

RENEWABLE ENERGY

TEXT MARKING DETECTIVE

RENEWABLE ENERGY

Renewable energy is a type of energy produced by sources that themselves and provide clean, usable energy. Some forms of energy, often called green energy or clean energy, are solar, wind, hydro, geothermal, hydrogen, hydropower, marine, solar, and wind energy. Together, these sources of renewable energy together with nuclear energy are the United States needs to sustain the energy in the country.

Renewable energy is a source of renewable energy. Biomass, often called green energy or clean energy, are made from living materials known as biomass, microalgae, and urban waste. Biomass can produce transportation fuels, electricity, and heat. When biomass rots it produces a methane gas that can be used to make electricity.

Geothermal Energy: Geothermal energy is energy stored within the earth to tap into reservoirs of hot water and steam. These power plants are relatively small and help create energy for electricity as well as heating and businesses. There are three types of geothermal energy plants: direct use, geothermal heat exchange, and geothermal steam. The first geothermal energy plant was built in Italy in 1904.

Hydrogen Energy: Hydrogen fuel cells separate hydrogen and oxygen to produce electricity. Hydrogen can be produced from elements like water, which contains hydrogen and oxygen. Hydrogen can be used to generate electricity without adding to the environment.

Also known as hydroelectric energy, it is a form of renewable energy that uses the power of flowing water to generate electricity.



CASE FILE

Cross off the images you use as an answer. What remains will solve the case!

SUSPECTS				
LOCATION				
EVIDENCE				

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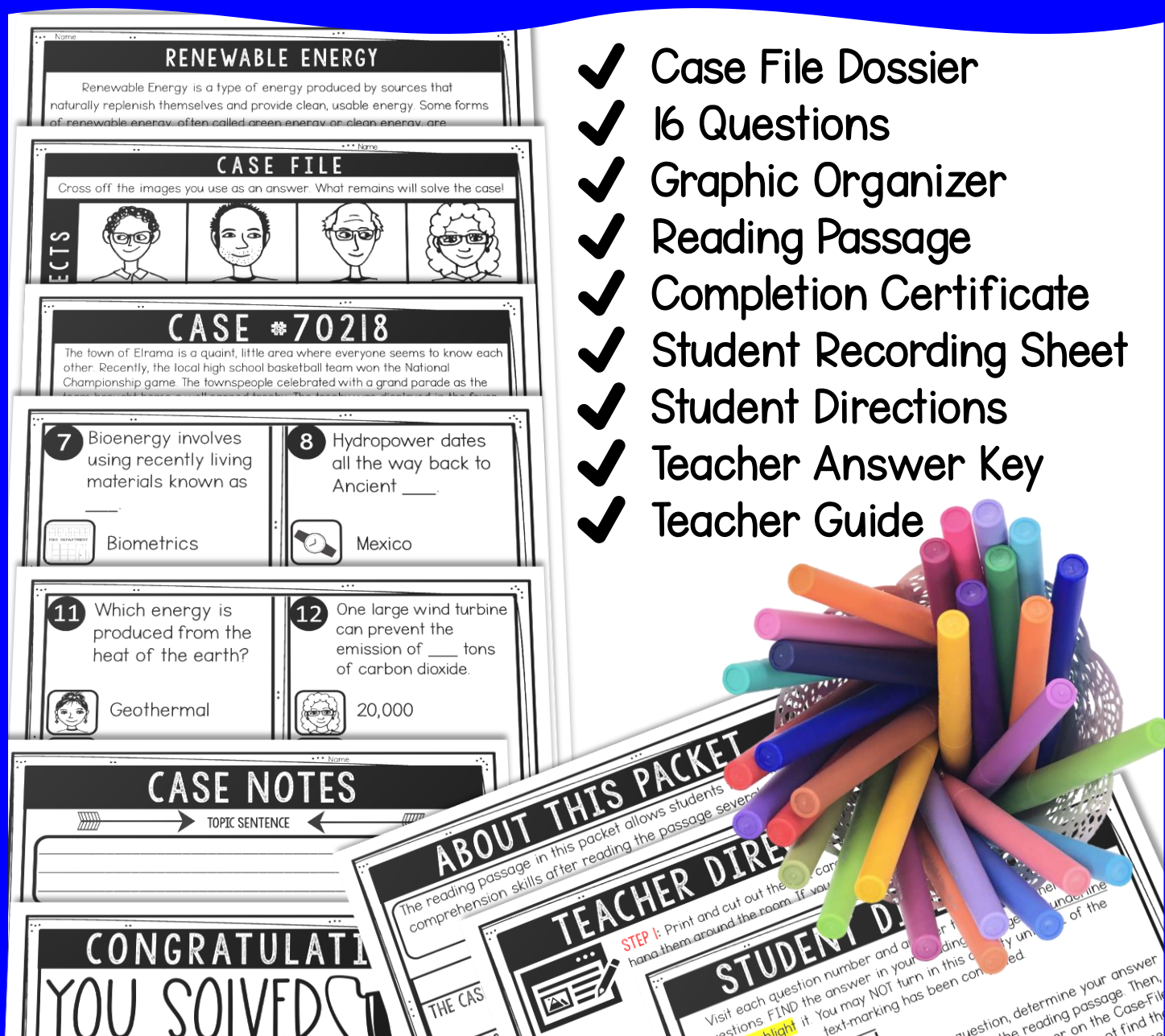
What energy is also known as _____

