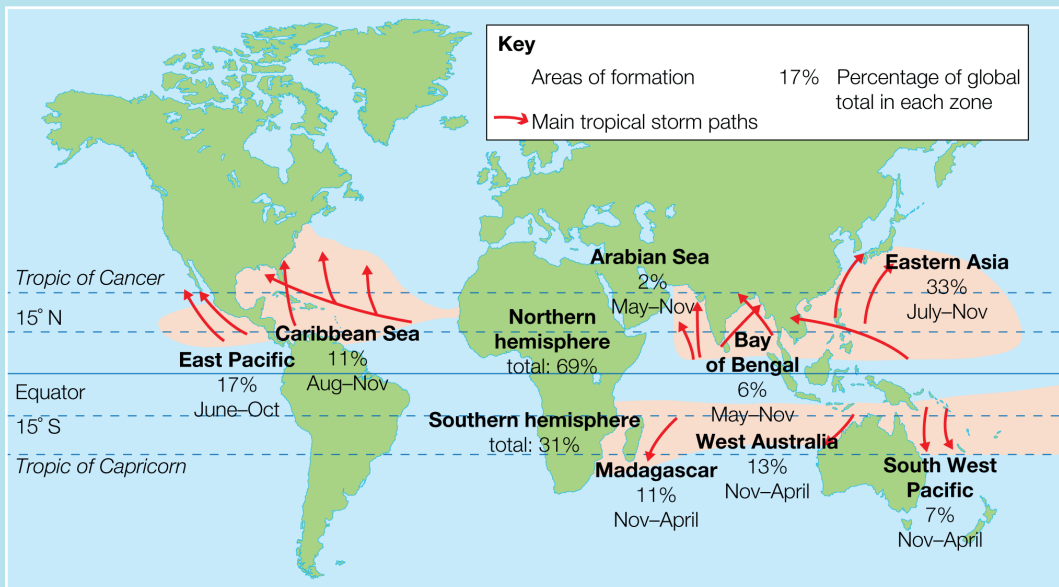


Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



### Introducing the question

Students can be introduced to this question using the Kerboodle assessment:

#### 3 On your marks

This will help students to unpick the question and to decide what they should and shouldn't include in their answer.

### Using the student resources

The student resources for this question are provided on the following pages. These resources provide flexible support for your students in answering the question. They can be printed and copied as required.

Student resources	Page
<p><b>Plan your answer</b></p> <p>This is a planning document to help students decide what to include and how to structure their answer.</p>	3–5
<p><b>Write your answer</b></p> <p>This provides an answer sheet for students to complete their answer on paper in class or at home.</p>	6–7
<p><b>Mark your answer</b></p> <p>This student-friendly checklist and mark scheme can be used for self- or peer-marking. It can also be used by students in assessing the sample answers.</p>	8–9
<p><b>Sample answers</b></p> <p>Three sample answers, at a range of levels, are given. These could be used in a number of ways to demonstrate to students how to maximise their marks for this question.</p>	10–14
<p><b>Marked sample answers</b></p> <p>These marked and annotated versions of the three sample answers can be used by students to compare with their own marked sample answers.</p>	15–19

Please note: Students do not automatically have access to the *On your marks* presentation or resources from Kerboodle. If you would like your students to access these resources, or to complete the *On your marks* question on-screen, you will need to assign these to your students in Kerboodle.

### Using the Kerboodle Markbook

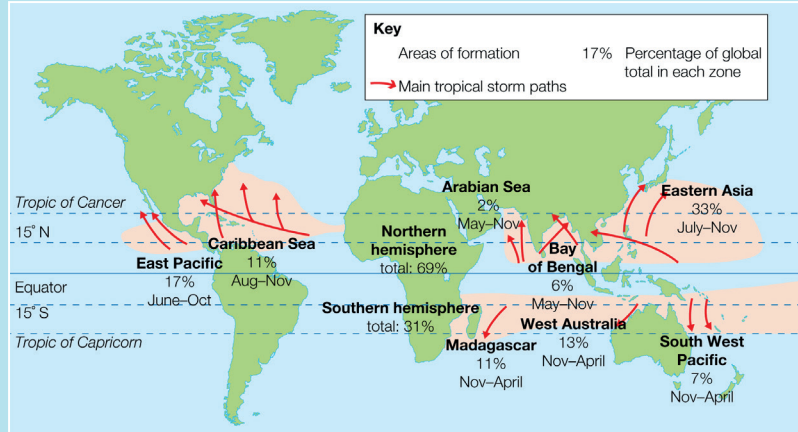
If you would like to use the Kerboodle Markbook to monitor progress and record student marks for this question, you must assign **3 On your marks** to the students from the assessment tab. Students can type their answer onto the final screen of the presentation and then submit this to the Kerboodle Markbook. Students' marks can then be entered into the Kerboodle Markbook and they will be informed automatically of their mark when they next log in to Kerboodle.

