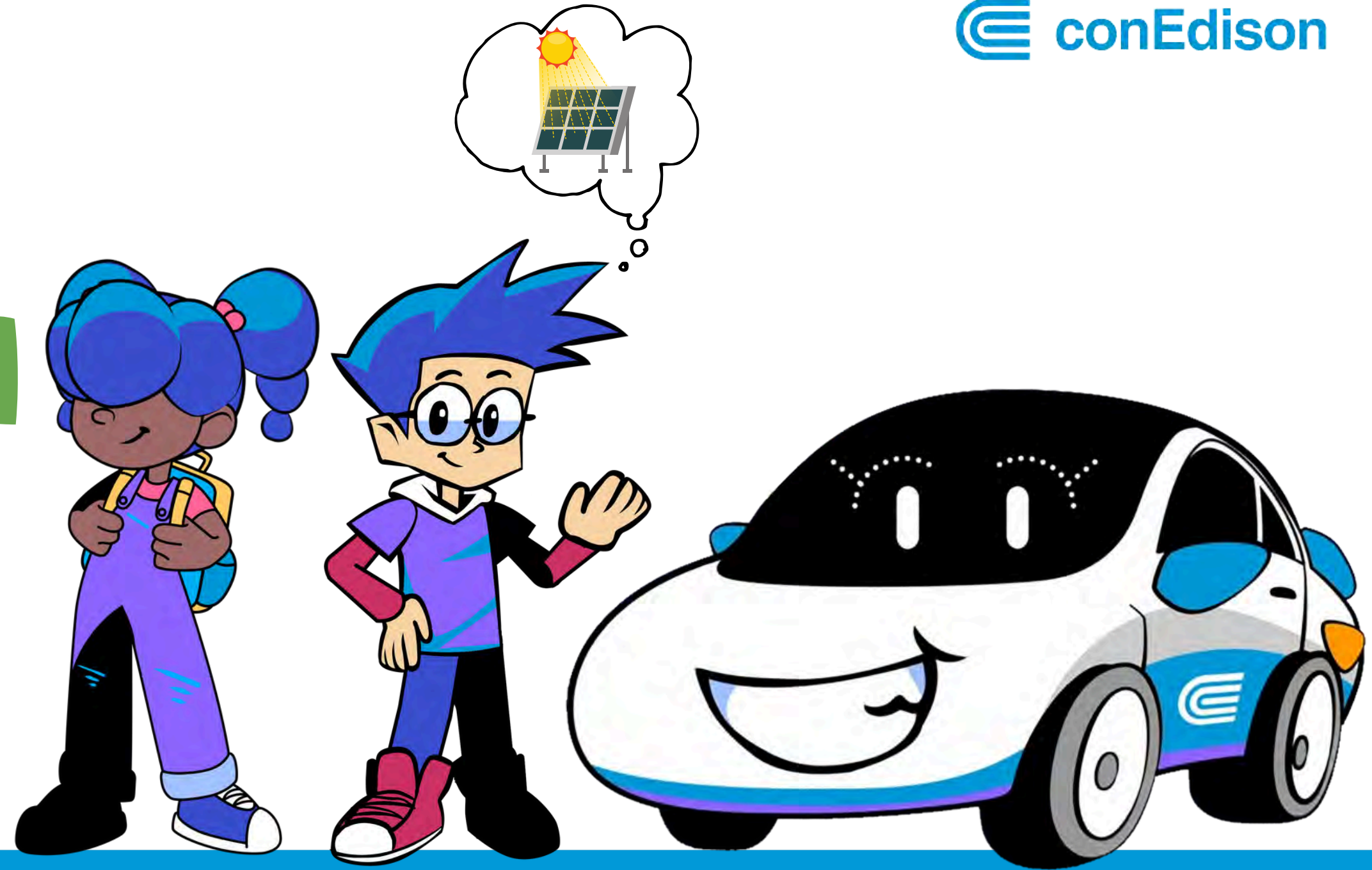
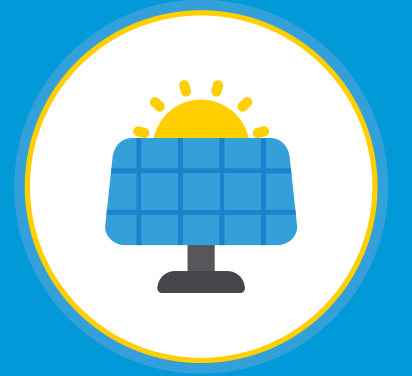


Solar Appreciation Day



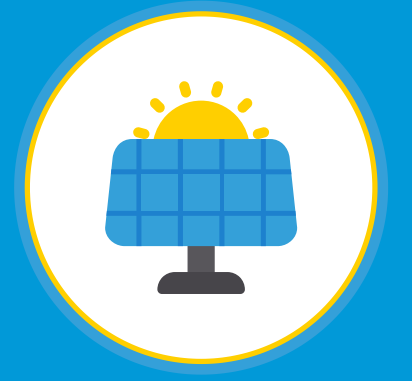
WHAT IS SOLAR ENERGY AND HOW DO WE CELEBRATE ITS BENEFITS TOGETHER?

Essential Questions



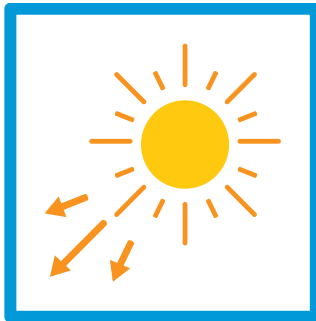
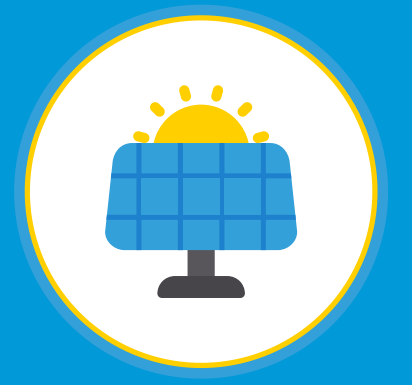
- What is solar energy?
- How does solar energy work?
- How does solar energy benefit the planet?
- What is Solar Appreciation Day? How can I help?

Objectives



- I can engage in a discussion about solar energy.
- I can ask and answer questions about solar energy.
- I can state facts about solar energy.
- I can identify ways to use solar energy to benefit the earth.

Vocabulary



Solar Energy: Energy from the sun. We can use it to make electricity and heat things up.



Solar Panels: Special boards that catch sunlight and turn it into electricity. You might see them on roofs or in big fields.



