



# PRINT & GO!

## Clue # 3

### DID YOU KNOW?

Tornadoes have been seen even in the world except Antarctica.

There are five different types of tornadoes; land-spouts, water-spouts, multiple vortices, gustnado and supercell. A supercell is large thunderstorm that can produce some of the most powerful tornadoes.

A waterspout forms over warm water. Waterspouts can form from cumulus or cumulonimbus clouds and are most common in the subtropical regions.

A landspout is a tornado that forms from a cumulus cloud and doesn't have a mesocyclone (rotating storm) present. They are often weak and short-lived.

They form when strong gusts of wind from the downdraft of a storm encounter the ground and create a small vortex of rotating air. They can cause brief and relatively minor damage.

Multiple-vortex tornadoes are characterized by two or more rotating columns of air within the same tornado. These tornadoes tend to be more intense and cause more widespread damage.

Tornado conditions are most often found in the central and southern United States in an area known as "Tornado Alley". The warm, humid air from the Gulf of Mexico clashes with cool, dry air from the Rocky Mountains and Canada. Tornado Alley includes Kansas, Texas, Oklahoma, South Dakota and Nebraska.

Where is Tornado Alley?

- A. Central, Southern United States
- B. Lower Canada
- C. Oregon, Idaho and Colorado
- D. North Eastern United States

The term "Tornado Alley" was first used in...



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1

READ THE  
PASSAGE

2

ANSWER  
QUESTIONS

3

DECODE  
PUZZLES

# WHAT'S INCLUDED?

- ✓ 4 Half Page Passages
- ✓ 4 Puzzle Decoders
- ✓ Differentiated Version
- ✓ Completion Signs
- ✓ 10 Multiple Choice
- ✓ Teacher Answer Key
- ✓ Teacher Guide
- ✓ Puzzle Hints

**Clue # 1**  
Did you know?

**Clue # 2**  
Did you know?

**Clue # 3**  
Did you know?

**Clue # 4**  
Hint: → then ↓  
Did you know?

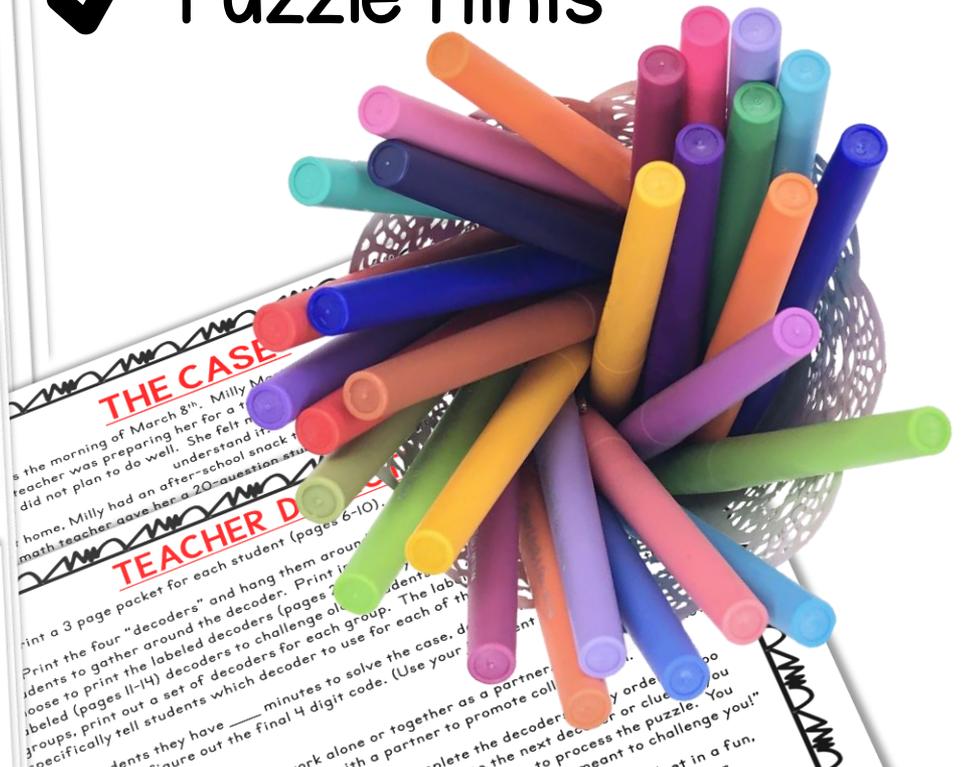
**4 Digit Code**  
First number of code:  
The number of leaves on the largest clover ever found

|        |        |
|--------|--------|
| A =    | N =    |
| B = 11 | O = 12 |
| C = 6  | P =    |



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|---|---|---|---|---|---|
| A | B | C | J | K | L |
| D | E | F | M | N | O |

**CONGRATULATIONS SLEUTH!**  
YOU SUCCESSFULLY  
COMPLETED THE



# 4 PASSAGES

## Clue # 1

### DID YOU KNOW?

A tornado that once hit Oklahoma took a motel sign that was later found in Arkansas. Tornadoes can be extremely dangerous because they are one of the most powerful types of weather.