Timing	Spelling, punctuation and grammar (SPaG)
Under exam-style conditions, it should take students around <b>six</b> minutes to complete your answer to this question.	No additional marks are awarded for SPaG for this question.

Name \_\_\_\_\_

Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



Before attempting to answer the question, remember to BUG it.

- ✓ **Box** the command word.
- ✓ **Underline** the following:
  - the **theme**
  - the **focus**
  - any **evidence** required
  - the **number of examples** needed.
- ✓ **Glance back** over the question – to make sure you include everything in your answer.



**Evidence:** Use details from the map, including where and when tropical storms, their paths and the lengths of storm seasons.

**Evidence:** You must also support your answer with evidence from named examples and case studies you have learned about.

**Command word =** Give reasons **why** something happens. You will not get marks for pure description.

With the aid of the map and your own knowledge, **explain** the global distribution of tropical storms. (6 marks)

**Focus:** You must focus on the reasons for the **global pattern** of tropical storms, not on the processes that make the storms occur.

**Theme:** This question is related to the theme of Weather hazards, assessed in Paper 1, Section A of your exam. The question is compulsory.

continued overleaf

Name \_\_\_\_\_ Class \_\_\_\_\_

**PEEL your answer**

Use **PEEL** notes to structure your answer. This will help you to communicate your ideas to the examiner in the clearest way.

- **Point** – Make two or three points in detail, rather than lots of points in less detail. Don't use bullet points.
- **Explain** – Give reasons by using sentence starters such as: '*This is because ...*', '*One reason is ...*'.
- **Evidence** – Include facts and other details from named examples to back up your point. Each point – with explanation and evidence – should represent a separate PEE paragraph.
- **Link** – To link different points to each other, use PEE sentence starters such as: 'Another important point is ...' or 'Of more importance is ...'. Make sure your conclusion also links back to the question.



**Quality not quantity:** You will not be marked simply on the number of points you make, but on the quality of your answer. That means the quality of the content **and** how well you structure your answer.



**SPaG:** You are not awarded extra marks for spelling, punctuation and grammar for this question. However, you could miss out on marks if your spelling, punctuation or grammar is poor, so always check your answer carefully.