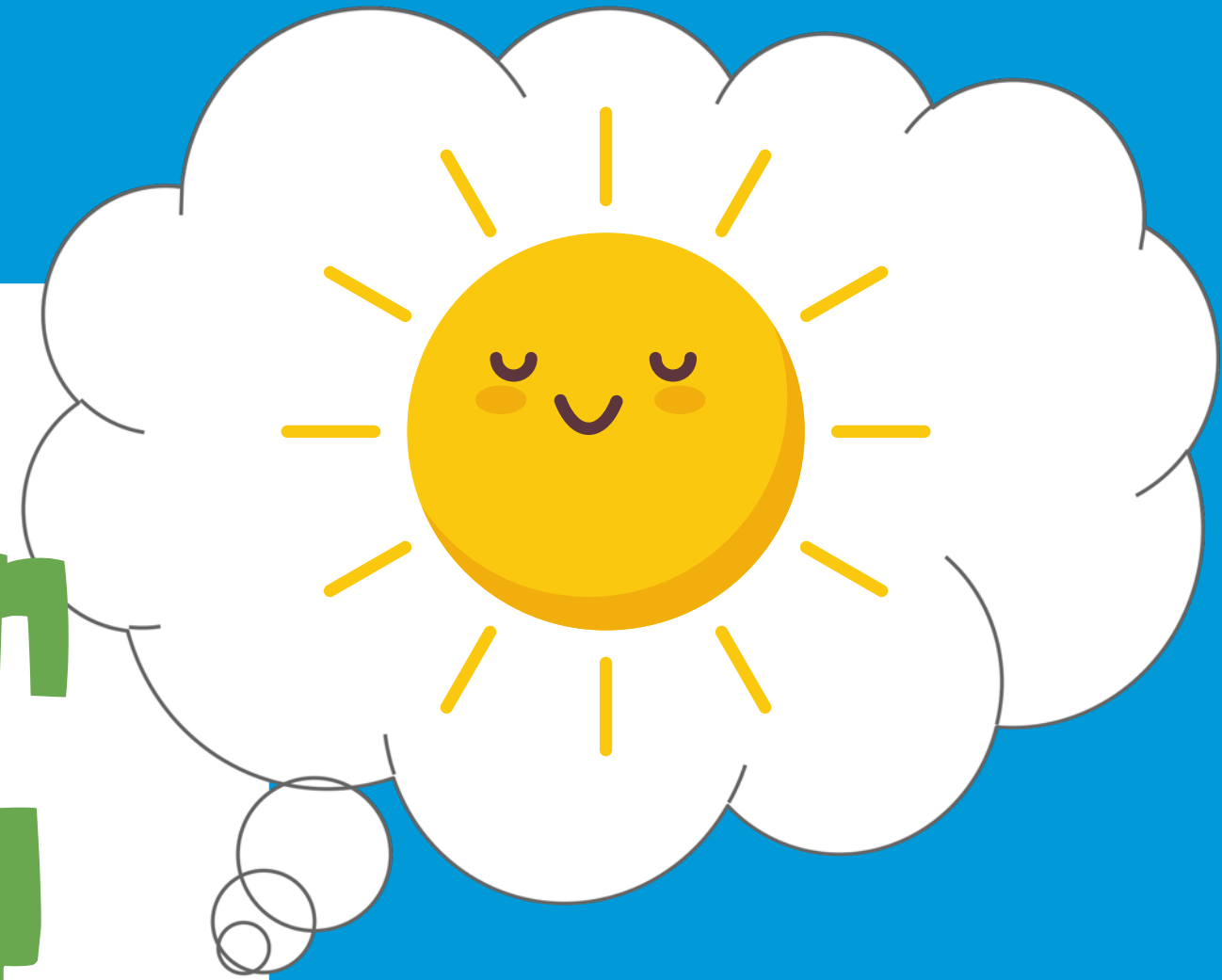
Solar Cells: Tiny parts inside solar panels that do the work of changing sunlight into electricity.



Silicon: A material found in sand that is used to make most solar cells because it is really good at catching sunlight.



How does the sun help the planet?

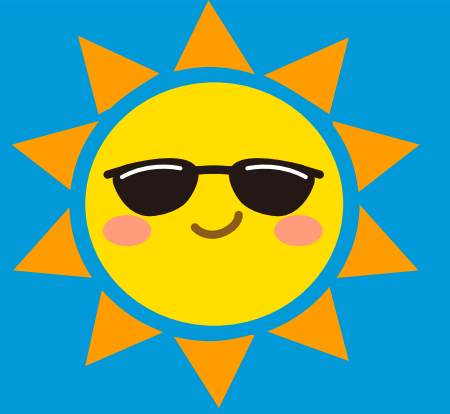


As we begin to explore solar energy, think of what you already know about the sun and how it helps the planet.

Draw your thought
on a post-it

Think Pair Share

How does the sun help the planet?



With your partner:

- Think about the topic.
- Pick a question.
- Share your thoughts.



What I **k**now?

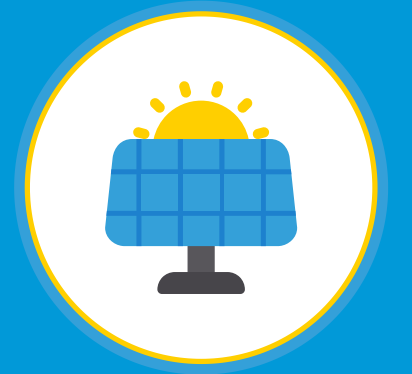
What I **w**onder?

What I **l**earned?

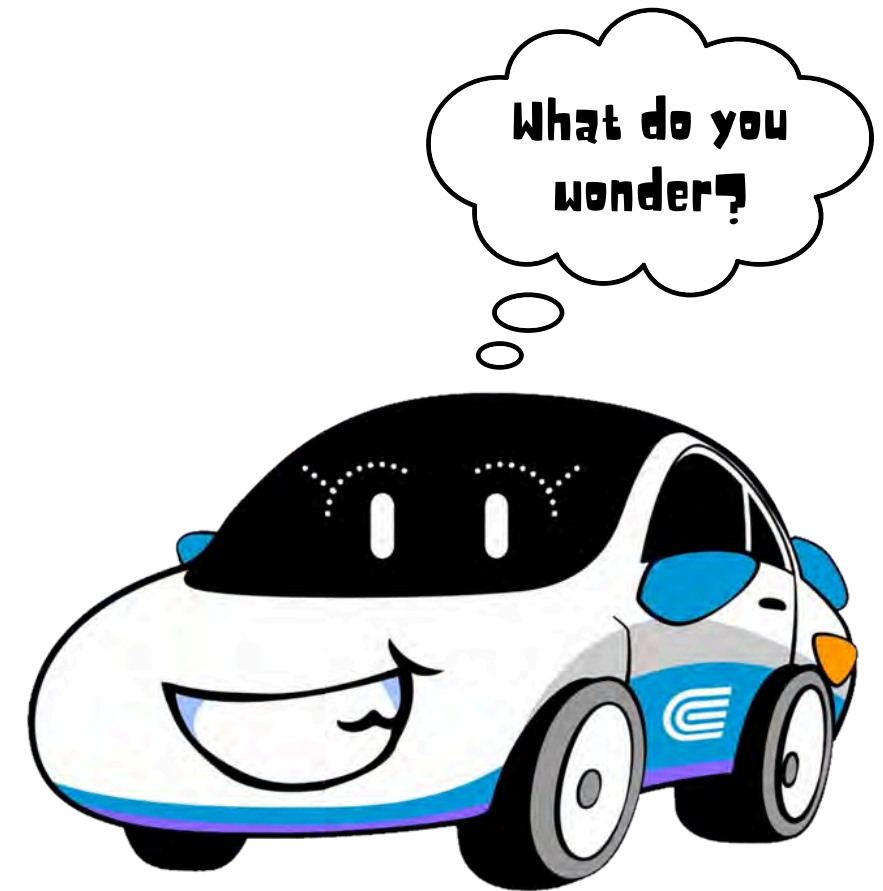
Let's learn facts about solar energy!



