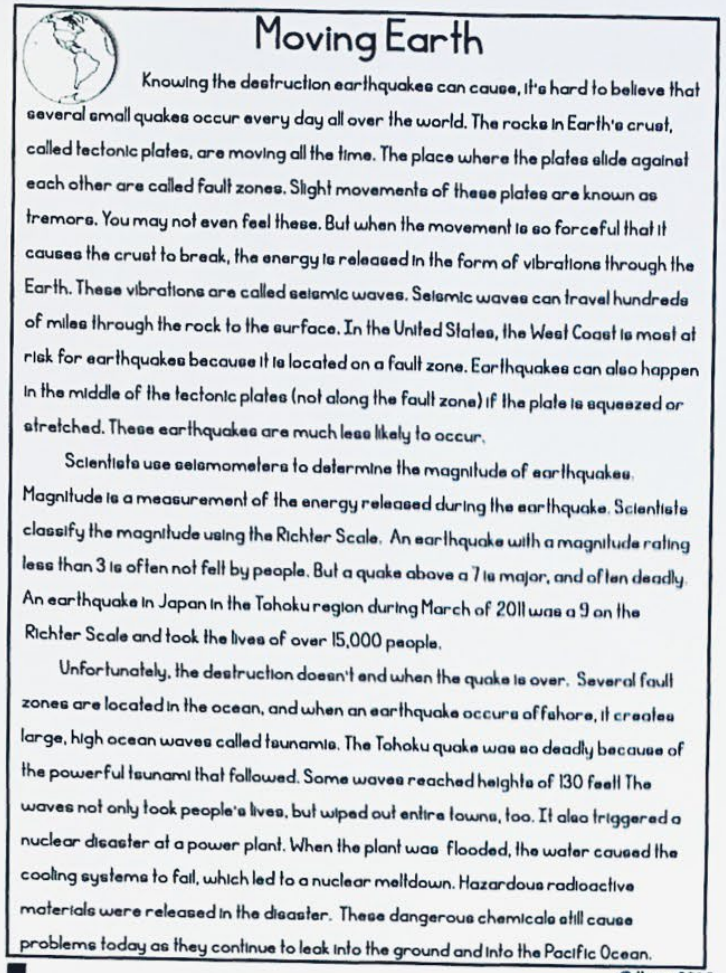
PAIRED TEXTS

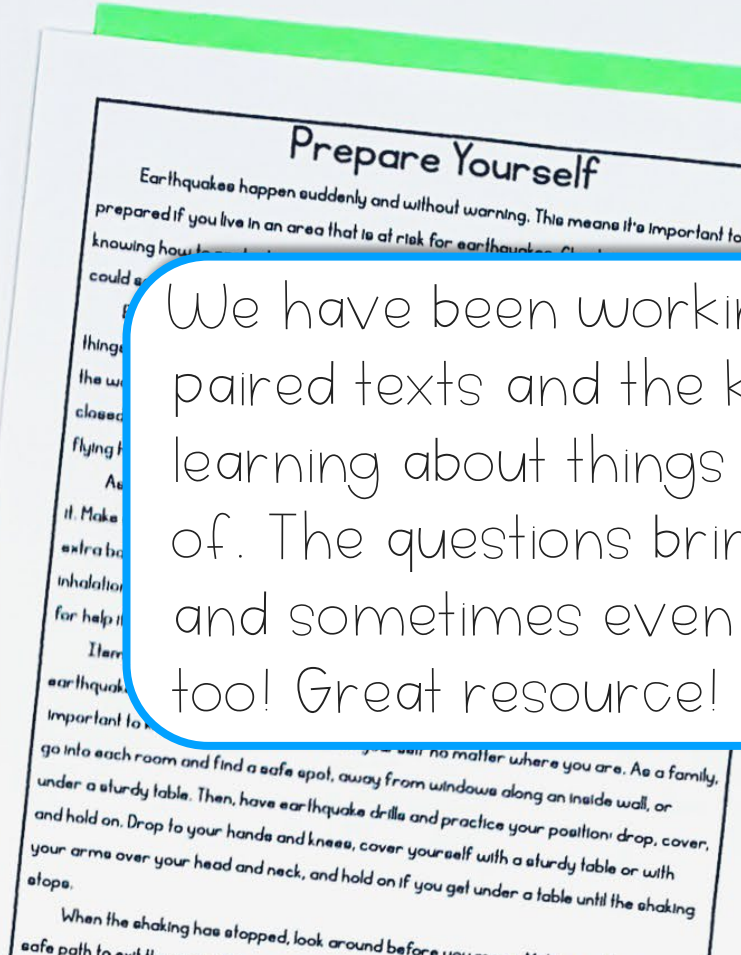


Moving Earth

Knowing the destruction earthquakes can cause, it's hard to believe that several small quakes occur every day all over the world. The rocks in Earth's crust, called tectonic plates, are moving all the time. The place where the plates slide against each other are called fault zones. Slight movements of these plates are known as tremors. You may not even feel these. But when the movement is so forceful that it causes the crust to break, the energy is released in the form of vibrations through the Earth. These vibrations are called seismic waves. Seismic waves can travel hundreds of miles through the rock to the surface. In the United States, the West Coast is most at risk for earthquakes because it is located on a fault zone. Earthquakes can also happen in the middle of the tectonic plates (not along the fault zone) if the plate is squeezed or stretched. These earthquakes are much less likely to occur.

Scientists use seismometers to determine the magnitude of earthquakes. Magnitude is a measurement of the energy released during the earthquake. Scientists classify the magnitude using the Richter Scale. An earthquake with a magnitude rating less than 3 is often not felt by people. But a quake above a 7 is major, and often deadly. An earthquake in Japan in the Tohoku region during March of 2011 was a 9 on the Richter Scale and took the lives of over 15,000 people.