Name \_\_\_\_\_ Class \_\_\_\_\_

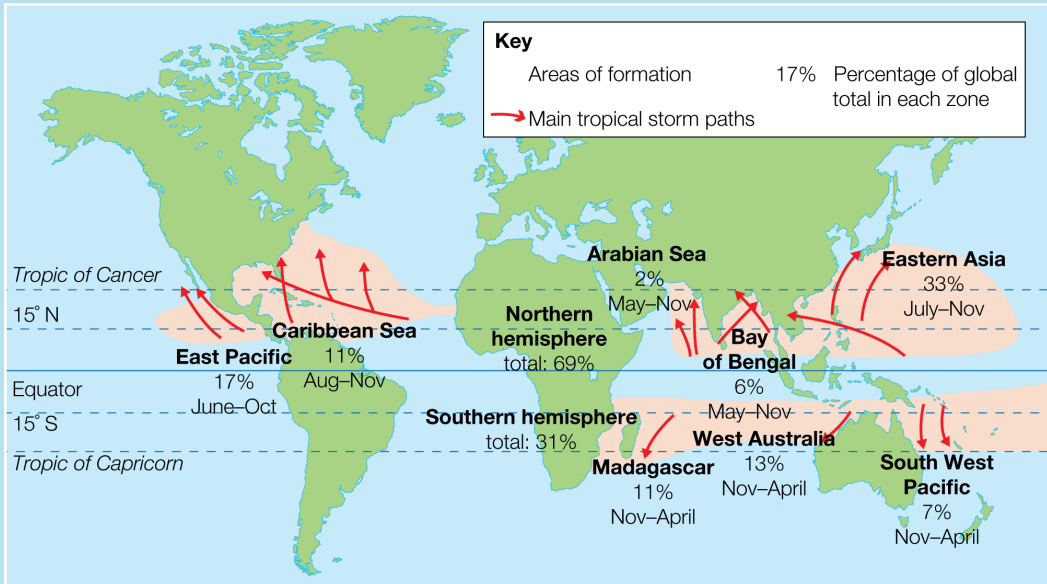
**Planning grid**

Use this planning grid to help you write high-quality paragraphs. Remember to include links to show how your points relate to each other and to the question.

	PEE paragraph 1	PEE paragraph 2	PEE paragraph 3
Point			
Explain			
Evidence			

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)




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continued overleaf

PLAN YOUR ANSWER

WRITE YOUR ANSWER

MARK YOUR ANSWER

SAMPLE ANSWERS

MARKED SAMPLE ANSWERS

Name \_\_\_\_\_ Class \_\_\_\_\_

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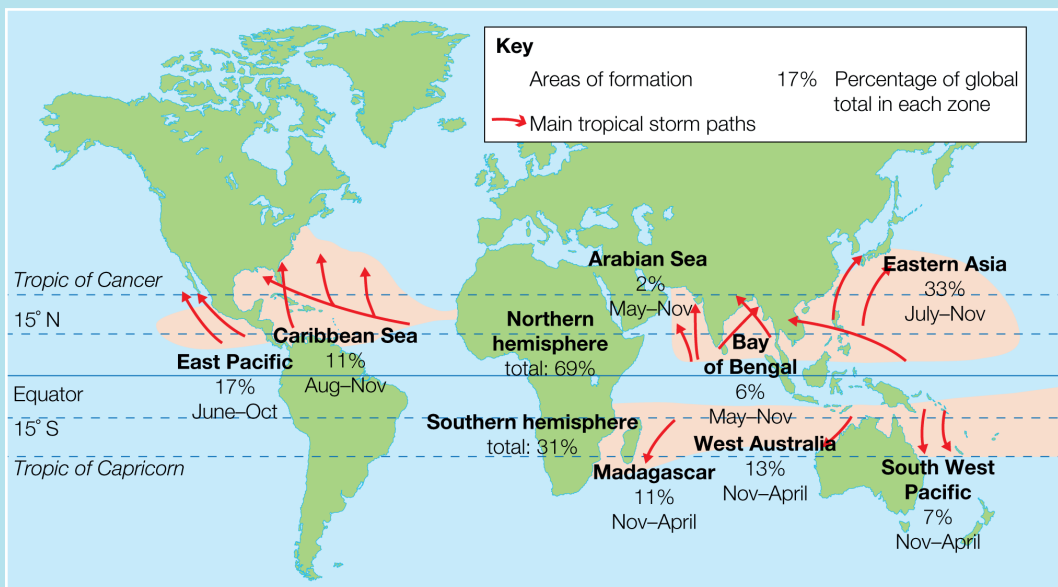


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<b>Strengths of the answer</b>			
<b>Ways to improve the answer</b>			
<b>Level</b>		<b>Mark</b>	

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



This question is assessing the following assessment objectives (AO).

<b>AO1</b>	Testing your knowledge of the global distribution of tropical storms	2 marks
<b>AO2</b>	Testing your understanding of the reasons for the global distribution of tropical storms	2 marks
<b>AO3</b>	Testing that you can apply your knowledge and understanding to describe and interpret geographical information, including from a map	2 marks

1. To help you to identify if the answer includes detailed points, first highlight or underline the:

-  **Points** in **red**
-  **Explanations** in **orange**
-  **Evidence** in **green**

2. Use the mark scheme below to decide what mark to give. Do not award marks for every point included – instead, choose a level and a mark based upon the overall quality of the content, measured against the assessment objectives.