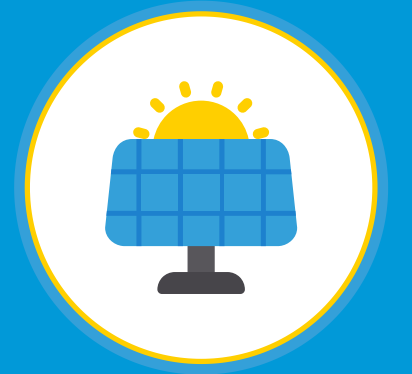
Solar Energy History



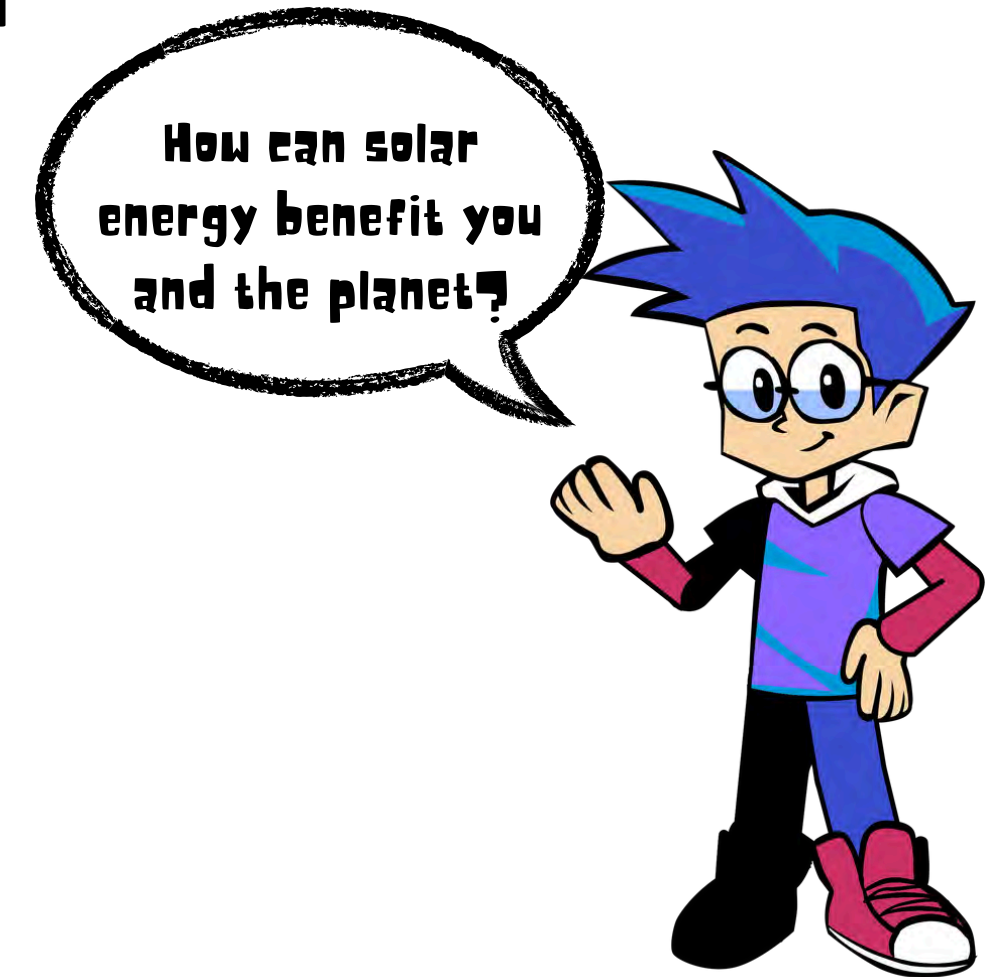
- People have used the sun's energy for thousands of years, like drying food to preserve it.
- The first practical solar panel was made way back in 1954, which was the start of using sunlight to create electricity.
- Solar panels capture light from the sun and turn it into electricity that we can use to power things like homes and schools.



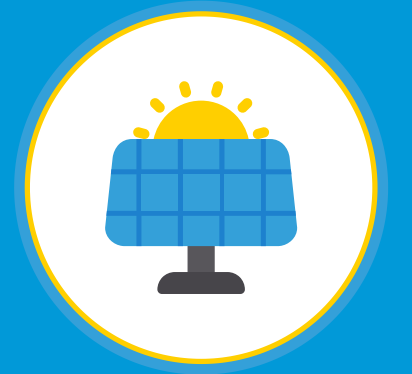
How Does Solar Energy Work ?



- Solar panels are made of lots of small parts called solar cells, which are mostly made from a material called silicon.
- These solar cells take sunlight and turn it into electricity without any smoke or waste.
- The sun shines on the solar panels, and then the energy from the sun is turned into power we can use to run appliances and lights.



What are the benefits of Solar Energy?

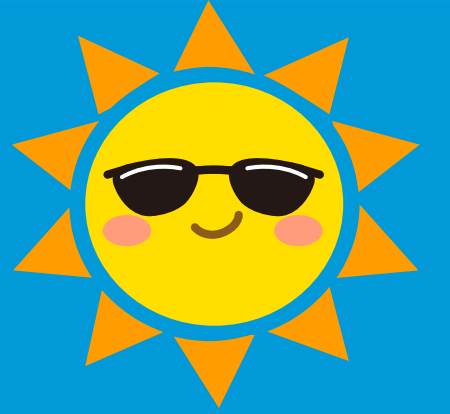


- Solar energy is a super clean source of power, meaning it doesn't create dirty air like some other energy sources.
- Using solar energy can help reduce our reliance on burning fossil fuels, which is good for our planet.
- Solar power can be used almost anywhere—homes, schools, parks, and even in remote places where it's hard to get electricity.



Think Pair Share

How can solar energy benefit you and the planet?



With your partner:

- Think about the topic.
- Pick a question.
- Share your thoughts.

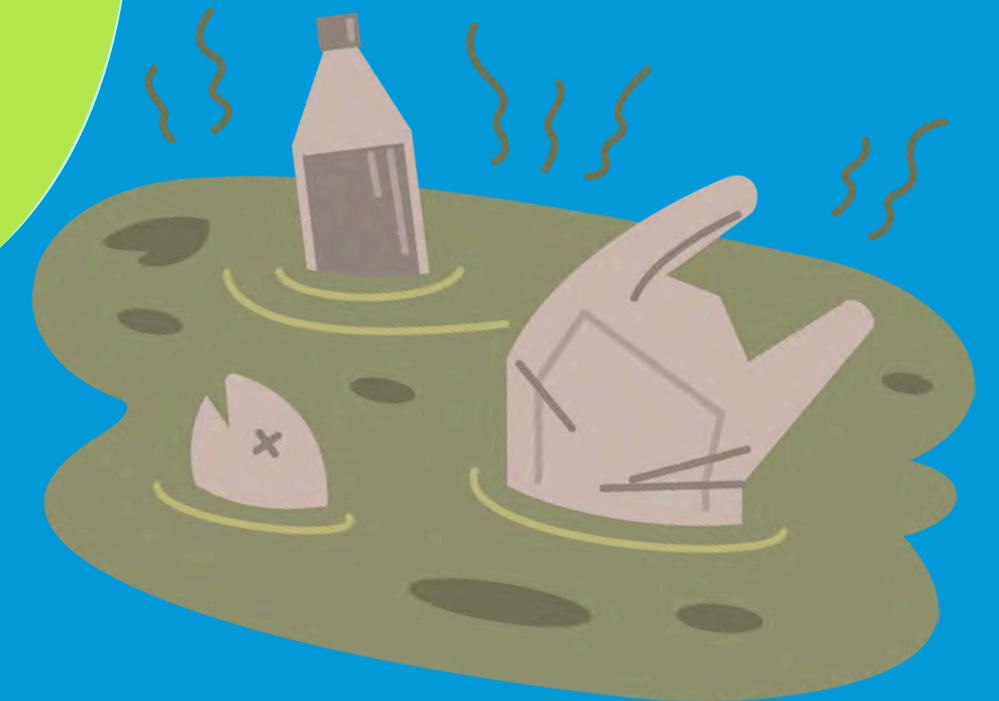
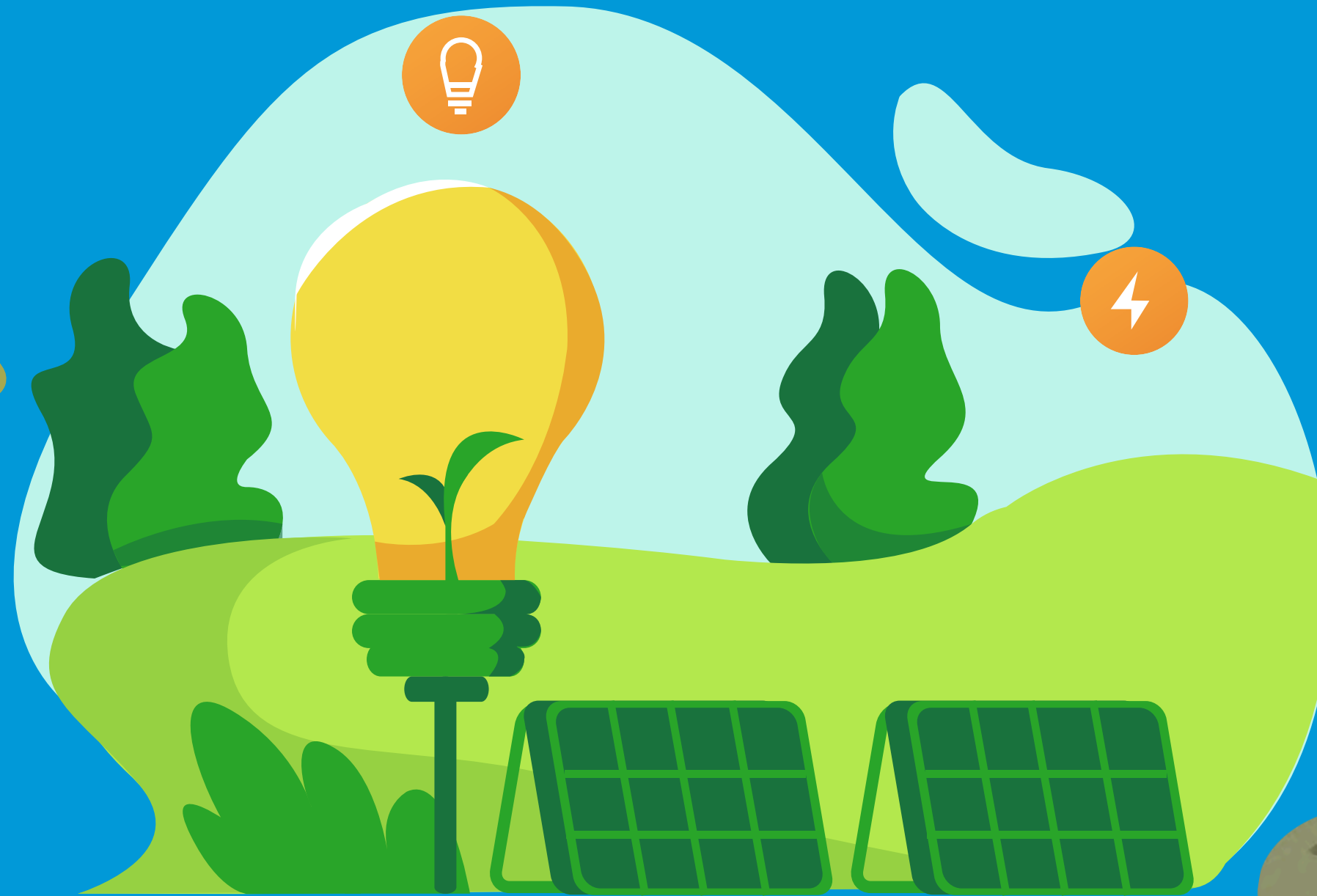


