

# TYPES OF WAVES

## COMPREHENSION

**FILL IN THE BLANK**

Directions: Use the words below to fill in the reading.

height	trough
peak	direction
spring	hear

...ns. Use the words below to fill in the reading.

... disturbance or movement that transfers energy from one place to another. ...

... important to note that waves only transfer energy. ...

... are found all around the world from many different sources. ...

... seen, such as water waves in the ocean, while others cannot be seen. ...

... waves that allow us to ... There are different types of waves that are used to describe waves. ...

... and measurements that are used to describe waves. ...

... ve, all waves can be classified as either mechanical or electromagnetic. ...

... es have properties that are used to describe waves. ...

... plitude is the measure of the wave's height. ...

... ed from the wave's resting point to the peak of the wave. ...

... e, the more energy the wave has. Wavelength is the distance between two consecutive peaks of the wave. ...

... and is represented by the Greek letter lambda ( $\lambda$ ). It is measured in meters. ...

... wave in comparison to the ... of the wave. ...

... wavelength, the more energy there is and the longer the wavelength. ...

... energy.

... Waves can be described as transverse or longitudinal. ...

... direction of the wave and the ... Transverse waves move perpendicular to the direction of the wave. ...

... disturbance or vibration that formed it. This means that the particles of the medium move perpendicular to the direction of the wave. ...

... and the waves are perpendicular to each other. ...

... with the highest point of the wave. ...

... to each other. ...

**TASK 5: TRUE OR FALSE**

Directions: Answer each question below by coloring in the box of the TRUE statements. Next, unscramble the word using the large bold letters of only the TRUE statements.

<p>Microwaves have shorter wavelengths than radio waves.</p> <p><b>E</b></p>	<p>All waves can be classified as mechanical or electromagnetic.</p> <p><b>L</b></p>	<p>Sounds with frequencies over 20,000 hertz are called infrasound.</p> <p><b>R</b></p>	<p>Decibels are the unit of intensity used to measure the loudness of sounds.</p> <p><b>H</b></p>
<p>Frequency is the measure of the wave's height.</p> <p><b>M</b></p>	<p>Three bones found inside the ear start to vibrate as sound waves enter.</p> <p><b>A</b></p>	<p>The lowest point of a wave is called a crest.</p> <p><b>S</b></p>	<p>Radio rays have the shortest wavelengths.</p> <p><b>D</b></p>
<p>The frequency of sound waves is measured in hertz.</p> <p><b>T</b></p>	<p>Wavelength is the distance between each wave.</p> <p><b>G</b></p>	<p>Waves can be described as transverse or longitudinal.</p> <p><b>V</b></p>	<p>Electromagnetic waves can travel through empty space.</p> <p><b>N</b></p>
<p>Wavelength is represented by the Greek letter epsilon.</p> <p><b>F</b></p>	<p>Light waves are made up of photons.</p> <p><b>W</b></p>	<p>A slinky or spring are examples of longitudinal waves.</p> <p><b>E</b></p>	<p>X-rays were discovered by a French scientist.</p> <p><b>U</b></p>

**SECRET WORD**

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**TASK 4: TEXT**

Directions: Find the answers in the text or color them with the color below.

Which 3 bones are found in the ear?

What is the unit of intensity used to measure the loudness of sounds?

What are the shortest wavelengths?

What are light waves?

What are longitudinal waves?

What is frequency?

Directions: Place the following words in the correct sentence in the reading passage.

Some ... do ...