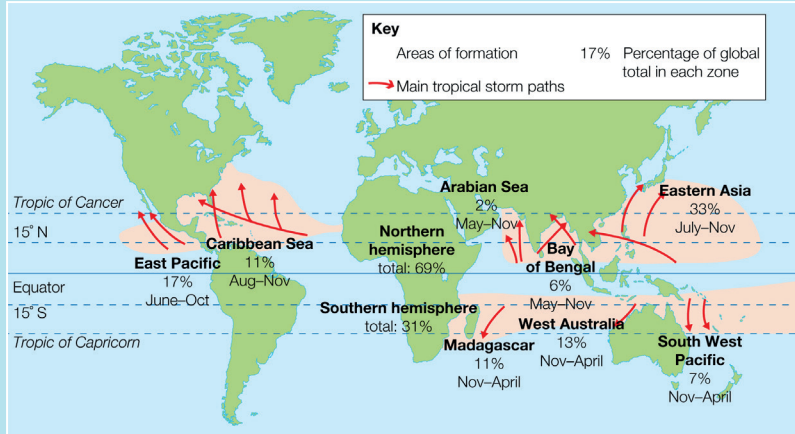


Name \_\_\_\_\_ Class \_\_\_\_\_

Level	Marks	Descriptor	Examples
<b>3 (Detailed)</b>	<b>5–6</b>	<p><b>AO1:</b> Shows detailed knowledge of how when, where and how often tropical storms occur around the world, referring to specific locations.</p> <p><b>AO2:</b> Shows thorough understanding of the reasons for the global distribution of tropical storms.</p> <p><b>AO3:</b> Shows thorough use of knowledge and understanding in well-developed points based on the evidence.</p>	<p>Tropical storms form over warm oceans, which is why they are found in the tropics. They form in summer and autumn when sea temperatures are at their highest (over 27°C). They are not found where there are cold ocean currents.</p> <p>Most tropical storms form 5–15° north and south of the Equator. In these tropical regions the intense heat makes the air rise rapidly and there is enough 'spin' from the Earth's rotation to whip this unstable air into a rotating storm.</p> <p>69% of tropical storms occur in the northern hemisphere. There are most storms in Eastern Asia, where they occur from May to December.</p>
<b>2 (Clear)</b>	<b>3–4</b>	<p><b>AO1:</b> Shows clear and accurate knowledge of some but not all aspects of the global distribution of tropical storms.</p> <p><b>AO2:</b> Shows some understanding of the reasons for the global distribution of tropical storms.</p> <p><b>AO3:</b> Shows reasonable use of knowledge and understanding in developed points based on the evidence.</p>	<p>Tropical storms are found in the tropics, where the seawater is at least 27°C. They are not found near the Equator because there is not enough unstable air.</p> <p>They form in summer and autumn, which is why they form from August to October in the Caribbean but from January to March off the coast of West Australia.</p>
<b>1 (Basic)</b>	<b>1–2</b>	<p><b>AO1:</b> Shows limited knowledge of only one or a few aspects of the global distribution of tropical storms.</p> <p><b>AO2:</b> Shows limited understanding of the reasons for the global distribution of tropical storms.</p> <p><b>AO3:</b> Shows limited use of knowledge and understanding in simple basic statements that are not developed and may be purely descriptive.</p>	<p>They are found in the Caribbean and the coast of the USA. The seawater is warm. The sea temperature is above 27°C. They move from sea to land.</p>

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



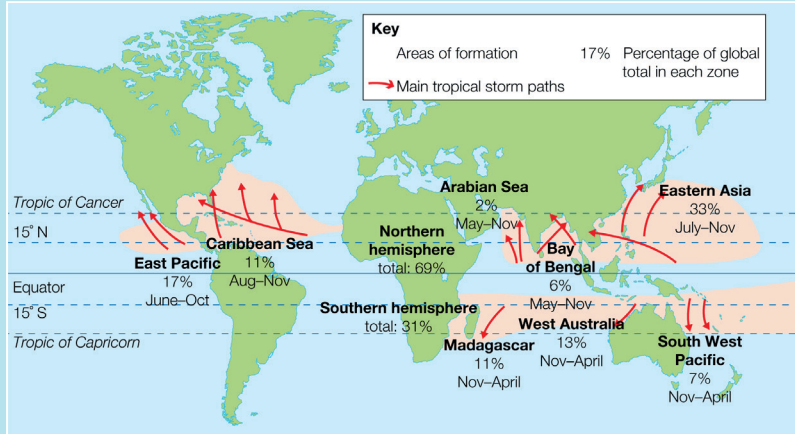
### Sample answer 1

They are found over warm water in the autumn and summer when temperatures are at their hottest. They are found in the tropics. There were 11% of the total number in the Caribbean Sea and 13% in Western Australia. Here they come between January and March in the winter. They move northwards.