In order for a vortex of wind to be officially called a tornado it must touch the ground. Tornadoes typically look like a narrow funnel reaching from the clouds down to the ground. Unfortunately, scientist cannot predict tornadoes too far in advance.

The National Oceanic and Atmospheric Administration (NOAA) is a US government agency responsible for monitoring and forecasting weather conditions, including tornadoes. NOAA operates the National Weather Service (NWS) which provides warnings and forecasts for severe weather events, or severe

## Clue # 3

### DID YOU KNOW?

Tornadoes have been seen everywhere in the world except Antarctica. There are five different types of tornadoes: land-spouts, water-spouts, multiple vortices, gustnado and supercell. A supercell is large thunderstorm that can produce some of the most violent tornadoes.

A waterspout forms over warm water. Waterspouts can form from cumulus or cumulonimbus clouds and are most common in tropical and subtropical regions. A landspout is a tornado that forms from the downdraft of a mesocyclone (rotating storm system) when strong gusts of wind from the downdraft of a short-lived storm encounter the ground and create a small vortex of rotating air. They can likely cause minor damage.

Multiple tornadoes can occur within the same storm system. Tornadoes in the United States are most often found in the central and southern United States in an area known as "Tornado Alley". The warm, humid air from the Gulf of Mexico clashes with cool, dry air from the Rocky Mountains and Canada. Tornado Alley includes Kansas, Texas, Oklahoma, South Dakota and Nebraska.

Where is Tornado Alley?  
A. Central, Southern United States  
B. Lower Canada  
C. Oregon, Idaho and Colorado  
D. North Eastern United States

The term "Tornado Alley" was first used in...



## Clue # 2

### DID YOU KNOW?

Tornadoes may appear different colors depending on the local environment. Tornadoes occur inside giant thunderstorms known as "supercells." These powerful storms form when warm, moist air along the ground rushes up to merge with cooler, drier air. A supercell is characterized by a rotating updraft. It takes more than just a thunderstorm and some clouds to cause a tornado.

First, a large thunderstorm occurs in a cumulonimbus cloud. Cumulonimbus clouds are very tall thunderstorm clouds. Next, a shift in wind direction and wind speed will occur causing swirls of air. The swirling air begins to funnel and pulls up from the ground. As the rising air cools, the moisture it contains condenses into a thundercloud. Most tornadoes are born in this way.

## Clue # 4

Hint: → then ↓

### DID YOU KNOW?

The fastest winds on Earth occur inside tornadoes.

Tornadoes can happen any time of year, but most often during the spring and early summer. The United States is home to the most frequent tornadoes in the world. Tornadoes in the northern hemisphere usually rotate counter-clockwise while tornadoes in the southern hemisphere usually rotate clockwise.

To measure the wind speed and damage caused by a tornado, scientists use the Fujita Scale. The scale was developed in the 1970s by Dr. Torrey Theodore Fujita and is used by meteorologists and storm researchers to classify tornadoes based on the type and amount of damage they cause.

The Fujita Scale, or Enhanced Fujita Scale, classifies tornadoes based on EF-0 to EF-5. The Fujita scale was replaced with the Enhanced Fujita scale in 2007.

An EF-0 tornado is a weak tornado with winds around 73 to 85 miles per hour. Most tornadoes are classified as EF-1. An EF-1 tornado has winds between 86 to 112 miles per hour and cause moderate damage. Only about 1 percent of tornadoes exceed 261 miles per hour. EF-5, causing "incredible damage." Winds that exceed 261 miles per hour are extremely rare. EF-5 tornadoes cause severe damage. The highest level on the Fujita scale is EF-5. It is important to note that the Fujita Scale is a subjective system and that the wind speeds of a tornado are difficult to measure. What is the most common tornado?