Unfortunately, the destruction doesn't end when the quake is over. Several fault zones are located in the ocean, and when an earthquake occurs offshore, it creates large, high ocean waves called tsunamis. The Tohoku quake was so deadly because of the powerful tsunami that followed. Some waves reached heights of 130 feet! The waves not only took people's lives, but wiped out entire towns, too. It also triggered a nuclear disaster at a power plant. When the plant was flooded, the water caused the cooling systems to fail, which led to a nuclear meltdown. Hazardous radioactive materials were released in the disaster. These dangerous chemicals still cause problems today as they continue to leak into the ground and into the Pacific Ocean.



Prepare Yourself

Earthquakes happen suddenly and without warning. This means it's important to be prepared if you live in an area that is at risk for earthquakes. Check knowing how to

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no matter where you are. As a family, go into each room and find a safe spot, away from windows along an inside wall, or under a sturdy table. Then, have earthquake drills and practice your position: drop, cover, and hold on. Drop to your hands and knees, cover yourself with a sturdy table or with your arms over your head and neck, and hold on if you get under a table until the shaking stops.

When the shaking has stopped, look around before

safe path to

We have been working through these paired texts and the kids love reading and learning about things they weren't aware of. The questions bring up great discussions and sometimes even research opportunities too! Great resource!

