



# EXPLORE IT!

## Homes of the Future

### Subject: Energy Efficiency

We have the imagination to create anything. Take a walk inside and outside your home. Is there some way you could make it better? Could you put in solar panels or plant trees near your windows to be efficient?

### Materials List

1. This worksheet
2. Pencil or pen
3. Colored pencils or markers

**Grade:** 4th

**Time:** 45 minutes

**Vocabulary:** efficiency, renewable energy

**NGSS:** 4-PS3-4. Apply scientific ideas to design, test and refine a device that converts energy from one form to another.



### Instructions

1. Take a walk through your home, then walk outside and look at other houses around your community. With the help of your scavenger hunt, notice all the ways houses are being efficient.
2. Notice the different house designs in your neighborhood.
3. Now that you have explored your own home and your neighborhood try designing an energy efficient home.
4. Let your imagination run wild as you draw!

*See other side*

### Table Talk

1. How did you make your home more efficient?
2. Does location influence the renewable energy source available to power your home?



# Efficient Scavenger Hunt

**Efficient:** performing in the best possible manner with the least waste of time and effort.

## Instructions

Take a walk around your home and outside around your community. Check off all these items as you see them and count how many total you see.



**LED Lightbulb**

Total: \_\_\_\_\_

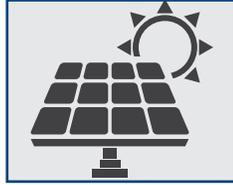
LED is the most efficient lightbulb, has little wasted heat energy and gives off mostly light energy.



**Energy Star Appliance**

Total: \_\_\_\_\_

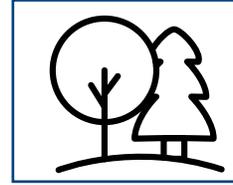
Energy Star appliances use the least amount of energy to accomplish the task.



**Solar Panels**

Total: \_\_\_\_\_

A clean renewable energy source, solar panels power up homes while creating little pollution.



**Tree Planted Near Window**

Total: \_\_\_\_\_

Trees that lose their leaves and let in heat in the winter also provide shade in the summer.



**Power Strip**

Total: \_\_\_\_\_

Power strips make sure your electronics are off fully and not continually using energy.

## Take notes or draw pictures of what you see:

| Designs of homes now<br>(example: slanted roofs) | What to change to be energy efficient<br>(example: solar panels) |
|--------------------------------------------------|------------------------------------------------------------------|
|                                                  |                                                                  |

## Draw your futuristic home.

"It turns out that imagination — homes with rocket roofs, solar-powered pyramids and precariously perched tree houses — might actually be up to the tall task of adapting to the challenges the future might bring." - Vittoria Traverso, Atlas Obscura, adapted by Newsela staff, published 10/19/2017