

Name: _____

Renewable vs. Non-Renewable Resources

By Lydia Lukidis

Energy resources are all around us. They are things that people use. They come from nature. We need them to survive. For example, they keep us warm and help us cook food. We also use them to do things that make life easier, like driving cars. These resources fall into two categories: non-renewable and renewable.



Confused? Let's take a closer look.

Non-renewable energy resources are limited. There is only a certain amount of them. They take a long time to be replenished. For example, coal, oil, and natural gas are non-renewable. Once we use or burn through them, they're gone forever. It takes millions of years to make more.

Renewable resources are different. They are replenished by nature fairly quickly. They rely on Earth's natural processes. Examples include plants, solar power, wind, and water. You can imagine that it's impossible to "use up" all the sunlight from the sun. And those rays are useful when heating up a building or a swimming pool. The same goes for water. It never fully disappears. The water cycle keeps the flow going. It may evaporate. But it still exists in gas form. Soon, condensation forms in the clouds. We're all familiar with the part that happens after that: it rains! Then the water cycle begins again.

For hundreds of years, humans have used renewable resources. They used wood for cooking and heating. They used wind and water for milling grain. Then about 150 years ago, scientists discovered the power of fossil fuel. Energy could be taken out of the fossils of ancient plants and animals. Soon, coal, oil, and natural gas replaced things like wood and

wind. They were great resources, but were not unlimited.

Today, we rely on many non-renewable resources. We use them to heat our homes, play our electronic devices, and power our cars. Think about that the next time you ride a school bus. The bus uses diesel or gasoline. Both are made from petroleum. Petroleum is a fossil fuel. Or imagine the next time you play a video game, or turn on a light. So many things require energy.

Unfortunately, there are problems with using so much non-renewable energy. First, these resources are limited. They will eventually disappear. How will we ride our cars and turn on our ovens then? Also, they're not good for the environment. Burning fossil fuels pollutes the air.

That's why it's important for us to develop new technologies. We have to find new ways of using renewable resources. For example, wouldn't it be great to have a car that runs on water or plant power? Or a house powered by solar energy instead of electricity? These resources would not pollute the environment. And they can be replenished in a short time. We need to keep doing research on these kinds of advancements.

In the meantime, it's important to use our non-renewable resources wisely. If we use them too much or too quickly, they will run out faster. One thing we can all do is follow the rule of the three R's: Reduce, Reuse and Recycle. Doing this will make a difference. We're all living on this beautiful planet together, so why not take care of it?

About the Author



Lydia Lukidis is a children's author with a multi-disciplinary background that spans the fields of literature, science, and theater. So far, she has over 40 books and eBooks published, as well as a dozen educational books. Her latest STEM books include [A Real Live Pet!](#) and [The Space Rock Mystery](#).

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1. How long does it take for non-renewable resources to be replenished once they are used?
 - a. a few years
 - b. hundreds of years
 - c. thousands of years
 - d. millions of years

2. What form of energy transformed the way humans survive?
 - a. solar power
 - b. fossil fuel
 - c. wind energy
 - d. water energy

3. What is an advantage of using renewable resources, instead of non-renewable resources?

4. Complete the T-chart below with **three non-renewable resources** and three **renewable resources**.

Non-Renewable Resources	Renewable Resources

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Match each vocabulary word from the article with the correct definition.



- | | |
|-----------------------|--|
| _____ 1. replenished | a. a form of energy fueled by charged particles |
| _____ 2. evaporate | b. a natural fuel that comes from ancient plants and animals |
| _____ 3. condensation | c. a form of energy that comes from the sun |
| _____ 4. fossil fuel | d. belonging to the distant past |
| _____ 5. pollutes | e. filled back up again; replaced |
| _____ 6. gasoline | f. contaminates the environment |
| _____ 7. electricity | g. crushing or grinding grain |
| _____ 8. solar power | h. to turn from liquid to gas |
| _____ 9. milling | i. a form of petroleum used as fuel |
| _____ 10. ancient | j. conversion of gas to liquid |

ANSWER KEY

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1. How long does it take for non-renewable resources to be replenished once they are used? **d**
- a. a few years
 - b. hundreds of years
 - c. thousands of years
 - d. millions of years**



2. What form of energy transformed the way humans survive? **b**
- a. solar power
 - b. fossil fuel**
 - c. wind energy
 - d. water energy

3. What is an advantage of using renewable resources, instead of non-renewable resources?

Acceptable answers include: they are replenished by nature quickly; they can be used again and again; they rely on the Earth's natural processes; they are not harmful to the environment

4. Complete the T-chart below with **three non-renewable resources** and three **renewable resources**.

Non-Renewable Resources	Renewable Resources
<u>Acceptable answers include:</u> <u>coal, oil, natural gas,</u> <u>fossil fuels, gasoline, diesel,</u> <u>petroleum</u>	<u>Acceptable answers include:</u> <u>solar power, wind power, water power, plants</u>

ANSWER KEY

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Match each vocabulary word from the article with the correct definition.

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