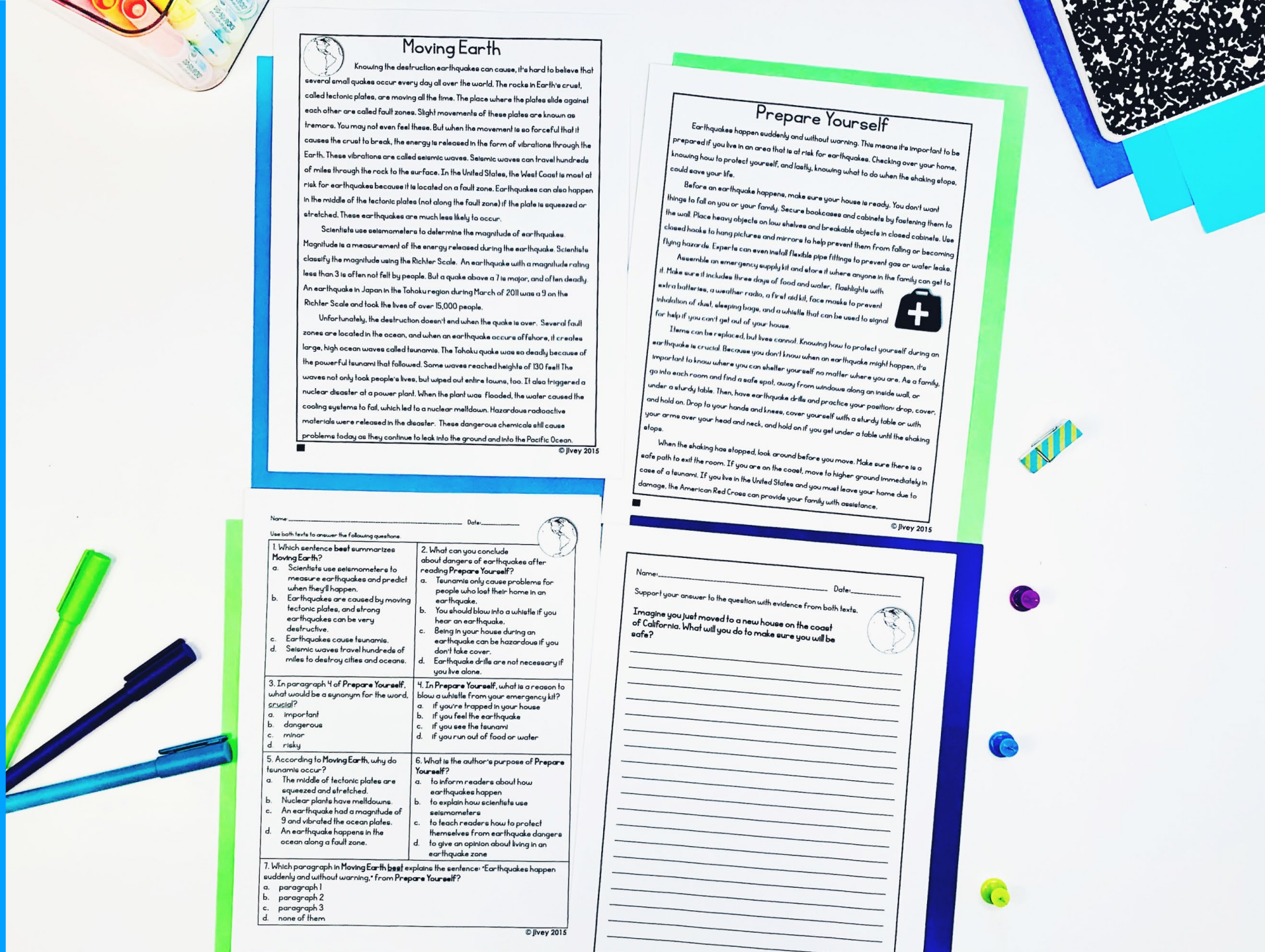
Jennifer W., 4th Grade Teacher

WAYS TO USE THIS RESOURCE:

whole group or small group modeling

read and annotate the texts together, then provide the questions for comprehension check, allowing students to use the annotated passages

completely independent practice for students reading above 4th-5th grade level



FOR EVERY PAIR:

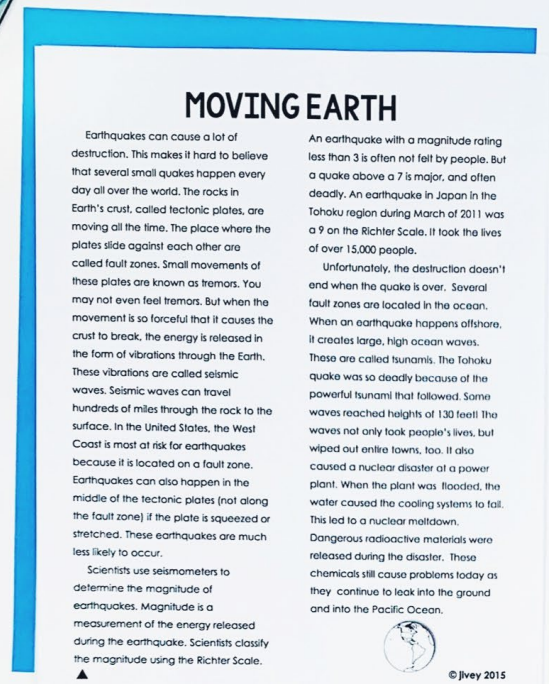
two levels of each passage for differentiation