<b>Strengths of the answer</b>			
<b>Ways to improve the answer</b>			
<b>Level</b>		<b>Mark</b>	

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



### Sample answer 2

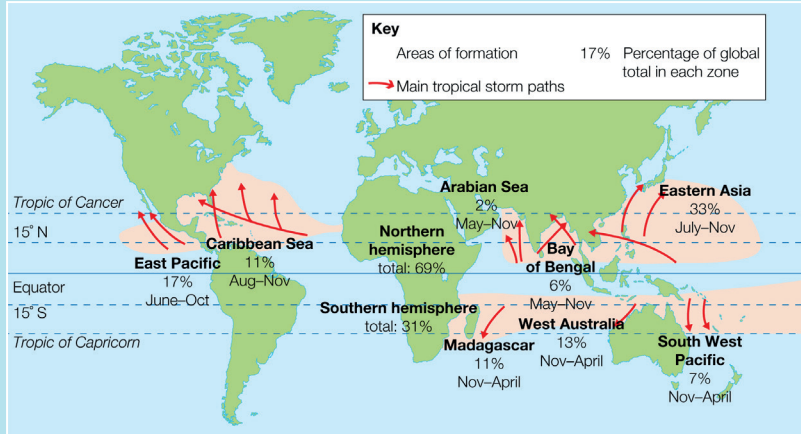
Tropical storms need warm water to warm up the air, causing it to become unstable and spiral upwards. The minimum temperature for this to happen is 27°C. This means tropical storms need to be in the Tropics, but not where there are cold oceans currents such as along the western coasts of South America and Africa. The warm waters of the Gulf Stream in the Caribbean and eastern USA, the Arabian Sea, Indian Ocean and western Pacific Ocean are ideal.

Over 60% of the total number of storms are in the Northern Hemisphere with the most common being the typhoons of Eastern Asia. Western Australia gets the most in the Southern Hemisphere. They are not found at the Equator because the rotation of the Earth there does not give enough spin to give the spiral of air needed.

<b>Strengths of the answer</b>			
<b>Ways to improve the answer</b>			
<b>Level</b>		<b>Mark</b>	

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



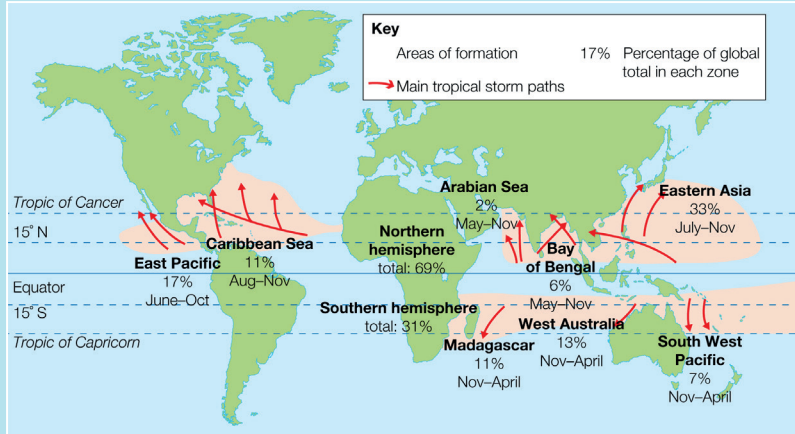
### Sample answer 3

Only 31% of the tropical storms are found south of the Equator. Most are to the north. They all move away from the Equator, so they move north in the northern hemisphere and south in the southern hemisphere. There are none near the Equator. They form over warm water. There are many in the Bay of Bengal and the Caribbean Sea.

