



BE A PLANET PROTECTOR

ENVIRONMENTAL EDUCATION
ACTIVITIES – K to 2nd

For Teachers:

§ Green Living Science is a non-profit organization dedicated to increasing awareness of environmental literacy in Detroit. Since 2012 we have partnered with DPSCD to increase awareness of environmental issues facing our city, state and planet.

§ Our educators designed this presentation as a resource for YOU! Simply pick a slide and pop it up at the beginning of class to have your students think more about what they can do to help our planet! The answers along with informational source are in the notes section of each slide.

Reducing means making less waste.

If you throw out your plastic water bottle each school day, you'll have thrown out almost 200 plastic water bottles by the end of the school year! However, if you use the same plastic water bottle over and over, you'll have *reduced* the amount of plastic you use.



Turn and Talk:

Talk with a partner about the ways to practice reducing waste like paper in your classroom.

Directions: After students have had time talk with a partner about how to reduce material usage in the classroom allow time for students to share. You can write these down and post them to encourage students to practice them daily. Be certain to discuss how students can reduce the amount of paper they use by using scrap paper.

Image Source: <https://www.rappler.com/science-nature/environment/203979-plastic-battle-single-use-bottles-refilling>

Great article about the



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Reusing is another way to make less waste. There are many different ways to practice reuse; you can refill bottles of water, create an art project or shop at thrift stores.

Write Down:

One way you can reuse materials in the classroom



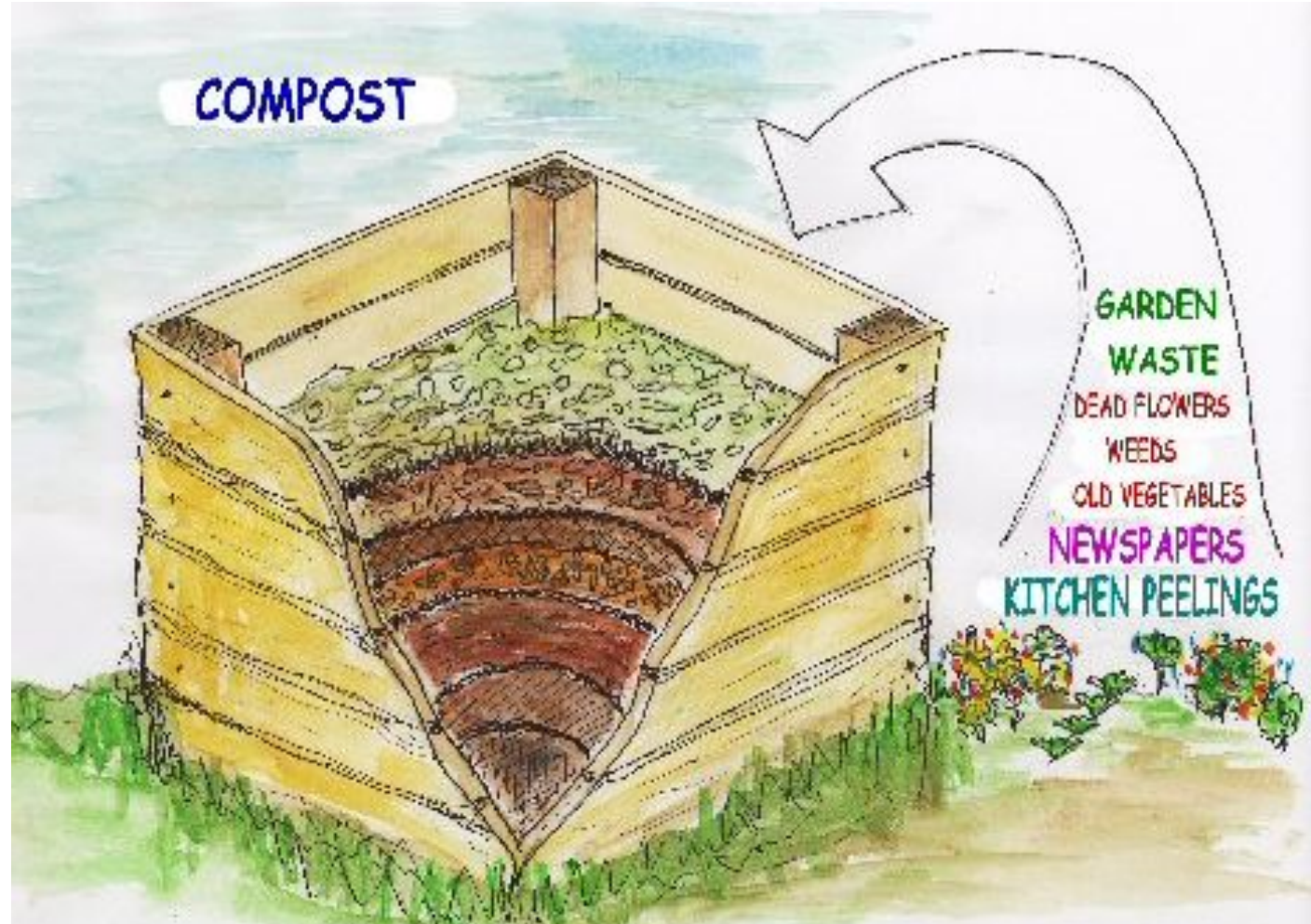
Not *all* of the materials we use should be thrown away; some can be recycled or composted.