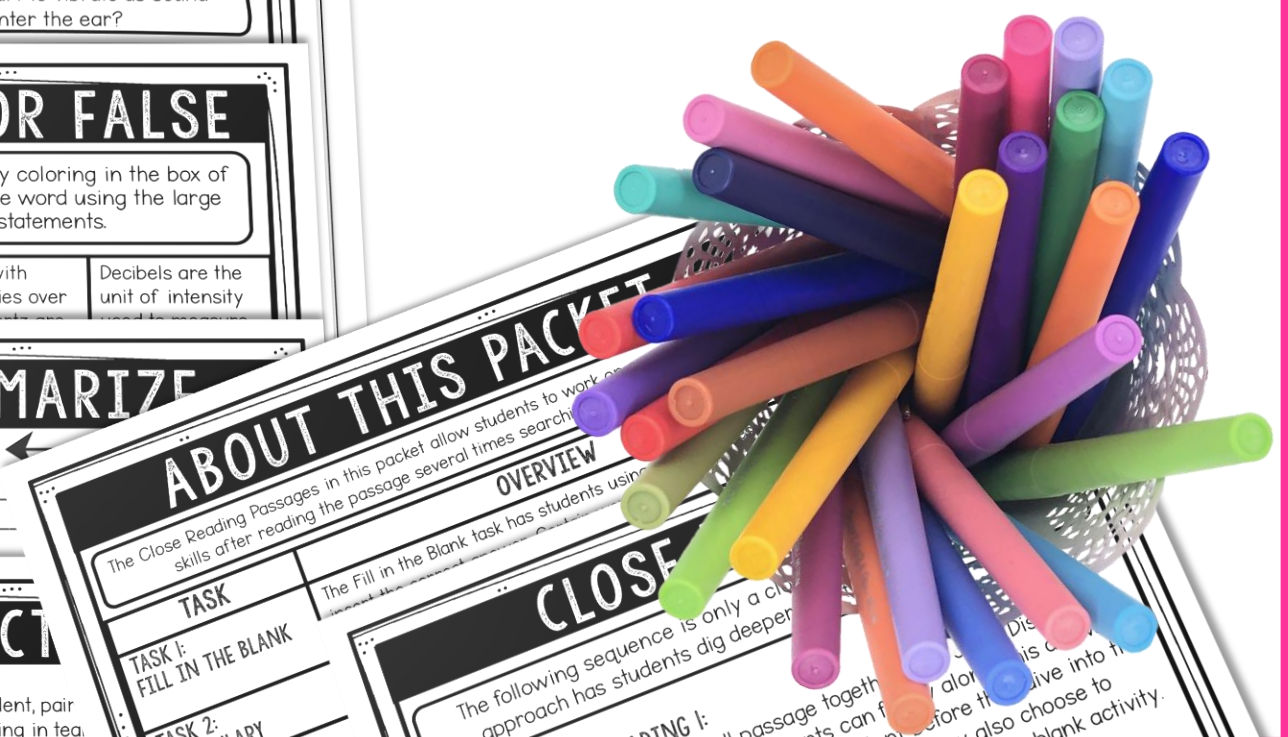
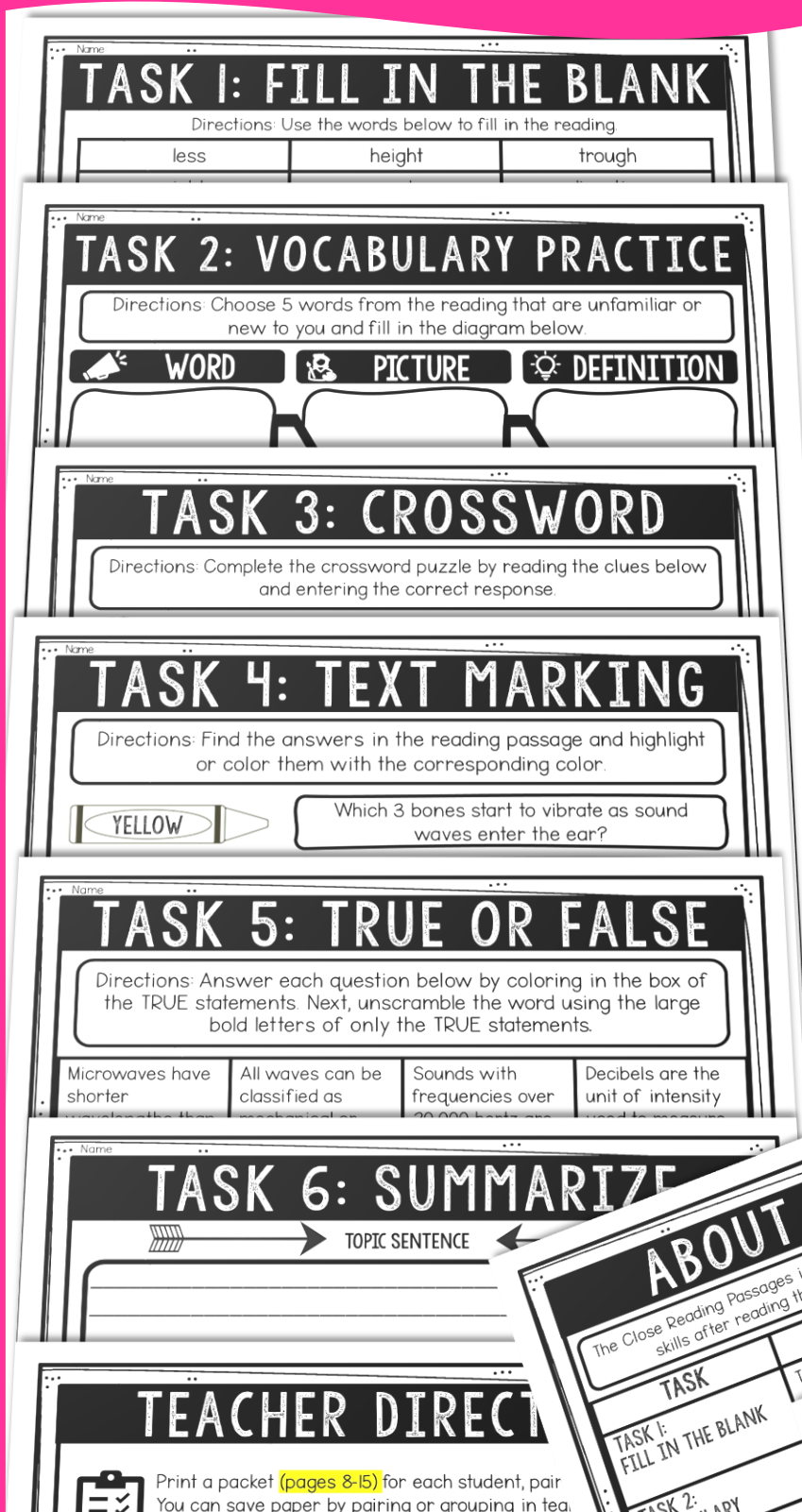
S ... ex ...