Strengths of the answer			
Ways to improve the answer			
Level	Mark		

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



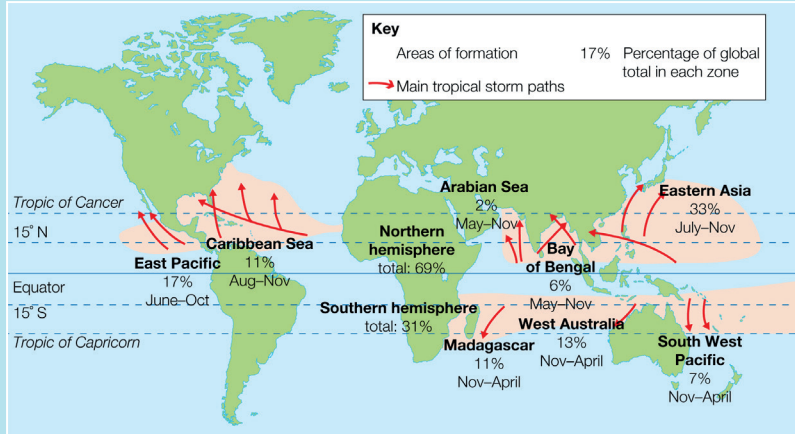
### Sample answer 4

When winds reach 120 kph, a tropical storm becomes a hurricane. They are found in the Caribbean and eastern USA. Typhoons are found in South-East Asia. They move from these areas and move northwards. Tropical storms are also found south of the Equator. They are called tropical storms because they are found in the tropics, where the sea has warm water. The warm water warms the air, causing it to rise and form a tropical storm. The spinning of the Earth causes them to rotate and move away from the tropics. They are not found near the Equator.

<b>Strengths of the answer</b>	
<b>Ways to improve the answer</b>	
<b>Level</b>	<b>Mark</b>

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



### Sample answer 5

Tropical storms are found over warm water reaching at least 27°C temperature. This explains why they are found in places like the Caribbean and the Indian Ocean. They are found in summer and autumn because that is when the temperatures are highest.

They are found at latitudes above 5° north and south of the Equator. Closer to the Equator there is insufficient spin resulting from the rotation of the Earth. This rotation tropical storms to move northwards in the northern hemisphere and southwards in the southern hemisphere.

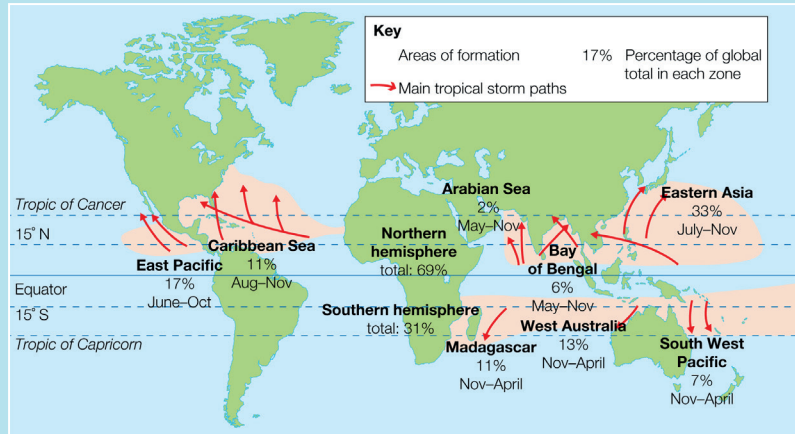
The typhoons of eastern Asia are the most common location with a third of the total number of tropical storms in the world because the season there lasts longer than in any other part of the world.

<b>Strengths of the answer</b>			
<b>Ways to improve the answer</b>			
<b>Level</b>		<b>Mark</b>	

Name \_\_\_\_\_

Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



### Sample answer 1

They are found over warm water in the autumn and summer when temperatures are at their hottest. They are found in the tropics. There were 11% of the total number in the Caribbean Sea and 13% in Western Australia. Here they come between January and March in the winter. They move northwards.