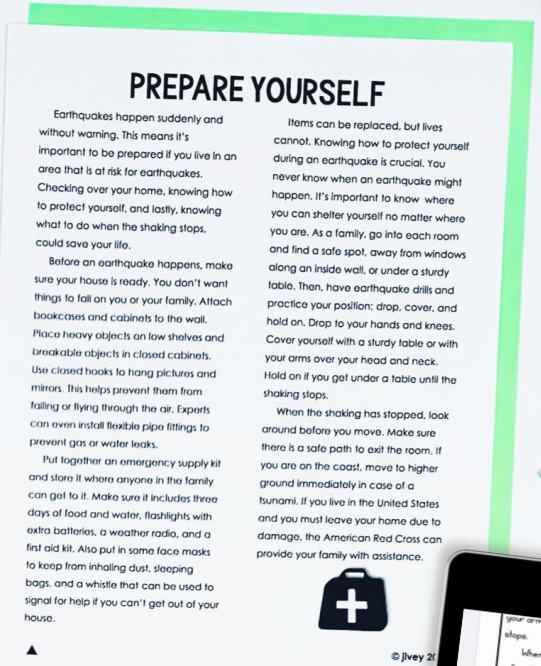
digital (self-grading) and printable formats

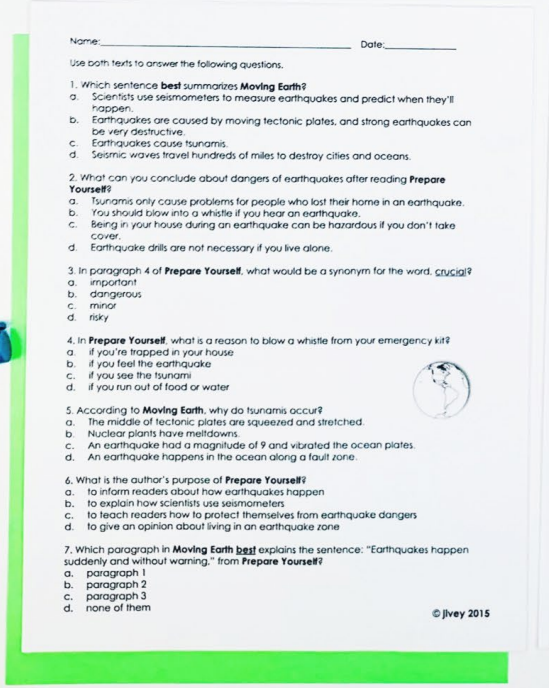
seven multiple choice questions (each question assessing a different standard)

