**Dangerous Earth | Tornado rotation | BBC Four**

Dr Helen Czerski explains what creates the rotation of a tornado

**Word Bank**

rotation • wind direction • wind shear • updraft • supercell

**While you watch**

As you watch the clip, note down the following:

* Three factors that contribute to the rotation of a tornado
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Two important things that Dr Helen Czerski says are not visible in the clip
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* One question you would like to know the answer to, based on the clip
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Quiz Time**

Put these words in the correct spaces:

updraft

wind shear

vertical

rotating

supercell

When the wind blows in different directions at different heights it is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
The consequence of wind shear is that air starts \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in a horizontal column.
\_\_\_\_\_\_\_\_\_\_\_\_\_\_ means air that comes up from the ground and pushes up into the storm.
When an updraft acts on rolling air it turns it into a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ column of rotating air.
This is what starts the rotation of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_, a storm with a rotating updraft.

**Exam-style question**

Explain how wind direction causes the rotation of a tropical storm.

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Dr Helen Czerski explains what creates the rotation of a tornado

**Answers**

**While you watch**

As you watch the clip, note down the following:

* Three factors that contribute to the rotation of a tornado
1. **e.g. Wind blowing in different directions at different heights.**
2. **e.g. Wind shear causes air to start rotating.**
3. **e.g. Updrafts turn the rolling air into a vertical rotating column of air.**
* Two important things that Dr Helen Czerski says are not visible in the clip
1. **The direction of the wind**.
2. **Updrafts**.
* One question you would like to know the answer to, based on the clip
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Quiz Time**

Put these words in the correct spaces:

updraft

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When the wind blows in different directions at different heights it is called **wind shear**.
The consequence of wind shear is that air starts **rotating** in a horizontal column.
**Updraft** means air that comes up from the ground and pushes up into the storm.
When an updraft acts on rolling air it turns it into a **vertical** column of rotating air.
This is what starts the rotation of a **supercell**, a storm with a rotating updraft.

**Exam-style question**

Explain how wind direction causes the rotation of a tropical storm.