**Explanation:** Lacks detail to explain **why** they occur there.

**Evidence:** Uses the map, but lacks detail.

**Evidence:** Uses the map, but not explained or put into context.

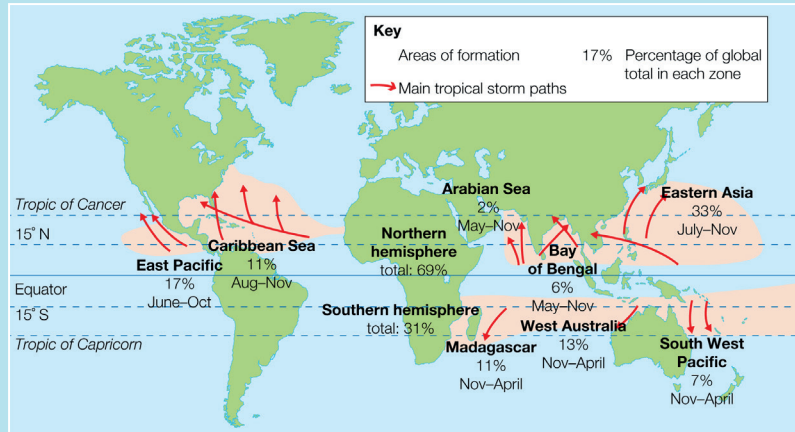
**Evidence:** Shows incorrect geographical understanding and inaccurate interpretation of the map.

**Feedback:** This basic answer is mostly descriptive and shows limited understanding of the reasons for the global distribution of tropical storms. There is evidence of use of the map, but these points are not developed or explained.

**Level = 1      Marks = 2**

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



### Sample answer 2

Tropical storms need warm water to warm up the air, causing it to become unstable and spiral upwards. The minimum temperature for this to happen is 27°C. This means tropical storms need to be in the Tropics, but not where there are cold oceans currents such as along the western coasts of South America and Africa. The warm waters of the Gulf Stream in the Caribbean and eastern USA, the Arabian Sea, Indian Ocean and western Pacific Ocean are ideal.

Over 60% of the total number of storms are in the Northern Hemisphere with the most common being the typhoons of Eastern Asia. Western Australia gets the most in the Southern Hemisphere. They are not found at the Equator because the rotation of the Earth there does not give enough spin to give the spiral of air needed.

**Explanation:** Gives clear and detailed explanation, using own knowledge.

**Point:** Shows good understanding of why storms occur in some places, making a link back to the question.

**Evidence:** Uses the map to give named locations.

**Evidence:** Uses the map to describe where storms occur but not the reasons for distribution.

**Explanation:** Gives a detailed explanation, using own knowledge.

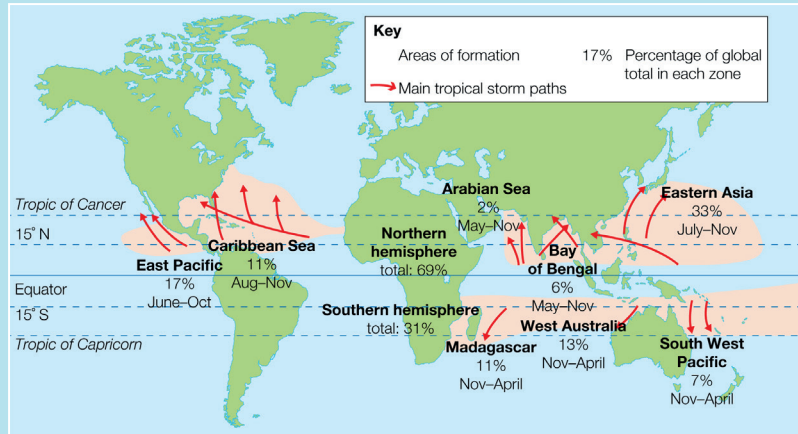
**Feedback:** This detailed answer uses information on the map and own knowledge to give thorough explanation of the location and frequency of tropical storms.

Level = 3      Marks = 6



Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



### Sample answer 3

Only 31% of the tropical storms are found south of the Equator. Most are to the north. They all move away from the Equator, so they move north in the northern hemisphere and south in the southern hemisphere. There are none near the Equator. They form over warm water. There are many in the Bay of Bengal and the Caribbean Sea.

**Evidence:** Uses the map to give basic description and link to the question, but gives no explanation of **why** storms occur where they do.