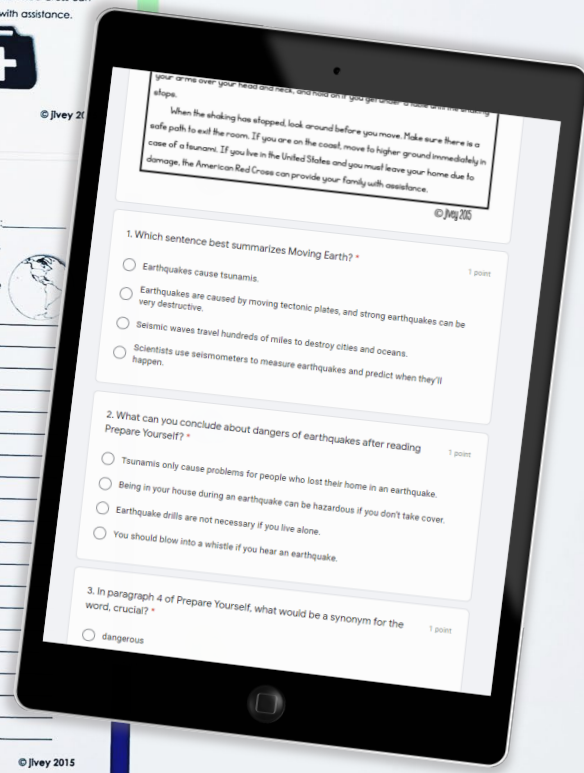
one constructed response essay prompt

two styles of articles: 2-column and full page









TWO LEVELS PROVIDED OF EVERY PASSAGE

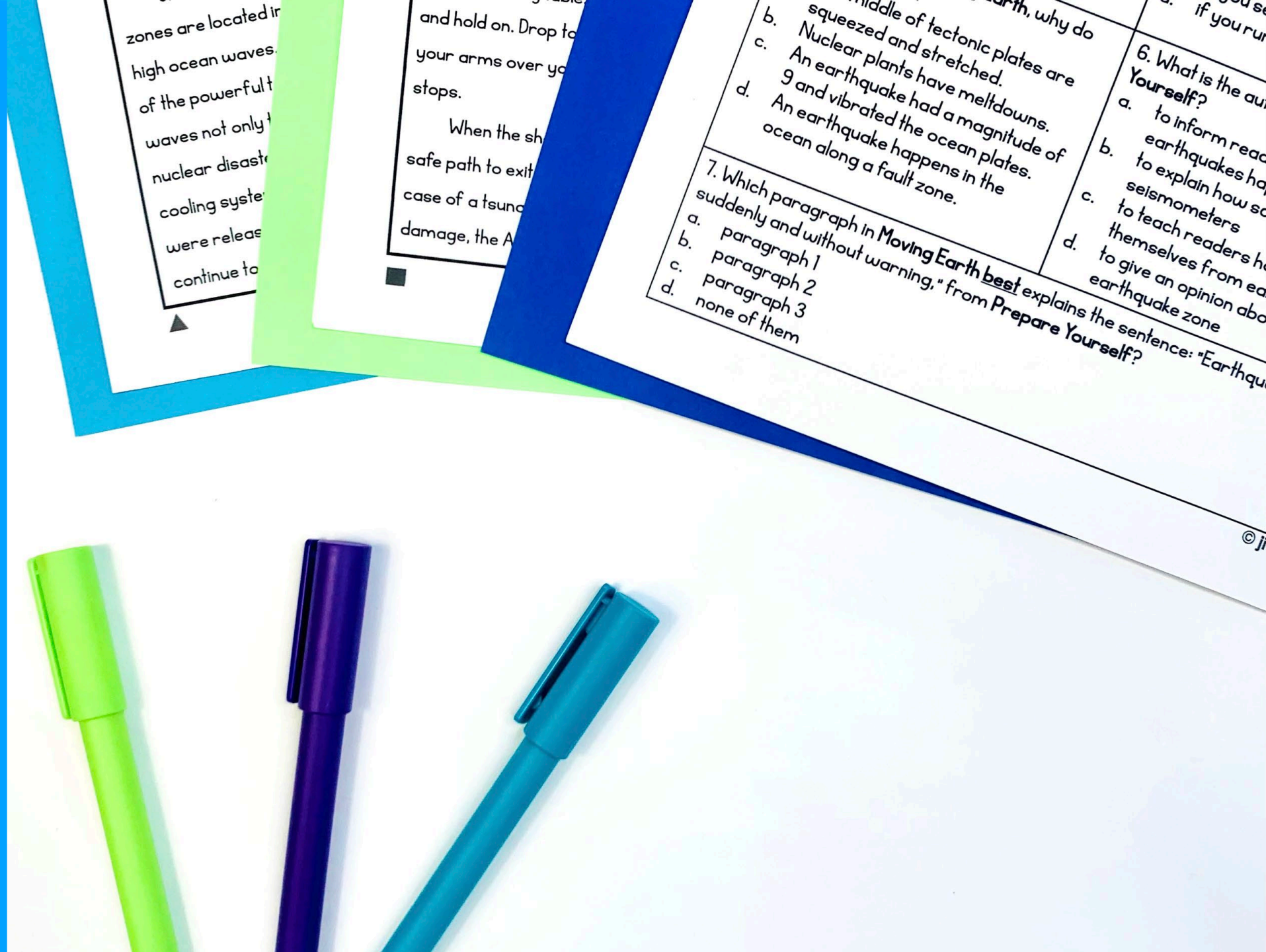
on grade level for 4-5

AND

on grade level for 6-7

discreet symbols on the passages to denote the level of passage

the same questions can be answered no matter the level given



PASSAGES INCLUDED:

- hurricanes and tornadoes
- earthquakes and tsunamis, and how to prepare for earthquakes
- floods (informational paired with a Native American Legend called "The Flood and The Rainbow")

ANSWER KEYS NOTE CORE STANDARDS

Twisters

One of the most violent types of weather is a tornado. These spinning funnels of air form over land in thunderstorms. Cold and warm air meet and begin to swirl. All storms do not create tornadoes, but when conditions are just right, the results can be deadly.