What I **k**now?

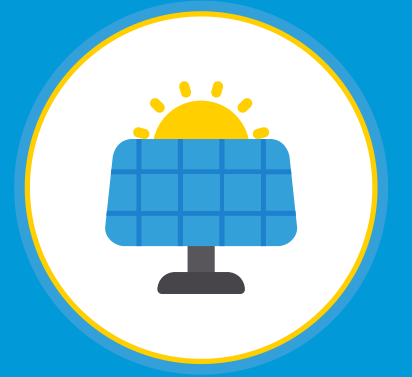
What I **w**onder?

What I **l**earned?

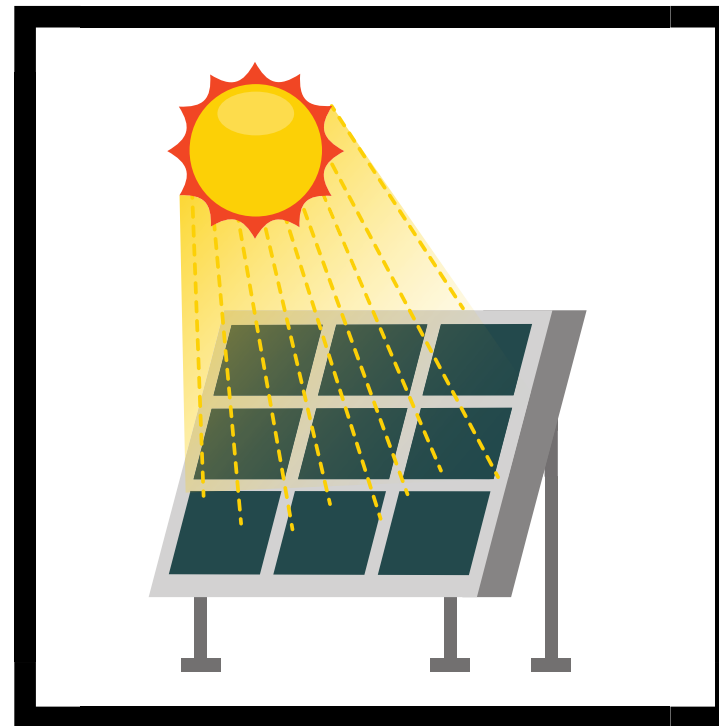
Let's clean up our planet with solar energy!



What is better for the environment?



Look at the image. What is the best choice?

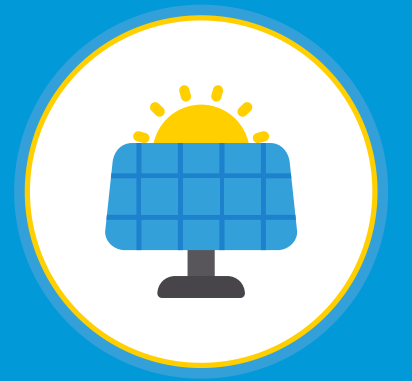


WHAT DO YOU NOTICE?

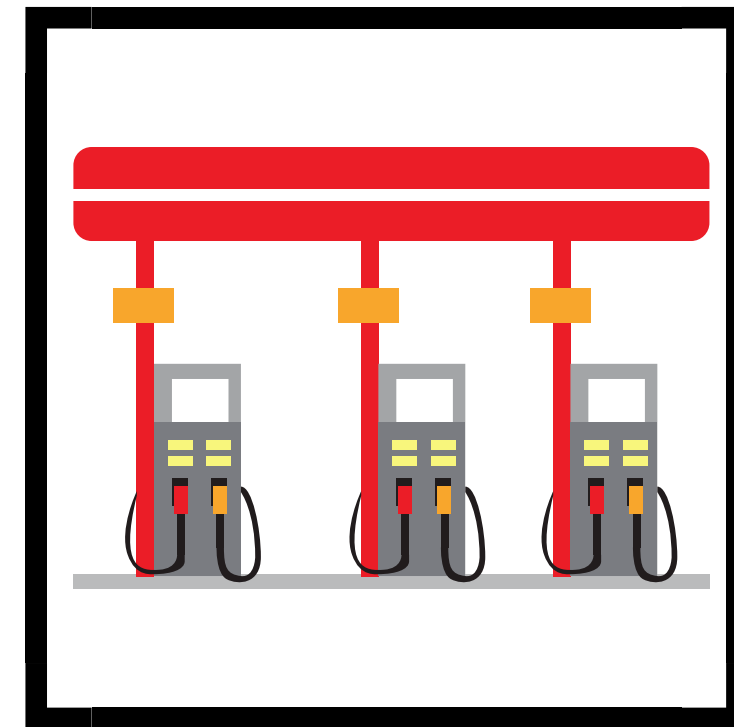
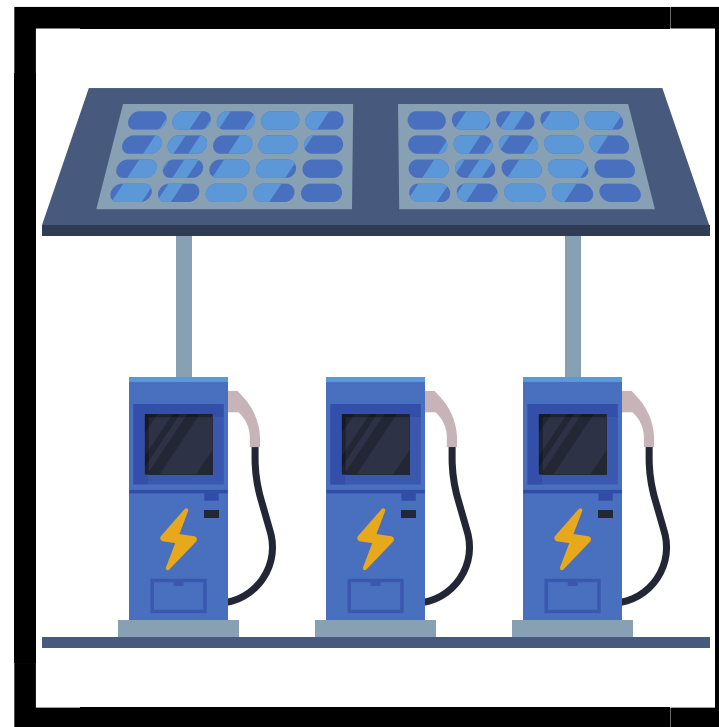
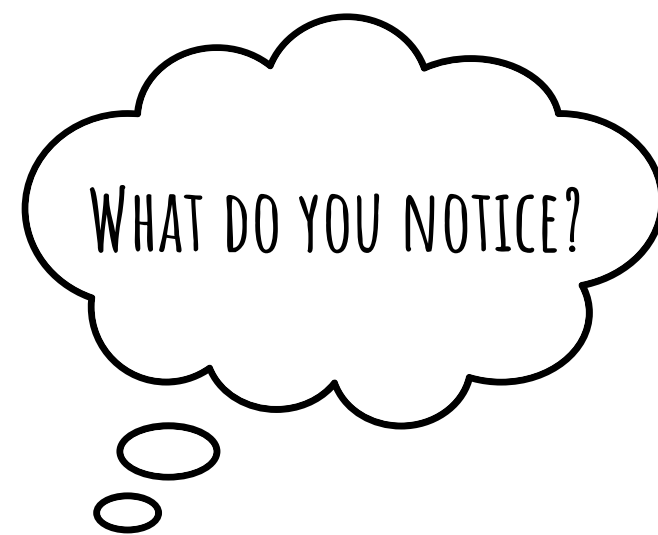
While heading to school, you see solar panels and a factory. Which one is better for the environment?