4 What energy is called? Green energy Blue energy New energy None of the above

6 What renewable energy is also known as hydrokinetic energy? Geothermal M

THINK TANK

WHAT'S INCLUDED?



RENEWABLE ENERGY
Renewable Energy is a type of energy produced by sources that naturally replenish themselves and provide clean, usable energy. Some forms of renewable energy, often called green energy or clean energy, are

CASE FILE
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FACTS

CASE #70218
The town of Elrama is a quaint, little area where everyone seems to know each other. Recently, the local high school basketball team won the National Championship game. The townspeople celebrated with a grand parade as the

7 Bioenergy involves using recently living materials known as _____
Biometrics

8 Hydropower dates all the way back to Ancient _____
Mexico

11 Which energy is produced from the heat of the earth?
Geothermal

12 One large wind turbine can prevent the emission of _____ tons of carbon dioxide.
20,000

CASE NOTES
TOPIC SENTENCE

CONGRATULATIONS YOU SOLVED IT!

ABOUT THIS PACKET
The reading passage in this packet allows students to practice reading comprehension skills after reading the passage several times.

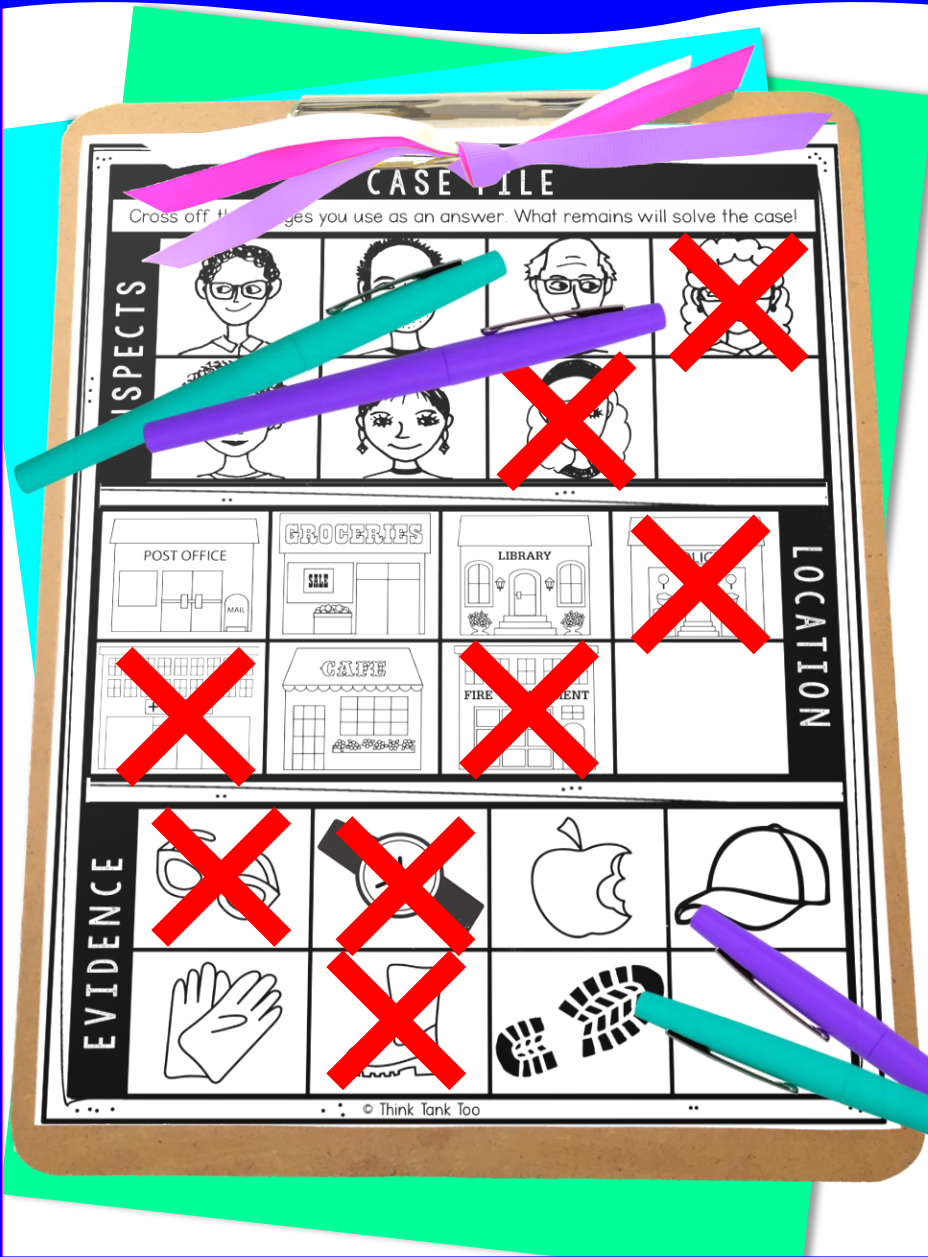
TEACHER DIRECTIONS
STEP 1: Print and cut out the pages. You can use them around the room. If you have a lot of students, you can have them work in pairs.