Tornadoes are also called twisters. They are most common in the United States, with over 1,000 per year. This is caused by the cold air systems that move down from Canada, and the warm wet air that moves up from the Gulf of Mexico. The cold and warm winds mix, causing a funnel to form. This happens most often in the Great Plains in central United States. That is why this area also has the nickname, "Tornado Alley." The rain and hail in the storm push down into the funnel, making it touch the ground. Only when the funnel is stretched from the cloud to the ground (called touch-down), it is considered a tornado. When touch-down occurs, Most twisters are about 500 feet wide, but they can be smaller or largest tornadoes have been recorded as being a mile wide speeds and amount of damage to classify tornadoes on th

F-Scale Number	Wind Speed	Damage
F0	40-72 mph	roofs damaged, branches o
F1	73-112 mph	mobile homes pushed over, roofs speel off the road, some building
F2	113-157 mph	trees snapped and uprooted, roofs to light objects are picke
F3	158-206 mph	trains overturned, ma roofs and walls tor
F4	207-260 mph	houses are leveled, barn-lik heavy objects are picked up an
F5	261-318 mph	houses lifted off foundations and fly through the air u

The most destructive tornado in U.S. history wa ripped through Missouri, Illinois, and Indiana. There blown away!

HURRICANE KATRINA

In 2005, the United States saw the most damaging natural disaster in U.S. history. Hurricane Katrina became a giant swirling monster in the Gulf of Mexico. The hurricane did over $100 billion worth of damage. It took the lives of over 1,800 people in Florida, Georgia, Alabama, Mississippi, and mostly Louisiana.

Katrina started as a tropical depression in the Bahamas on August 23, 2005. A tropical depression is when thunderstorms become more organized over water. Winds can reach speeds of On August 24, Katrina

Katrina reached speeds of 174 miles per hour! Once Katrina reached land again on August 29 (over Louisiana and Mississippi), it was 400 miles wide. After making landfall, Katrina weakened to a Category 3 (winds between 111 – 129 miles per hour). But along with the damaging winds, it also brought a storm surge. A storm surge is water that is pushed to the shore by the force of the winds swirling around the eye of the hurricane. It causes major flooding. It can raise the water level up to 30 feet higher than normal. Katrina's storm surge affected 90 miles of the Gulf Coast. 80 percent of New Orleans was left water after the storm. Hurricane proved to be one of the nation's catastrophes. It destroyed homes ore than 800,000 people and took ost 2,000 lives.

A hurricane that occurs in The northern hemisphere rotates counter-clockwise around the eye, which is the calm center of the storm.

MOVING EARTH

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Prepare Yourself

Earthquakes happen suddenly and without warning. This means it's important to be prepared if you live in an area that is at risk for earthquakes. Checking over your home, knowing how to protect yourself, and lastly, knowing what to do when the shaking stops, could save your life.

Before an earthquake happens, make sure your house is ready. You don't want things to fall on you or your family. Attach bookcases and cabinets to the wall. Place heavy objects on low shelves and breakable objects in closed cabinets. Use closed hooks to hang pictures and mirrors. This helps prevent them from falling or flying through the air. Experts can even install flexible pipe fittings to prevent gas or water leaks.

Put together an emergency supply kit and store it where anyone in the family can get to it. Make sure it includes three days of food and water, flashlights with extra batteries, a weather radio, and a first aid kit. Also nut in some face masks to keep from inhaling dust, sleeping bags, and

lowing how to protect yourself hen an earthquake might happen. It's lf no matter where you are. As a way from windows along an inside wall, drills and practice your position: drop, es. Cover yourself with a sturdy table or on if you get under a table until the

round before you move. Make sure there is e coast, move to higher ground in the United States and you must leave your oss can provide your family with assistance.

Name: answer key

Support your answer to the question with evidence from text.

Date:

How are tornadoes and hurricanes alike?
How are they different?

R9

The response may include, but is not limited to:

Tornadoes and hurricanes both begin as thunderstorms, but tornadoes form over land and hurricanes form over water. They both cause great destruction with their winds, but hurricanes also create storm surges which cause flooding. Both storms are classified by their wind speeds. Tornado winds can reach much higher speeds than hurricanes.