What is better for the environment?



Look at the image. What is the best choice?

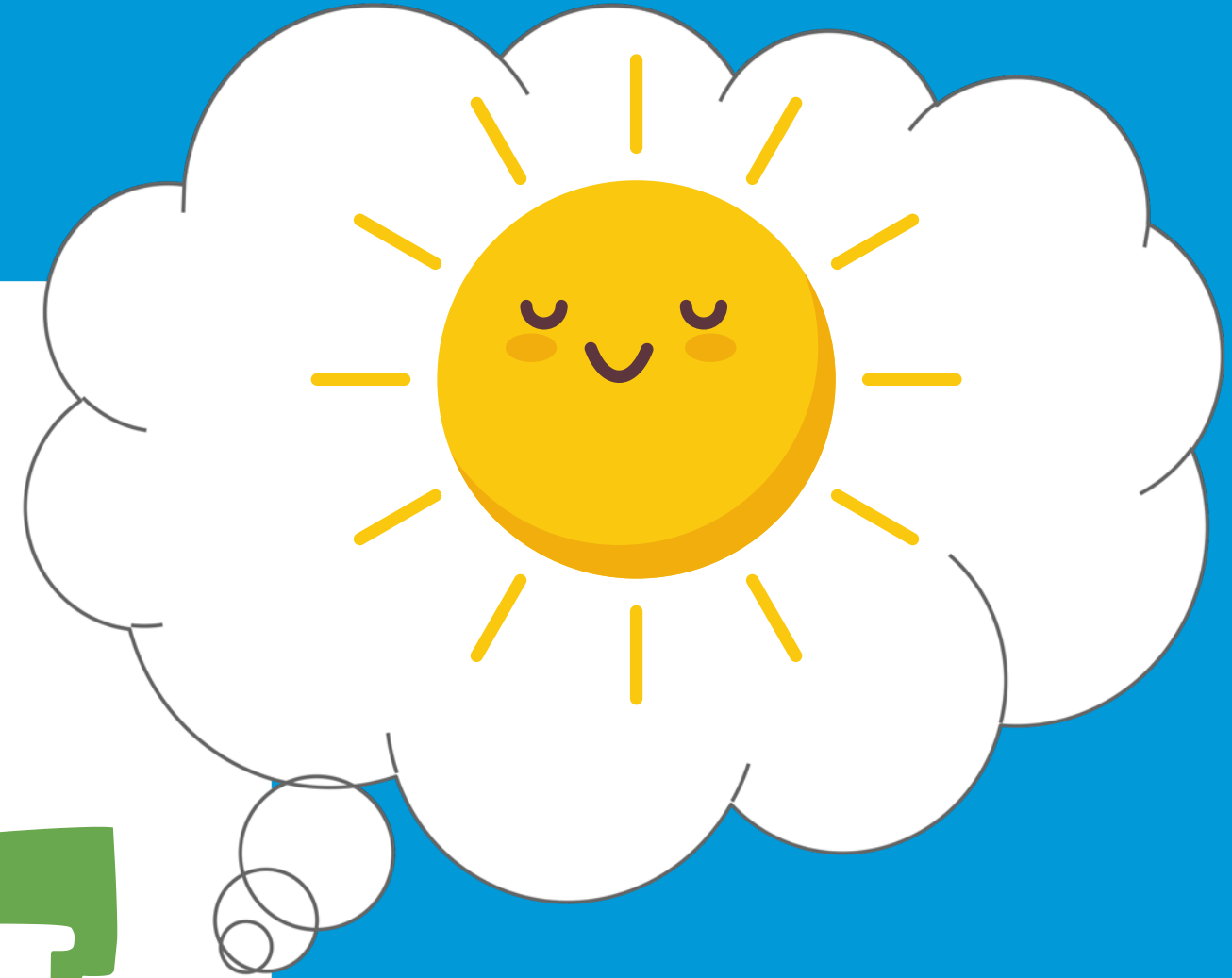


ELIE needs to refuel. Help her make the right choice. Which one is better for the environment?



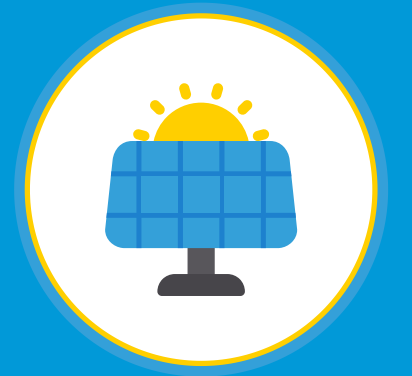


What is Solar Appreciation Day?



Solar Appreciation Day is a special day set aside to learn about and celebrate the sun's power.

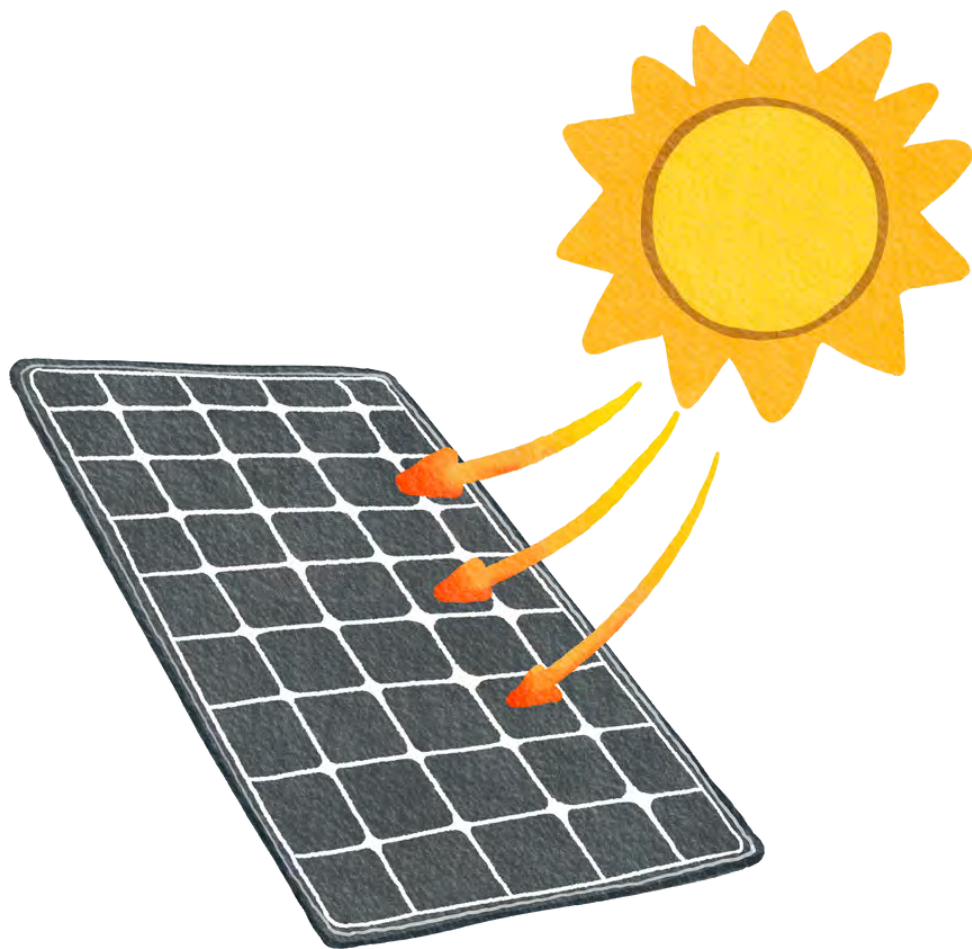
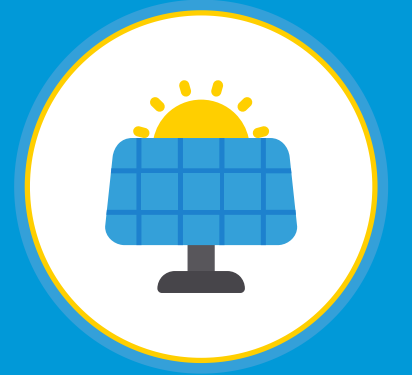
What is Solar Appreciation Day?