STUDENT DIRECTIONS
Visit each question number and answer the question. **FIND** the answer in your reading passage. **Underline** the answer. You may NOT turn in this case file until you have underlined the answer. If you have underlined the answer, text-marking has been completed.

- ✓ Case File Dossier
- ✓ 16 Questions
- ✓ Graphic Organizer
- ✓ Reading Passage
- ✓ Completion Certificate
- ✓ Student Recording Sheet
- ✓ Student Directions
- ✓ Teacher Answer Key
- ✓ Teacher Guide

CASE DOSSIER





As students answer each question, they will eliminate suspects, locations, and evidence.







18 QUESTIONS

CONGRATULATIONS YOU SOLVED THE CASE!
DETECTIVE NAME: _____



3 Hydropower is also known as _____ power.

 Coral
 Geothermal
 Hydroelectric
 Biomass

4 What is renewable energy often called?





 Green energy
 Blue energy
 New energy
 Nuclear energy

5 What is included in biomass production?



 Crop waste
 Forest residue

6 What is _____?

7 Bioenergy involves using recently living materials known as _____.





 Biometrics
 Biopsies
 Bipartisan
 Biomass

9 Marine energy uses _____ and allows water to flow and create energy.

 Solar panel
 Wind turbine








10 What is the entire _____ ship _____ the globe _____ 200_____?

16 What is the source of solar energy?

 Sun
 Moon
 Water
 Wind

18 Roughly _____ of homes in Iceland are powered by _____ geothermal heating.

CASE FILE
Cross off the images you use as an answer. What remains will solve the case!

SUSPECTS

GROceries **LIBRARY** **POLICE**

TEXT MARKING

After answering each question, students will find evidence in the text to support their answer.

RENEWABLE ENERGY

Renewable Energy is a type of energy produced by sources that naturally replenish themselves and provide clean, usable energy. Some forms of renewable energy, often called green energy or clean energy, are bioenergy, geothermal energy, hydropower, marine energy, and wind. According to energy experts, these sources of renewable energy together make up about 20% of the world's energy supply. Renewable energy needs to sustain the demand for electricity.

Using bioenergy as a source of renewable energy involves using recently living materials known as biomass. Included in biomass production are crop waste, forest residue, microalgae, and urban food waste. Biomass can produce transportation fuels, electricity, and heat for our homes and businesses. When biomass rots it produces a methane gas and this gas can be used to make electricity.

Geothermal Energy: Geothermal energy is energy produced from the heat of the earth. These power plants are relatively small buildings that reach deep within the earth to tap into reservoirs of hot water. Geothermal energy plants help create energy for electricity as well as heating and cooling home and businesses. There are three types of geothermal power plants. The first geothermal energy plant was built in Italy in 1904. Roughly 87% of homes in Iceland are powered by geothermal heating.

Hydrogen Energy: Hydrogen fuel cells separate hydrogen from other elements in water. Water contains hydrogen and oxygen. The fuel cells help to generate electricity without adding harmful pollution to the environment.

Hydroelectric power, also known as hydroelectric power, is one of the most common forms of renewable energy that mankind has been using. It uses water and the flow of water through rivers, dams, or canals to create electricity. Hydroelectric power dates all the way back to Ancient Greece and has been used and improved today. In the United States, hydropower is growing

