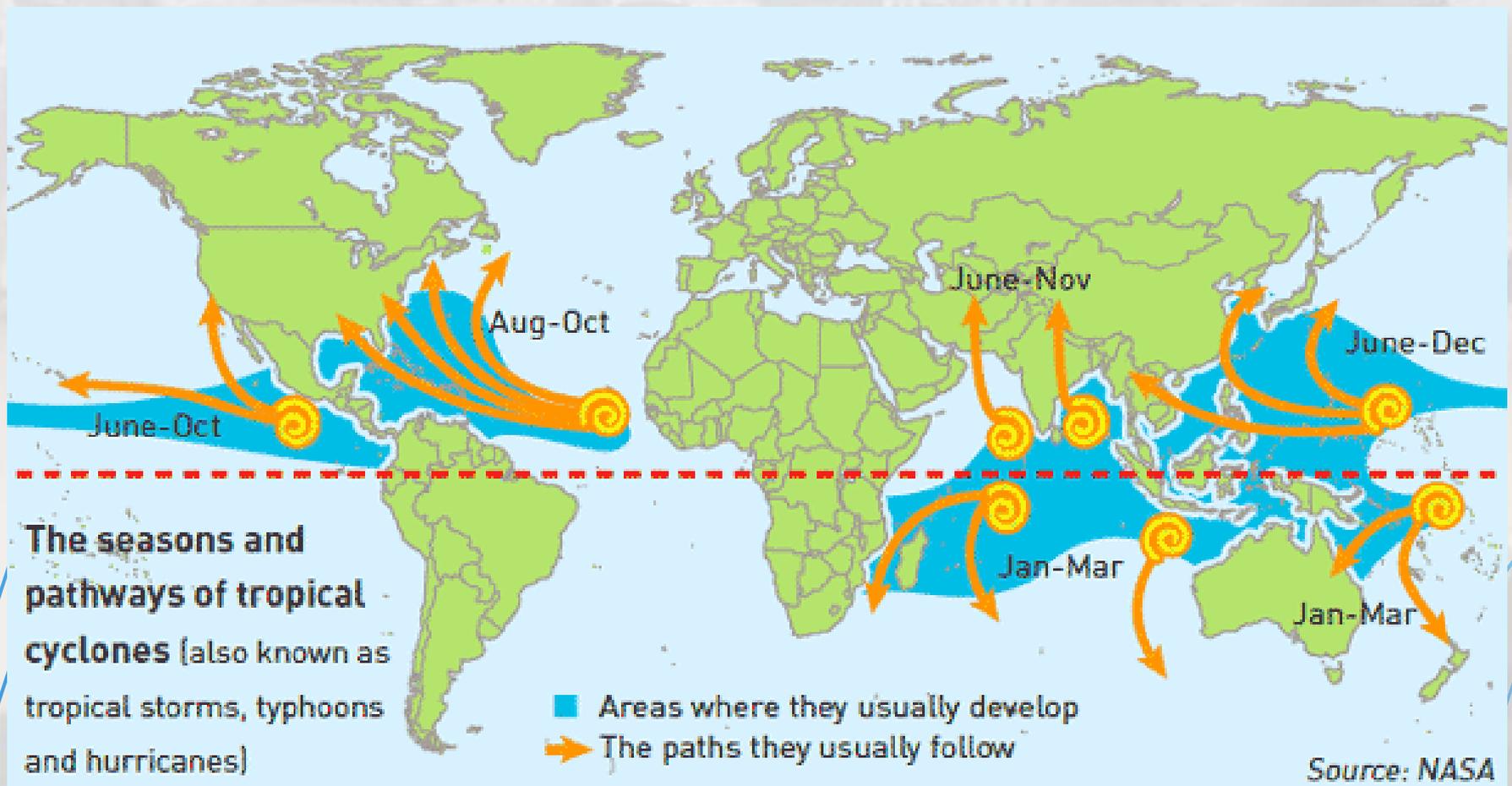
Tropical storms need:

- a movement in the air near the surface of the water.
- temperatures in the troposphere need to cool quickly enough for tall clouds to form through condensation.
- wind speeds to change slowly with height. If the speeds are greater in the upper atmosphere, the storm could be sliced in two.