- Solar Appreciation Day is celebrated on the second Friday in March every year.
- This special day is set aside to learn about and celebrate the sun's power.
- We recognize how the sun helps us by providing clean energy that doesn't pollute our planet.



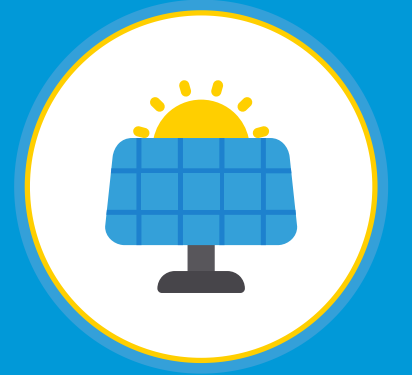
Solar technology is cool!



Scientists at the National Renewable Energy Laboratory have made solar cells that can turn 47% of the sunlight they catch into electricity. Most ordinary solar cells can only turn about 20% of the sunlight they catch into electricity.

New technologies are even helping solar panels work more efficiently in less sunny places.

Solar technology is cool!



Innovations include creating flexible solar panels that can be used in more ways and places than traditional panels.

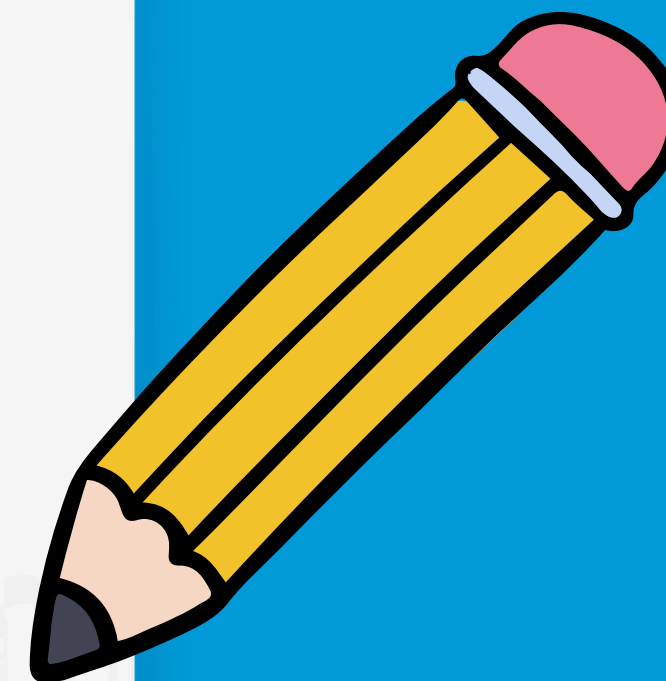
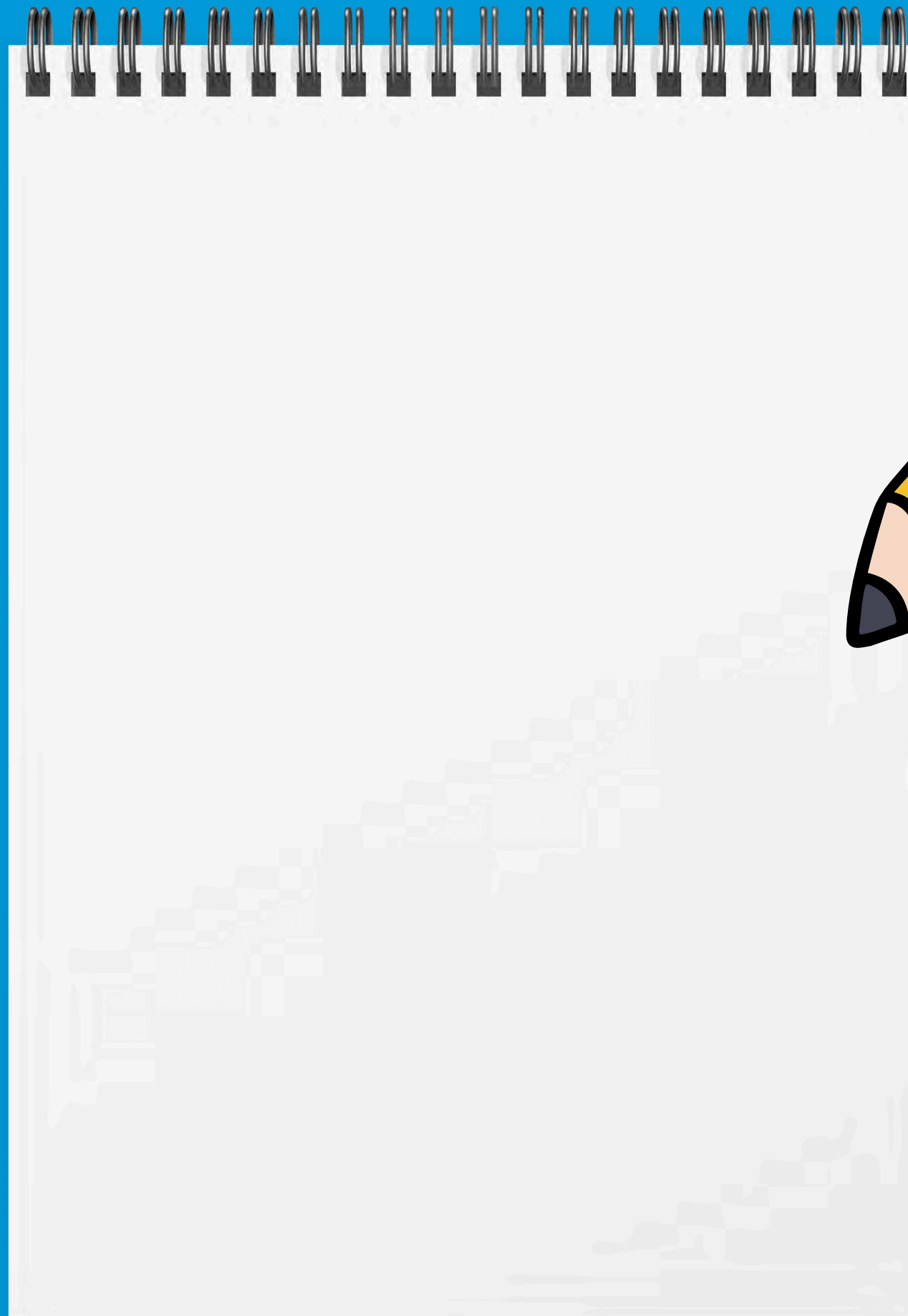


If you were a scientist, what would you create using solar energy?