Use both texts to answer the following questions.

Name: answer key

Date:

1. Which sentence best summarizes **Moving Earth**?
   a. Scientists use seismometers to measure earthquakes and predict when they'll happen.
   b. Earthquakes are caused by moving tectonic plates, and strong earthquakes can be very destructive.
   c. Earthquakes cause tsunamis.
   d. Seismic waves travel hundreds of miles to destroy cities and oceans.

2. What can you conclude about dangers of earthquakes after reading **Prepare Yourself**?
   a. Tsunamis only cause problems for people who lost their home in an earthquake.
   b. You should blow into a whistle if you hear an earthquake.
   c. Being in your house during an earthquake can be hazardous if you don't take cover.
   d. Earthquake drills are not necessary if you live alone.

R2

3. In paragraph 4 of **Prepare Yourself**, what would be a synonym for the word, crucial?
   a. important
   b. dangerous
   c. minor
   d. risky

R7

4. In **Prepare Yourself**, what is a reason to blow a whistle from your emergency kit?
   a. if you're trapped in your house
   b. if you feel the earthquake
   c. if you see the tsunami
   d. if you run out of food or water

R4

5. According to **Moving Earth**, why do tsunamis occur?
   a. The middle of tectonic plates are squeezed and stretched.
   b. Nuclear plants have meltdowns.
   c. An earthquake had a magnitude of 9 and vibrated the ocean plates.
   d. An earthquake happens in the ocean along a fault zone.

R1

6. What is the author's purpose of **Prepare Yourself**?
   a. to inform readers about how earthquakes happen
   b. to explain how scientists use seismometers
   c. to teach readers how to protect themselves from earthquake dangers
   d. to give an opinion about living in an earthquake zone

R8

7. Which paragraph in **Moving Earth** best explains the sentence: "Earthquakes happen suddenly and without warning." from **Prepare Yourself**?
   a. paragraph 1
   b. paragraph 2
   c. paragraph 3
   d. none of them

R1

R6

FLOODS

Although water can be beautiful and calming, moving water is one of the most common destructive events on Earth. Floods are the most frequent natural disaster because of the several ways that flooding can happen.

Most floods happen when rivers overflow due to heavy rainfall. Often times, it takes days for river floods to occur, so people have time to evacuate the area. On ocean coasts, tsunamis and hurricanes can cause flooding with surges of high waves. It can even occur when ice and snow rapidly melt in the mountains.

Flash floods, or floods that happen quickly without warning, are also possible with large amounts of rainfall, especially if the land is very wet, or very dry. This is because the water runs over the land instead of soaking into it. Flash floods are the most dangerous because people often can't get out in time. Dams or levees breaking can also cause flash flooding. These structures are meant to hold water back, but if they are damaged, the water behind these walls can come roaring out, washing away cars, trees, bridges, and even houses. Even if it doesn't seem like the water is deep or moving swiftly, floodwaters are often deceiving. Don't ever try to cross moving water. Remember the phrase, "turn around, don't drown." Even just six inches of water can make people fall and potentially carry them away.

Once floodwaters recede, or draw back, what is left behind can be dangerous, and even deadly. Floods can damage sewage s which leads to contaminated dri ter. Homes and buildings that were with water may also begin to grow which is harmful to people's health if it not removed. They can also damage bridges and roads, leaving people stranded.

Floodwaters can be helpful, too! The nutrients that are deposited onto flood plains (an area of flat land prone to flooding) help create rich farmland. In Asian countries like China, India, and Thailand, fields are flooded during monsoon season. These fields are called rice paddies. 25% of the world's rice is grown in Southeast Asia in rice paddies!

The Flood and the Rainbow

adapted from Myths and Legends of the Great Plains

The Lenni-Lenapi are the First People, so they know this story is true.

After the Creation of the earth, the Mysterious One covered it with a blue roof. Sometimes the roof was very black. Then the **Manitou**[1] of Waters became nervous. He feared the rain would no longer fall down to the earth through this dark roof. So, the Manitou of Waters prayed to the Mysterious One that the waters from above would not stop.

At once the Mysterious One commanded the Spirit of the Wind to blow. He lives in the Darkening Land. At once thick clouds arose. They covered all the earth, so that the dark roof could no longer be seen.