st ...

**THINK TANK**

# WHAT'S INCLUDED?

- ✓ Task 1: Fill in the Blank
- ✓ Task 2: Vocabulary
- ✓ Task 3: Crossword Puzzle
- ✓ Task 4: Text Marking
- ✓ Task 5: True or False
- ✓ Task 6: Graphic Organizer
- ✓ Student Completion Sheet
- ✓ Teacher Answer Key
- ✓ Teacher Guide



# 6 TASKS

**6: SUMMARIZE**  
TOPIC SENTENCE  
SUPPORTING DETAIL  
SUPPORTING DETAIL  
DETAIL

**TASK 2: VOCAB**  
Directions: Choose 5 words from the list below that are new to you and fill in the boxes.  
WORD  
PIC

**TASK 3: CROSSWORD**  
Directions: Complete the crossword puzzle by reading the clues below and entering the correct response.

**TASK 4: TEXT**  
Directions: Find the answers in the text or color them with the color of the pencil.  
YELLOW  
BLUE  
GREEN  
PINK  
YELLOW  
BLUE  
Which 3 bones are in the ear?  
What is the function of the eardrum?  
What are light waves?  
What are longitudinal waves?  
What is frequency?

**5: TRUE OR FALSE**  
Answer each question below by coloring in the box of the correct answer. Next, unscramble the word using the large bold letters of only the TRUE statements.