- A. EF-0
- B. EF-1
- C. EF-2
- D. EF-5

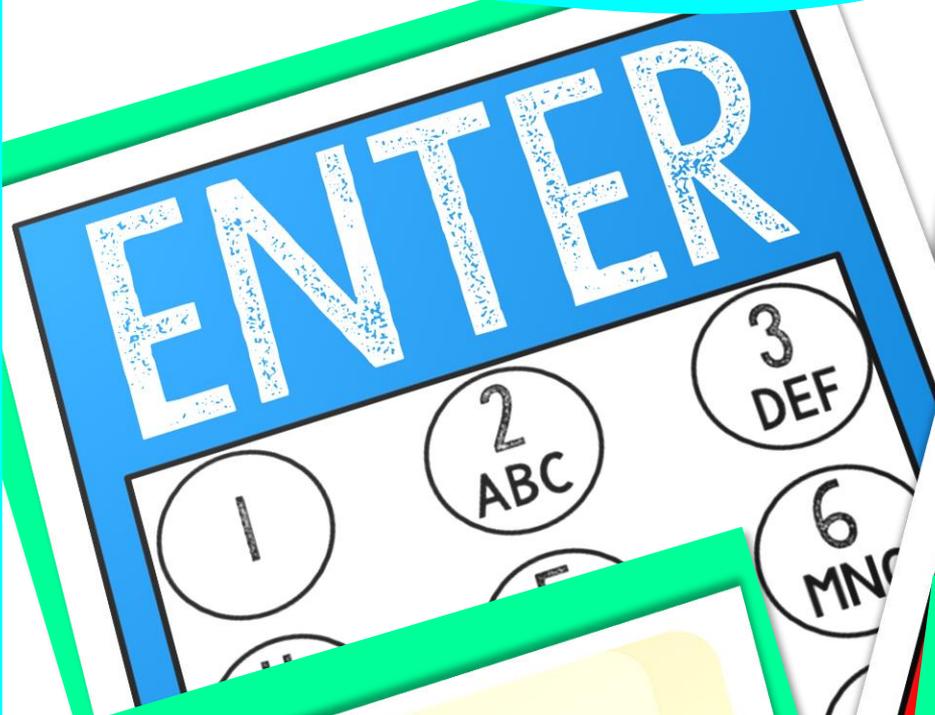
In 1971, the original Fujita Scale...

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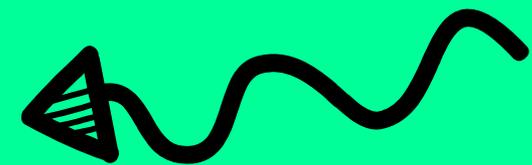
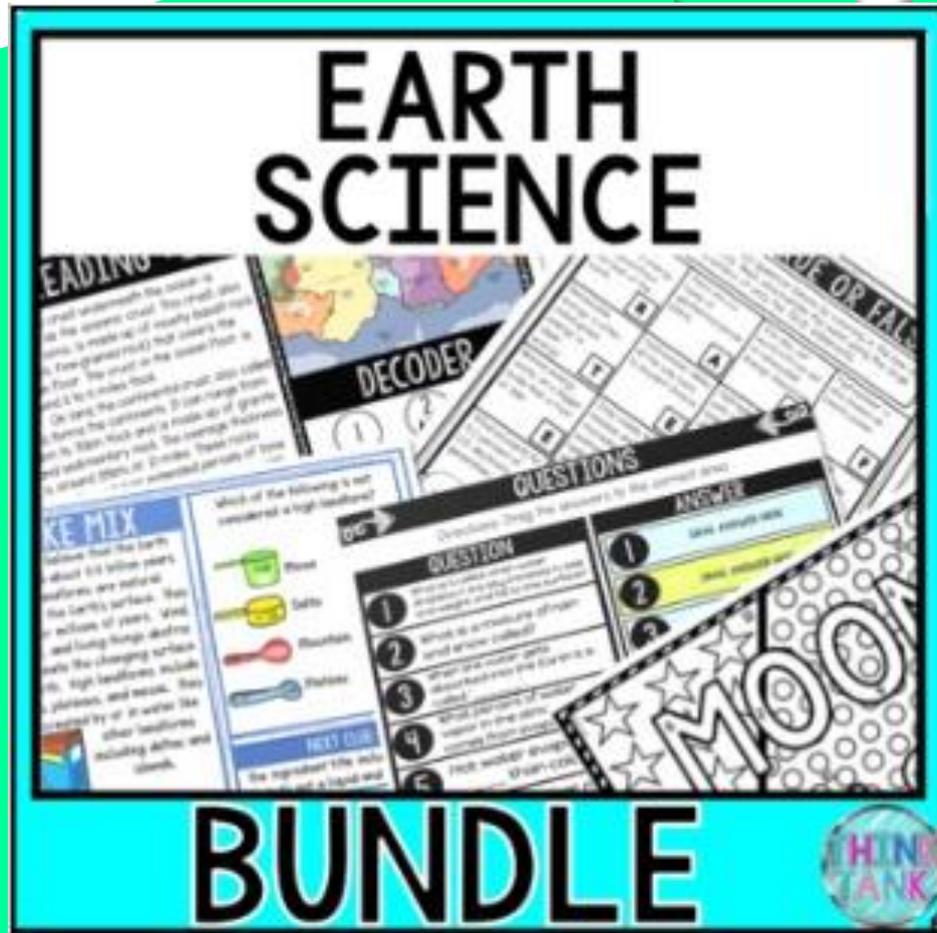




# PROPS



# ALSO TRY



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MORE!**

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