



Topic/Objective CHAPTER:

NAME:

Tornadoes

pt 1

Pd: 1 2 4 5 other

DATE

Essential Question

How do tornadoes form?

Cue: Review:

Thoughts: Main Idea  
video

NOTE Taking AREA:

How do tornadoes form? by TED-Ed

People who  
Chase Storms

- Storm chaser
- track down tornadoes

Tornado

- \_\_\_\_\_ are rapidly, <sup>violent</sup> rotating, whirling columns of air that form inside storms
- connect w/ground via a funnel of clouds

How they  
Form

- Posing a huge threat to life and property
- mostly in \_\_\_\_\_ time b/c Temp  $\Delta$   $\frac{1}{t}$  \_\_\_\_\_ & \_\_\_\_\_ air
- form from powerful, towering TB
- Called: \_\_\_\_\_

↳ extremely \_\_\_\_\_

~~\_\_\_\_\_~~

- can reach over 50,000 ft
- bring high force winds
- hailstones (giant)
- Flooding
- great flashes of lightning
- Breed Tornadoes but only under specific conditions are in place.
- are associated w/sever TB

hailstone

- \_\_\_\_\_ of \_\_\_\_\_ that is caught in the convection current until gravity pulls it down to the surface; OR

CONVECTION CURRENT WEAKENS

- Partly because the presence of supercooled H<sub>2</sub>O drops



Topic/Objective CHAPTER:

NAME:

DATE

Cue: Review:  
Thoughts: Main Idea

NOTE Taking AREA:

Ingredient  
for a tornado  
to form

- 1) \_\_\_\_\_  
- any storm is formed when  
Condensation occurs,

Condensation: - by products of the clouds which  
release heat

- Heat is the energy that drives  
huge upward drafts of Air.

- more condensation the more powerful  
the updrafts.

- as air climbs  
it can change  
direction.



- at the BASE of cloud... lots of moisture  
will allow storm to feed off later.

Why Air rotates horizontally

- Thus the Sudden  $\Delta$  in wind speed and  
direction is the cause of why air rotates  
horizontally. this is known as: \_\_\_\_\_

SUMMARY:

Microburst is a \_\_\_\_\_ downdraft that affect  
an area \_\_\_\_\_ than \_\_\_\_\_ Km

\_\_\_\_\_ are violent downdrafts of air that  
are concentrated in 1 local area



Topic/Objective CHAPTER:

pt 2

NAME:

Pd: 1 2 4 5 other

# Tornadoes

DATE

## Essential Question

Cue: Review:  
Thoughts: Main Idea

NOTE Taking AREA:

Ingredient  
for a tornado  
to form  
Vortex

- 2) a \_\_\_\_\_ can develop which air is pulled upwards.

- wide, tall, tube of spinning air.

- a tornado's characteristic  
↳ spinning

- Low Pressure spinning  
cloud from the sky

- Air is removed from center



ground

Rear flank  
downdraft

- wrapping around on the  
back side is cool, dry,  
sinking air, which  
creates "Rear Flank downdraft"



ground

- violent downdrafts that are local to the area  
- This created a temperature difference  
b/t air inside mesocyclone & air outside  
which creates level of instability that  
allows a tornado to thrive.

- Lower Part of mesocyclone becomes  
tighter, increasing the speed of winds  
and if it lowers toward the ground,  
it sucks it in & turns it into a rotating  
wall of cloud. this is Extreme Pressure Gradient

- the center ~~Area~~ of air is \_\_\_\_\_

NOTES CONTINUE ON OTHER SIDE

10/6/2020



Topic/Objective CHAPTER:

NAME:

DATE

Cue: Review:  
Thoughts: Main Idea

NOTE Taking AREA:

- the second the tube touches the ground, it is called a: \_\_\_\_\_

- you see tornado b/c of the dust & debris in the air.

- Small in size

- Short lived (usually)

- wind speed between 65 to 110 mph

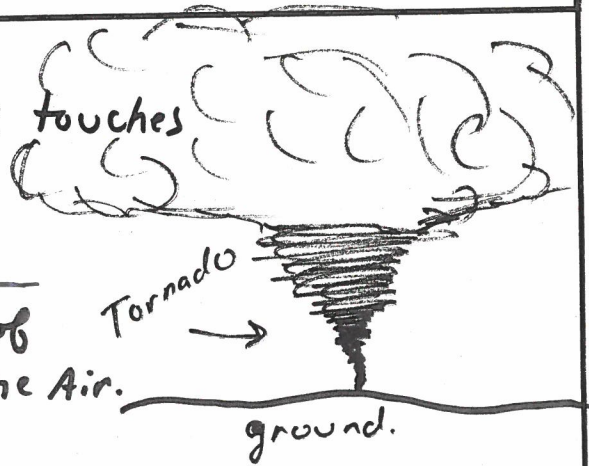
- Some can go ~~over 1000~~ <sup>over 1000</sup> long with wind speed up to 200 mph

- 200 mile path unbroken

- 73 mph (at 1pt) and over 1 mile wide

- Tornado ends when the temperature differences disappears & conditions grow more stable, or the moisture in the air dries up, its momentum is lost and draws up inside

most occur in the Central ( \_\_\_\_\_ ) or aka. \_\_\_\_\_ b/c \_\_\_\_\_ air collides w/ \_\_\_\_\_ air



See it?

Tornado ends

SUMMARY:

Tornadoes form when