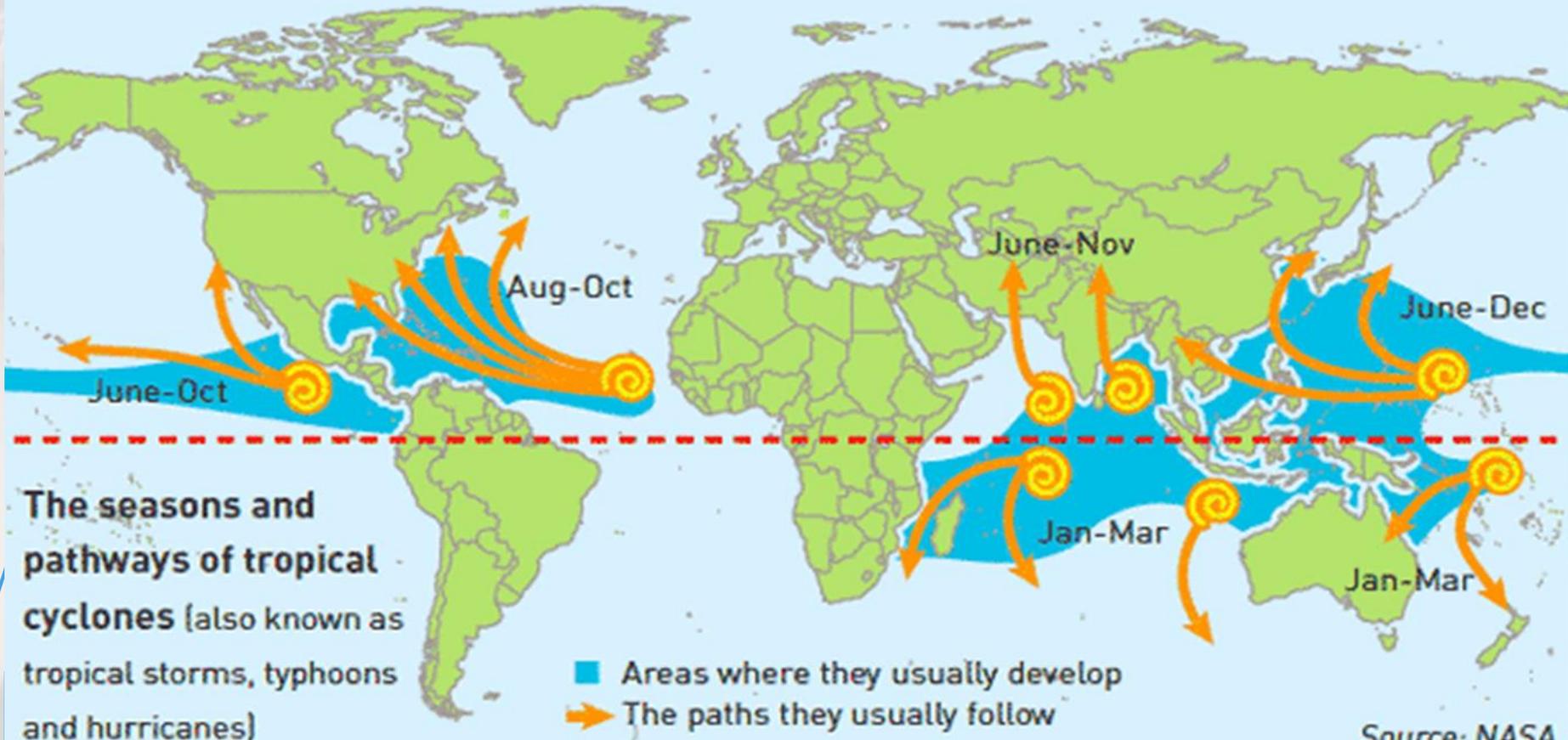


Over To You

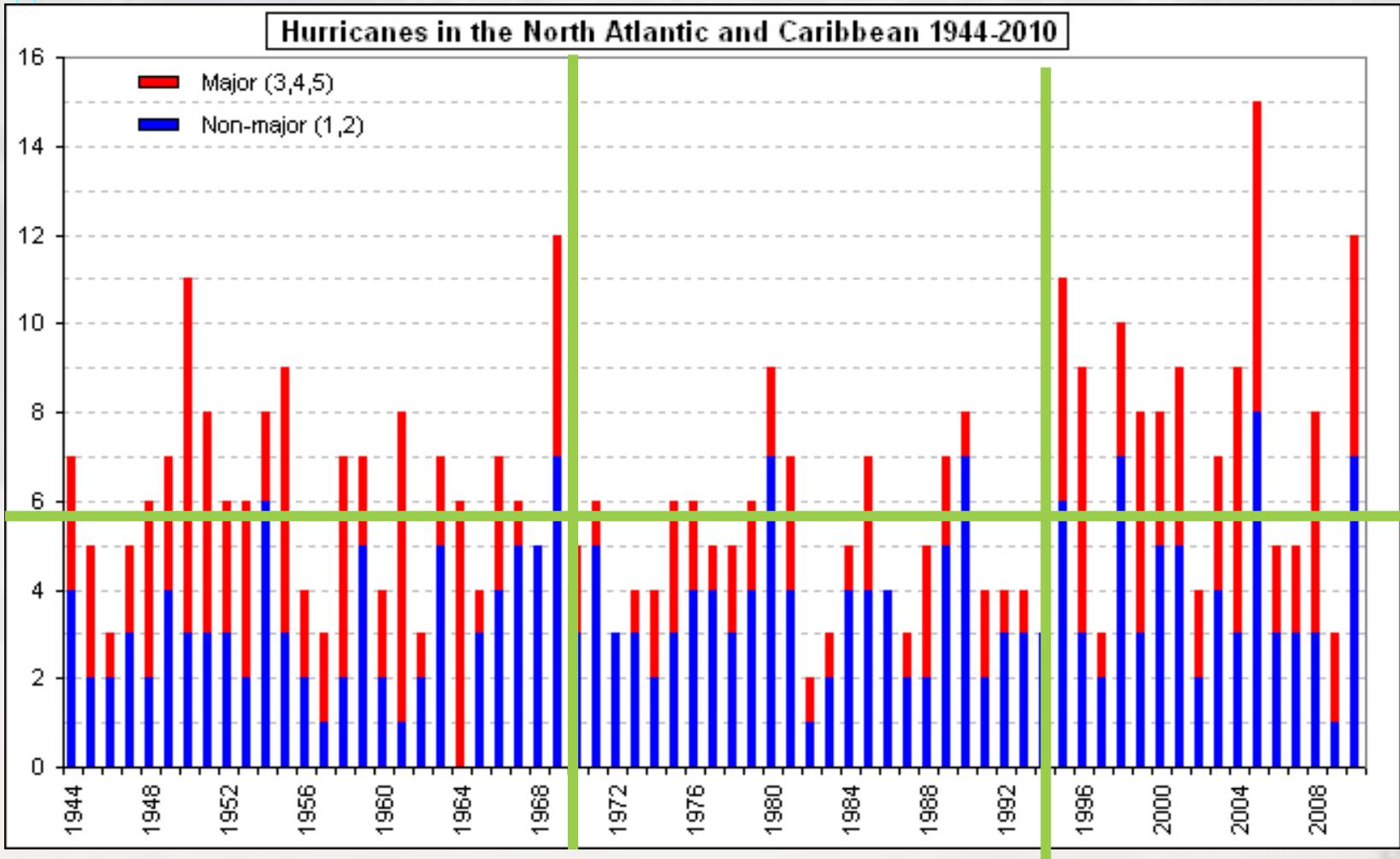
EASY: Name 9 countries affected by tropical storms. [include 3 countries for each type - hurricanes, cyclones and typhoons]. *Level 2*
HARDER: Describe the global distribution of tropical storms. *Level 5*



Which has the potential for **more powerful** tropical storms: the **northern hemisphere** or the **southern hemisphere**? **Why?**



Tropical Storms - changing frequency?



More frequent in general since 1994 due to climate change or just a cyclical process? What's your view? [inc evidence]
Increasing in severity? What's your view? [inc evidence]

Why do we have Tropical Storms?

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