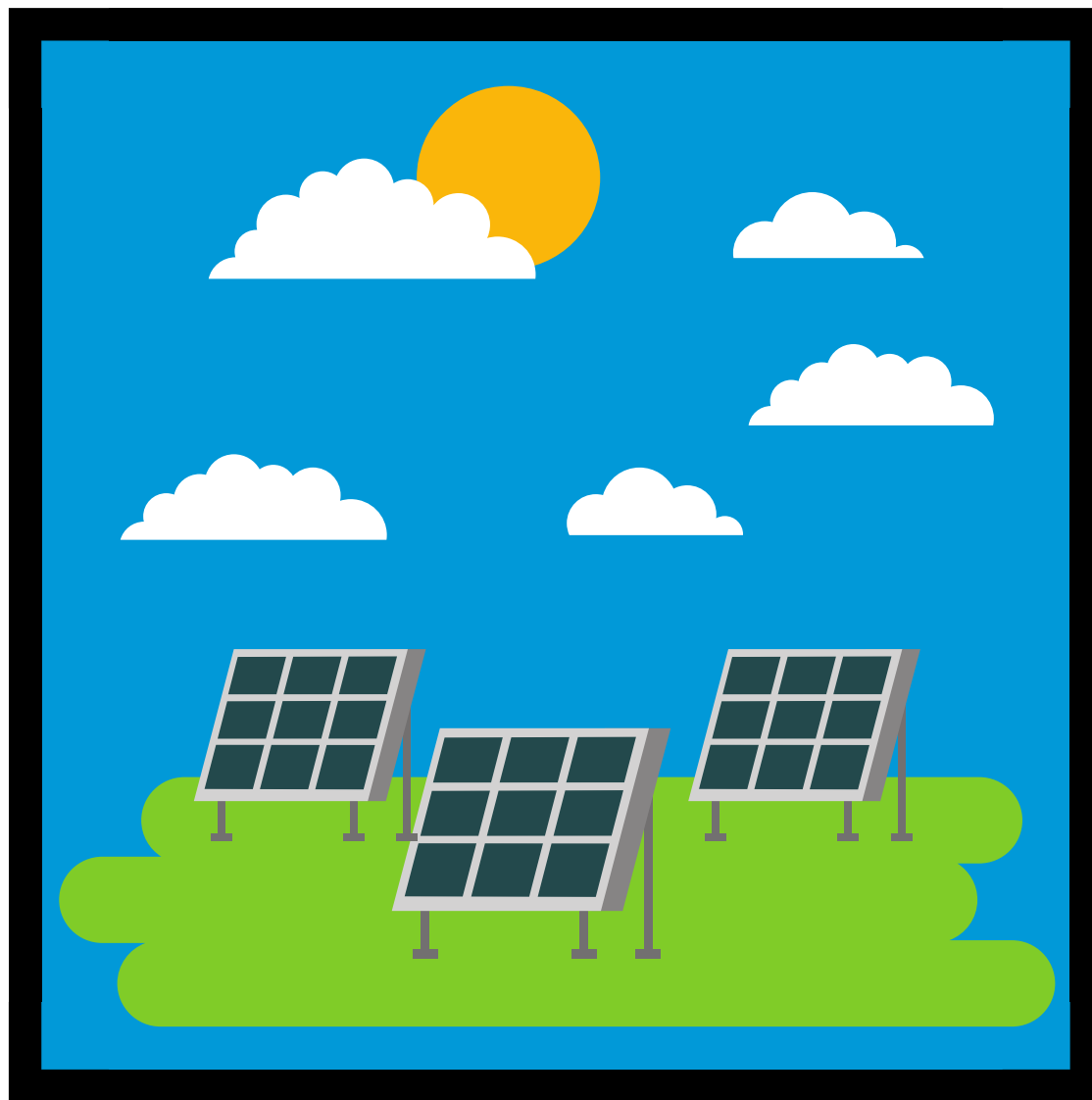
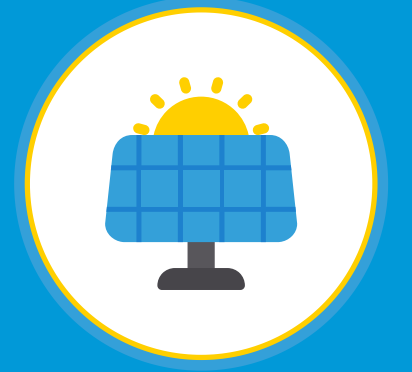




Show me your
solar invention!



The future of solar energy!



- As solar technology gets better and cheaper, more people around the world can start using solar energy
- The goal is for solar panels to supply a big part of the electricity that countries like the United States use.
- People and companies like Con Edison are also working on ways to store solar energy, so we can use it at night or when it's cloudy.

Think Pair Share

Think about a world that runs on solar energy? What would that look like? How would it benefit the planet?



With your partner:

- Think about the topic.
- Pick a question.
- Share your thoughts.



What I **k**now?

What I **w**onder?

What I **l**earned?

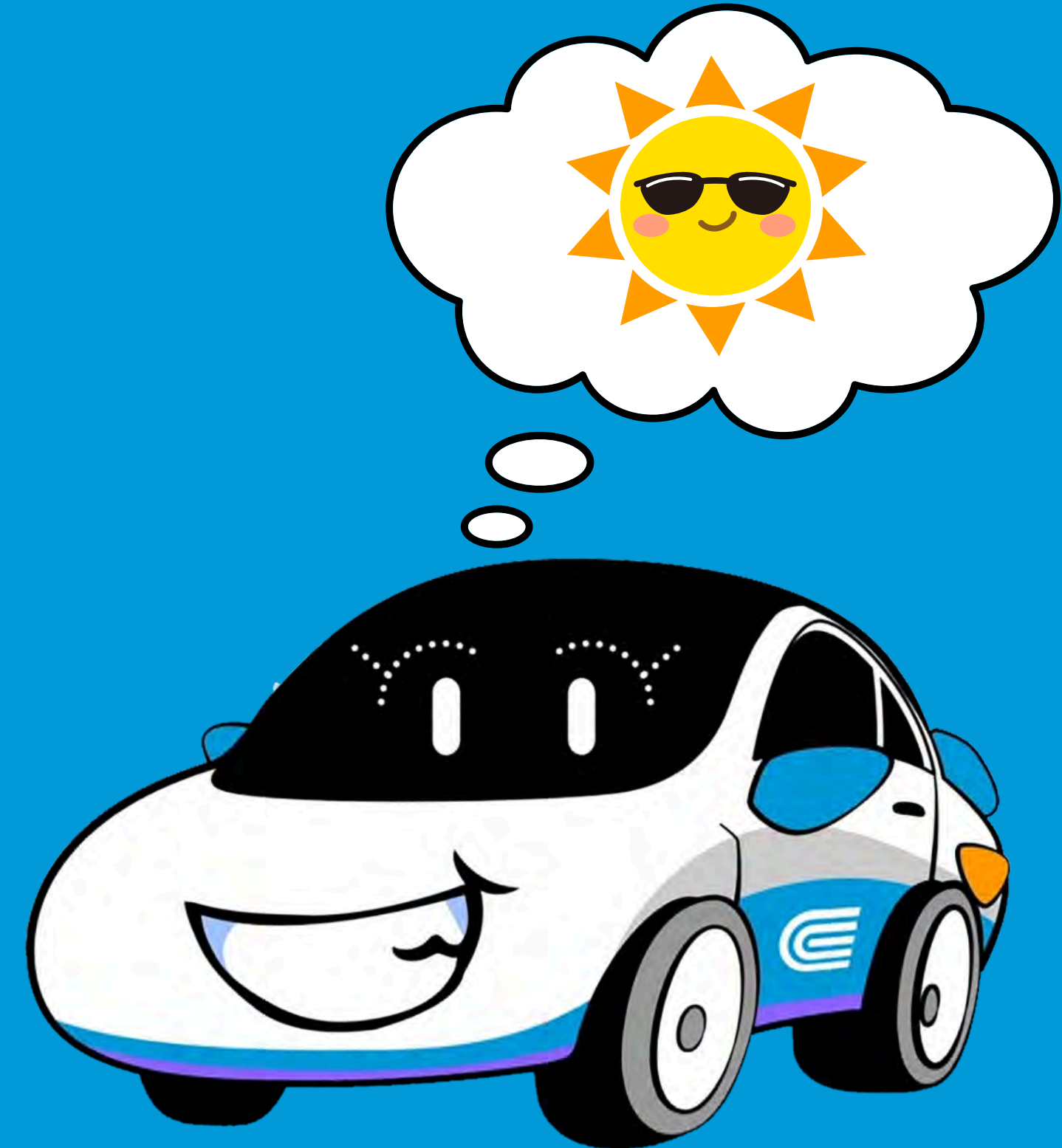
What is Solar Appreciation Day?