Then the voice of the Mysterious One was heard from the clouds. The voice as deep and heavy, like the sound of falling rivers.

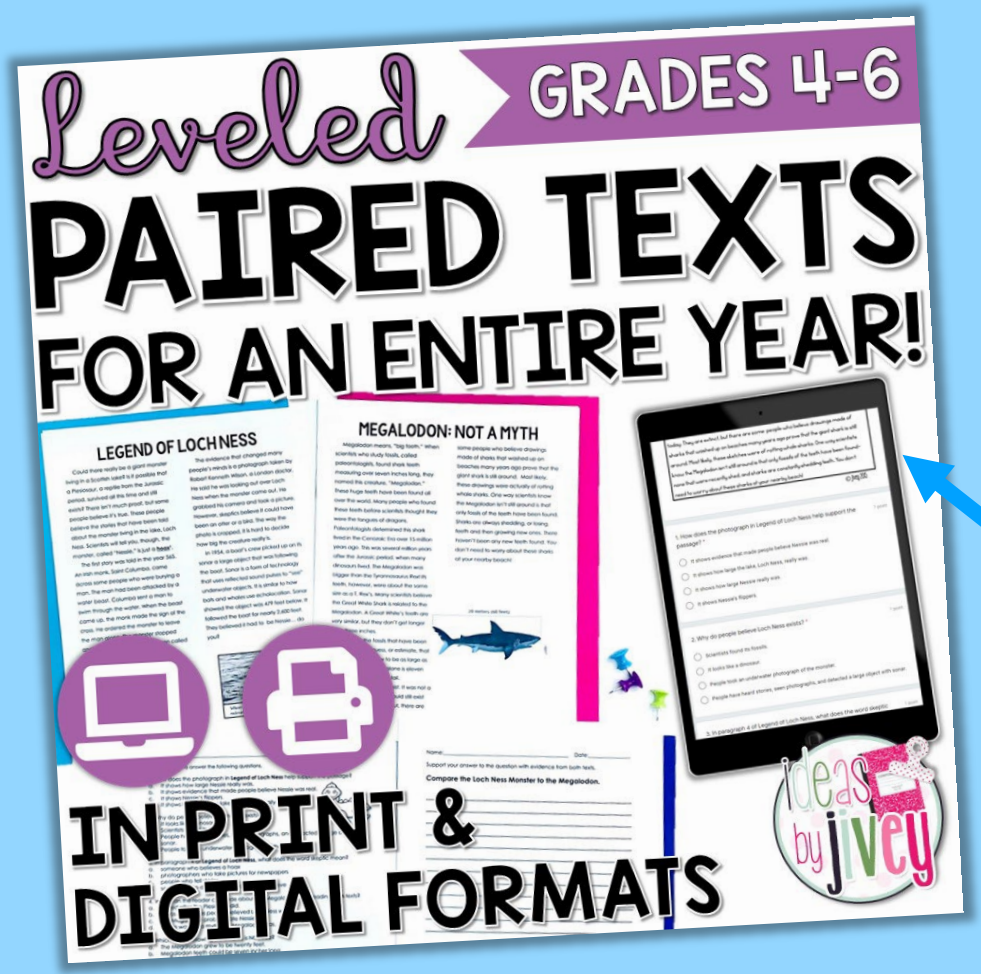
Then the Spirit of Rain, the brother of the Spirit of Waters and the Spirit of the poured down water from above. The waters fell for a long time. They fell until all th th was covered. Then the birds took shelter in the branches of the highest trees. The a followed the trails to the mountain peaks.

Then th Manitou of Waters was no longer afraid. The Mysterious One ordered the rain to cease and the clouds to disappear. Then the rainbow, Sin-go-wi-chi-na-xa, was seen in the sky.

Now, the Lenni-Lenapi watch for the rainbow, because it means that the Mysterious One is no longer angry.

[1]Manitou: supernatural spirit that controls nature in Native American culture

BUY THE BUNDLE & SAVE!



check it out!

The bundle includes 39 pairs of passages and their corresponding questions -- more than a year at your fingertips!

I ended up buying this bundle because each of your paired texts resources are so wonderful! I wanted them all! A Must Have ELA resource!

Amber S. 5th Grade Teacher