**Point:** Basic point that needs detailed explanation.

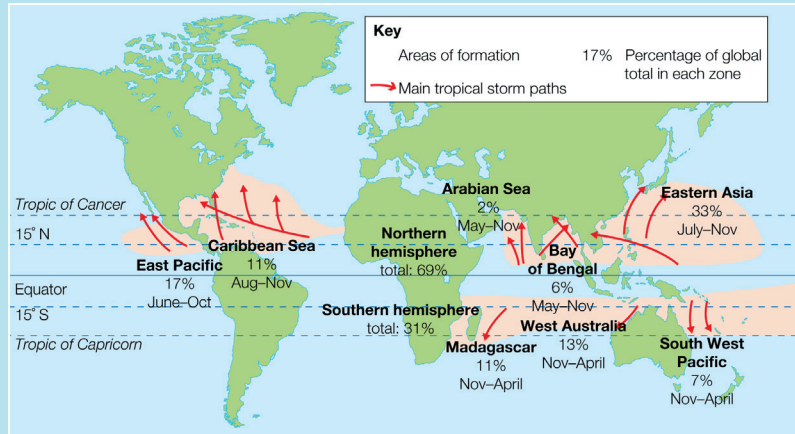
**Evidence:** Uses the map, but needs detailed explanation.

**Feedback:** This basic answer is mostly descriptive. Points are not developed and there is little explanation. It shows very little understanding of the reasons for the global distribution of tropical storms.

Level = 1      Marks = 1

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



#### Sample answer 4

When winds reach 120 kph, a tropical storm becomes a hurricane. They are found in the Caribbean and eastern USA. Typhoons are found in South-East Asia. They move from these areas and move northwards. Tropical storms are also found south of the Equator. They are called tropical storms because they are found in the tropics, where the sea has warm water. The warm water warms the air, causing it to rise and form a tropical storm. The spinning of the Earth causes them to rotate and move away from the tropics. They are not found near the Equator.

**Evidence:** Uses the map and links back to the question.

**Explanation:** Clear and detailed explanation of why storms occur in the tropics.

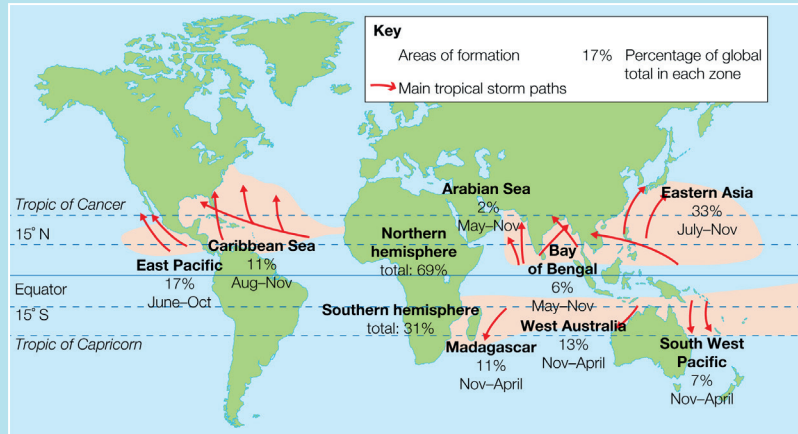
**Evidence:** Uses the map, but gives no explanation.

**Feedback:** This answer includes clear explanation, showing some understanding of the reasons for the global distribution of tropical storms. However, it does not refer to the frequency of storms.

Level = 2      Marks = 4

Name \_\_\_\_\_ Class \_\_\_\_\_

Using the map and your own knowledge, explain the global distribution of tropical storms. (6 marks)



### Sample answer 5

Tropical storms are found over warm water reaching at least 27°C temperature.

This explains why they are found in places like the Caribbean and the Indian Ocean. They are found in summer and autumn because that is when the temperatures are highest.

They are found at latitudes above 5° north and south of the Equator. Closer to the Equator there is insufficient spin resulting from the rotation of the Earth.

This rotation tropical storms to move northwards in the northern hemisphere and southwards in the southern hemisphere.

The typhoons of eastern Asia are the most common location with a third of the total number of tropical storms in the world because the season there lasts longer than in any other part of the world.

**Explanation:** Detailed explanation of why storms occur **where** they do, with evidence from the map and clear linking words.

**Explanation:** Detailed explanation of why storms occur **when** they do, with evidence from the map.

**Explanation:** Detailed explanation of storm paths.

**Evidence:** Uses the map to try to explain the frequency of storms, but without enough detail.

**Feedback:** This answer shows a thorough understanding of the reasons for the locations affected by tropical storms and when they occur. The frequency of storms is not so well explained. Perfection is not required for full marks.

Level = 3      Marks = 6