



Renewable Resources Lesson 1: “The Solve”

Student Handout

I. Watch the Mosa Mack Mystery.

Either on your own, in a small group or as a class (your teacher will let you know), read Mosa Mack’s comic on Renewable Resources. Then, fill out the questions below. Include a page number in your answer as evidence of where you found your answer.

Name: _____

Date: _____

Episode Questions

1. Why is travelling to vacation destinations so expensive?
2. Is oil available everywhere? Give an example.
3. Where does oil come from? How long does it take to make?
4. How does burning fossils contribute to climate change?
5. Why did the towns in Virginia and Russia “die”?
6. Why are fossil fuels out of the question?
7. Why are wood and water semi-renewable resources?



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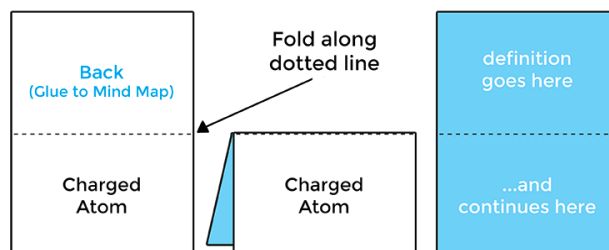
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8. What did Mosa figure out? How can the kids' vacations be saved?

II. Vocabulary Activity

Note: Your teacher will tell you whether you will complete this activity [online here](#), or offline by following the instructions below.

1. Using the materials at your table, cut out your vocabulary cards along the **solid lines**. Note: Do not cut at the dotted lines.



2. Fold the cards at the dotted lines.
3. Write the definition of the term on the inside of the card using the definitions below.
4. Use the clues from the Mind Map images, definitions, and vocabulary terms to place the cards in the correct location in the Mind Map, explaining your thinking to group members as you go.
5. When you're ready to glue or tape, raise your hand so you can check your Mind Map with your teacher.
6. Use glue or double-sided tape to connect the back of the vocabulary card to the correct place on the Mind Map.

7. Discuss with your group:
 - a. What is the difference between a nonrenewable and renewable resource?
 - b. List examples of energy resources found in your mind map.
 - c. Where have you heard the words "fossil fuels" used before?

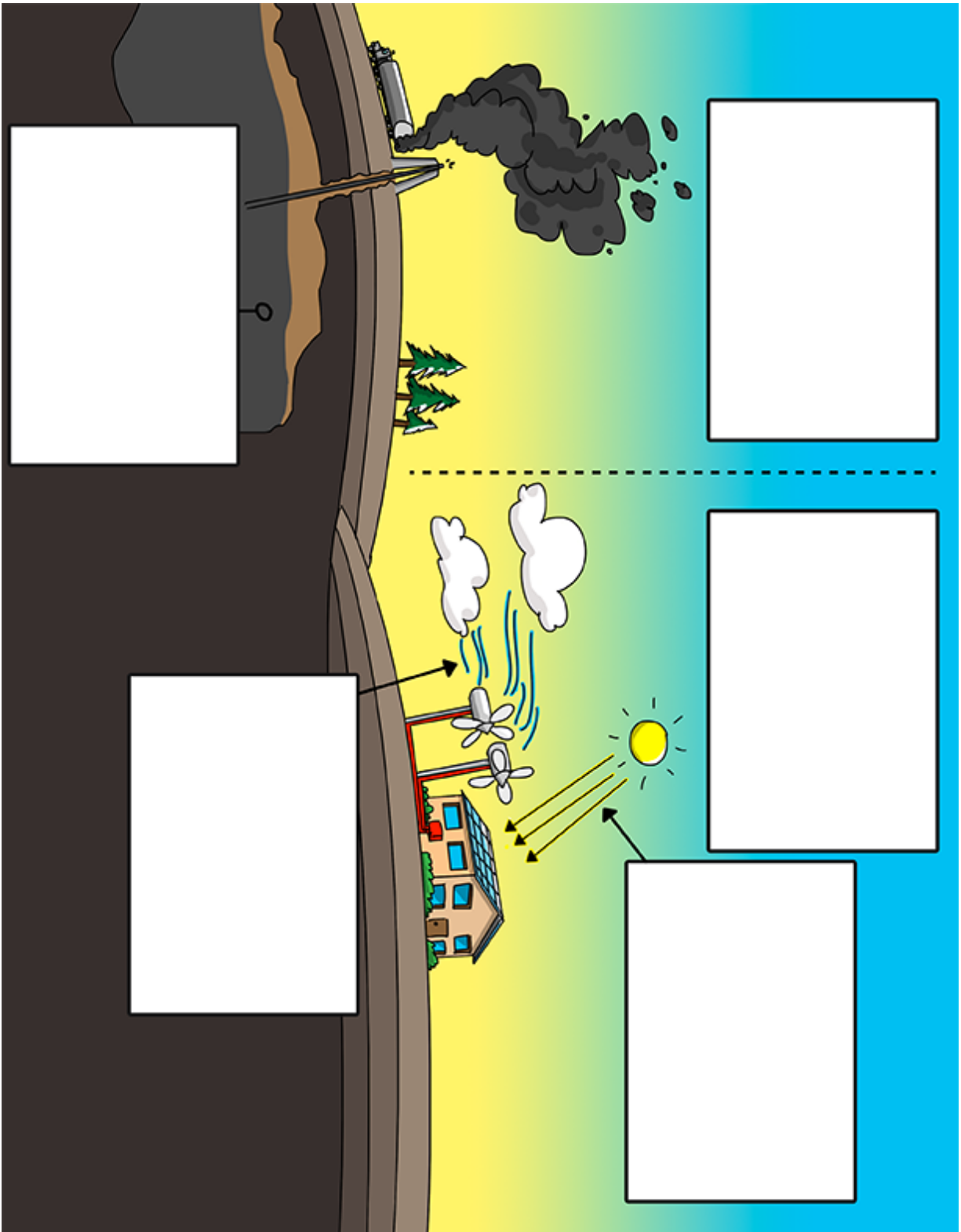




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Mind Map:





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Non-Renewable Resource	Wind Energy	Renewable Resource
Fossil Fuel	Solar Energy	

Vocabulary

- **Renewable Resource:** a resource which can replenish through natural processes to overcome human usage and consumption.
- **Nonrenewable Resource:** a resource that cannot be quickly and easily replaced by natural means on a level equal to its consumption.
- **Fossil Fuel:** natural fuel such as coal or gas, formed in the geological past from the remains of living organisms.
- **Solar Energy:** radiant energy emitted by the sun.
- **Wind Energy:** turbines convert the kinetic energy of wind into mechanical or electrical energy that can be used for power.



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III. Exit Ticket: Check for Understanding

Complete the exit ticket below *or* you can take the quiz online!

Name: _____

Date: _____

1. Which of the following is an example of a non-renewable resource?
 - a. Wind
 - b. Solar (Sun)
 - c. Trees
 - d. Petroleum

2. Resources are equally distributed throughout the world. True or false?
 - a. True
 - b. False

3. How long does oil take to make?
 - a. Hundreds of millions of years
 - b. 40 years
 - c. A few years
 - d. 1 million years

4. Burning fossil fuels releases which gas into the air, making the Earth warmer?
 - a. Oxygen
 - b. Water
 - c. Nitrogen
 - d. Carbon Dioxide

5. Which of the following resources cycles the slowest?
 - a. Wood
 - b. Oil
 - c. Water
 - d. Carbon

6. Which of the following is the most renewable source of energy?
 - a. Oil
 - b. Petroleum
 - c. Solar (Sun)
 - d. Trees