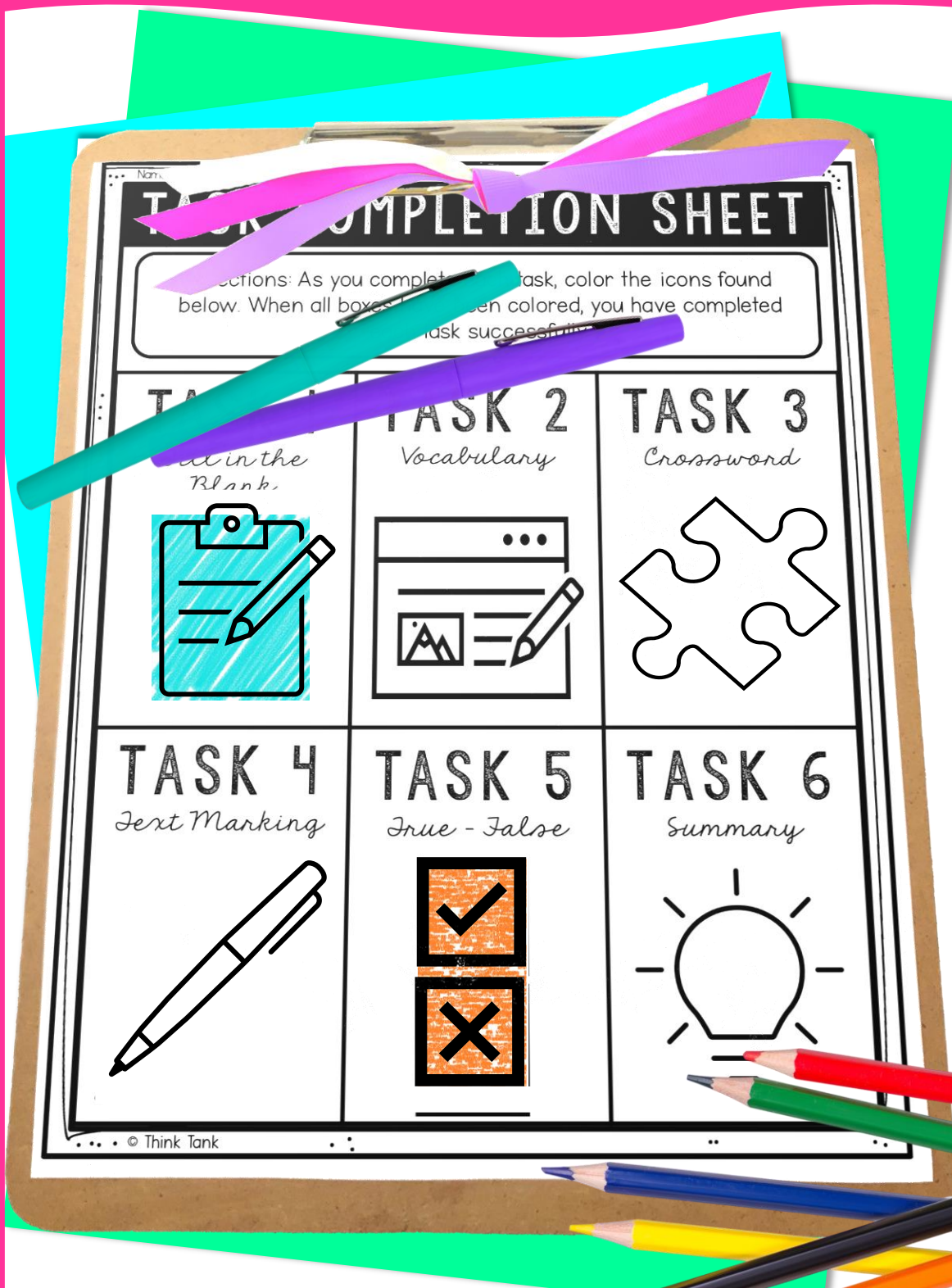
Decibels are a unit of intensity used to measure the loudness of sounds.	<b>R</b>
Radio waves are the longest wavelength of the electromagnetic spectrum.	<b>S</b>
Waves can be described as transverse or longitudinal.	<b>A</b>
Wavelength is the distance between two consecutive crests or troughs of a wave.	<b>M</b>
Frequency of a wave is measured in hertz.	<b>E</b>
Light waves are made up of photons.	<b>T</b>
A slinky can be used to demonstrate both transverse and longitudinal waves.	<b>L</b>
Three bones found inside the ear start to vibrate as sound waves enter.	<b>E</b>

**TASK 1: FILL IN THE BLANKS**  
Directions: Use the words below to fill in the blanks in the reading passage.

less	height	trough
right	peak	direction
energy	spring	height

A wave is a disturbance or movement that transfers energy from one place to another. It is important to note that waves only transfer energy, not matter. Waves are found all around the world from many different sources. Some waves can be seen, such as water waves in the ocean, while others cannot be seen, such as sound waves that allow us to hear. There are many different types of waves, all waves can be classified as either mechanical or electromagnetic. Waves have properties that are used to describe the amount of energy they have. Amplitude is the measure of the wave's height, measured from the wave's resting point to the peak of the wave. The larger the amplitude, the more energy the wave has. Wavelength is the distance between two consecutive crests of a wave and is represented by the Greek letter lambda ( $\lambda$ ). It is measured in meters. The longer the wavelength, the more energy there is and the longer the wave takes to travel. Waves can be described as transverse or longitudinal. In a transverse wave, the disturbance or vibration moves perpendicular to the direction of the wave. This means that if the wave is moving to the right, the particles of the wave are moving up and down. In a longitudinal wave, the disturbance or vibration moves parallel to the direction of the wave. This means that if the wave is moving to the right, the particles of the wave are moving back and forth. The lowest point of a wave is called a trough. Another way of categorizing waves is by the medium they travel through. Mechanical waves need a medium or a type of matter to travel. When molecules receive energy from a wave, they vibrate back and forth.

# EARN ICONS



As students complete each task, they will bring you their answers for you to quickly check. After checking, they can color in the box on the completion sheet. They will repeat the process until all 6 boxes are colored in.