Solar Appreciation Day is a special day set aside to learn about and celebrate the sun's power.

How can you help with Solar Appreciation Day?

Spread the word about the sun's power, teach your friends and family about the benefits of solar energy, and continue to learn about the sun's energy!

Based off of what you've learned about solar energy, how can solar energy benefit the planet? How can you use Solar Appreciation Day to share what you know about solar energy and its benefits?



Name: _____

Date: _____

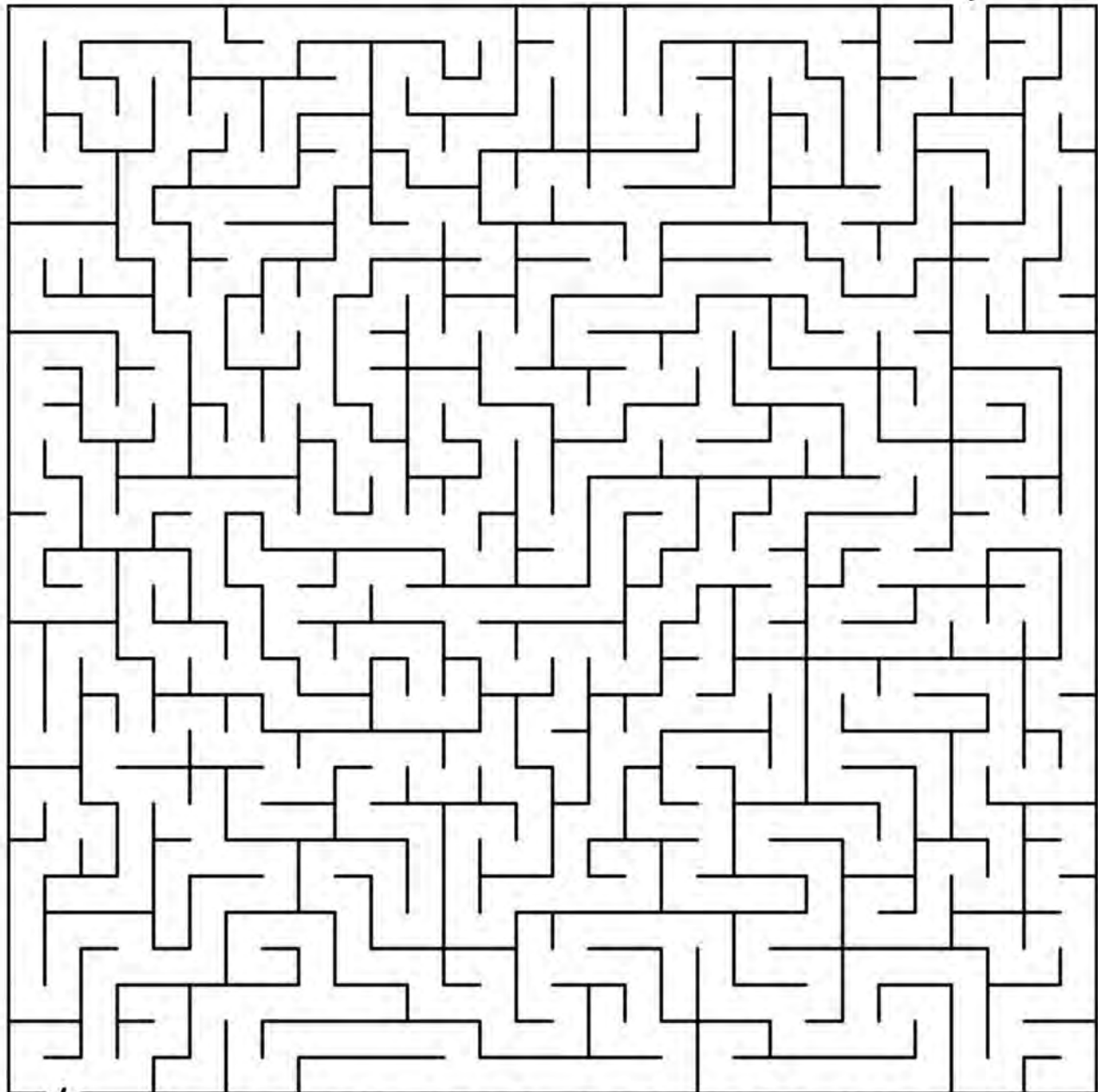
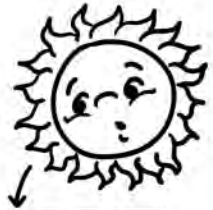
WHAT IS SOLAR ENERGY?

Solar Energy is energy collected from the sun. Solar energy is a renewable clean energy that doesn't pollute the earth.



Instructions

Help the Sun navigate the maze to get to the solar panels on the house.



SOLAR ENERGY



Name: _____

Date: _____

SOLAR ENERGY

Solar energy is the future. The sun is a clean form of renewable energy and by using it instead of other non-renewable sources, you help the planet. The items below are things we now commonly see powered by solar energy.



EV CAR
CHARGERS



HOUSES



BUSSES



STREET LIGHTS

DRAW IT

In the box below, draw something that you would like to see powered by the sun in the future.

Name: _____ Date: _____

Solar Appreciation

1. Solar panels capture _____ from the _____ and turn it into _____ that we can use to _____ things like homes and schools.

2. The first modern solar panel was made back in 1954, which was the start of using sunlight to create electricity.

- ☐ True
- ☐ False

3. Solar panels are made of lots of small parts called _____.

- a. solar rocks
- b. solar cells
- c. solar seeds

4. Using solar energy can help reduce our reliance on burning fossil fuel.

- ☐ True
- ☐ False

5. Solar power can be used in _____.

- a. homes
- b. schools
- c. places where it's hard to get electricity
- d. none of the above.
- e. all of the above

6. Solar appreciation day is celebrated on the _____ Friday in March of every year.

- a. first
- b. second
- c. third
- d. fourth

Name: _____ Date: _____

7. New technology is failing to help solar panels work in less sunny places and efficiently.

- ☐ True
- ☐ False

8. Scientists at the National Renewable Energy Laboratory have made solar cells that can turn _____ of the sunlight they catch into electricity.

- a. 74%
- b. 27%
- c. 20%
- d. 47%

9. Solar appreciation day _____.

- a. is a special day set aside to learn about and celebrate the sun's power.
- b. recognizes how the sun helps us by providing clean energy that doesn't pollute our planet.
- c. is celebrated on the second Friday in March every year.
- d. none of the above.
- e. all of the above.

10. The goal is for solar panels to supply a big part of the electricity that countries like the United States use.

- ☐ True
- ☐ False

Name: _____ Date: _____

Solar Appreciation

- Solar panels capture _____ from the _____ and turn it into _____ that we can use to _____ things like homes and schools.**

light **sun**
electricity **power**
- The first modern solar panel was made back in 1954, which was the start of using sunlight to create electricity.**

☒ **True**
☐ False
- Solar panels are made of lots of small parts called _____.**

a. solar rocks
b. solar cells
c. solar seeds
- Using solar energy can help reduce our reliance on burning fossil fuel.**

☒ **True**
☐ False
- Solar power can be used in _____.**

a. homes
b. schools
c. places where it's hard to get electricity
d. none of the above.
e. all of the above
- Solar appreciation day is celebrated on the _____ Friday in March of every year.**

a. first
b. second
c. third
d. fourth

Name: _____ Date: _____

7. **New technology is failing to help solar panels work in less sunny places and efficiently.**

- ☐ True
- ☒ **False**

8. **Scientists at the National Renewable Energy Laboratory have made solar cells that can turn _____ of the sunlight they catch into electricity.**

- a. 74%
- b. 27%
- c. 20%
- d. **47%**

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- b. recognizes how the sun helps us by providing clean energy that doesn't pollute our planet.
- c. is celebrated on the second Friday in March every year.
- d. none of the above.
- e. **all of the above.**

10. **The goal is for solar panels to supply a big part of the electricity that countries like the United States use.**

- ☒ **True**
- ☐ False