COMPOST:

is the process of reusing unwanted food's nutrients to improve soil, and help plants grow better.

Turn and Talk:

How could you compost in your neighborhood?



Just across the Ambassador Bridge in *Canada*, many cities use *a three cart system* to get rid of household waste. One cart is for *trash*, one for *recycling* and one is for *compost or food waste*. All are taken out to the curb and collected just like the trash in Detroit.

Turn and Talk:

Do you think this system could work in Detroit?



Explain why you think this waste disposal system could or could not work in Detroit.

Write:

Predict and write what you think the people in the image are doing.



Watch and Draw:

Watch this short video about how recyclables are separated, then draw what you think this machine looks like.



Americans buy more bottled water than any other country in the world, adding 29 billion water bottles a year to the problem. In order to make all these bottles, plastic manufacturers use 17 million barrels of oil. That's enough oil to keep a million cars going for twelve months.

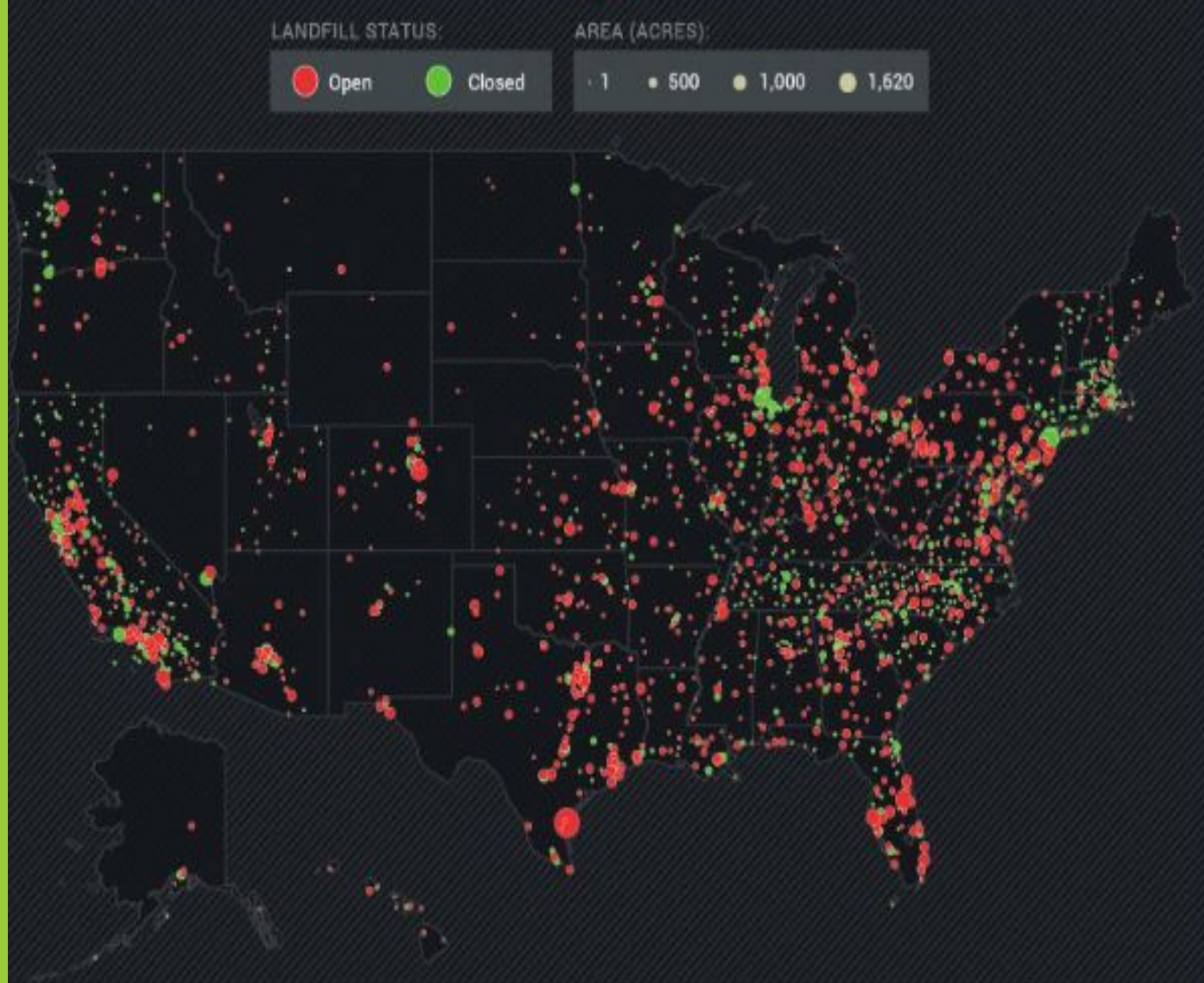
Create a math story problem:

Using the information from the paragraph above, write a math story problem and solve it!



Turn & Talk:

What do you think the dots are showing on the map?





SOLVE IT!

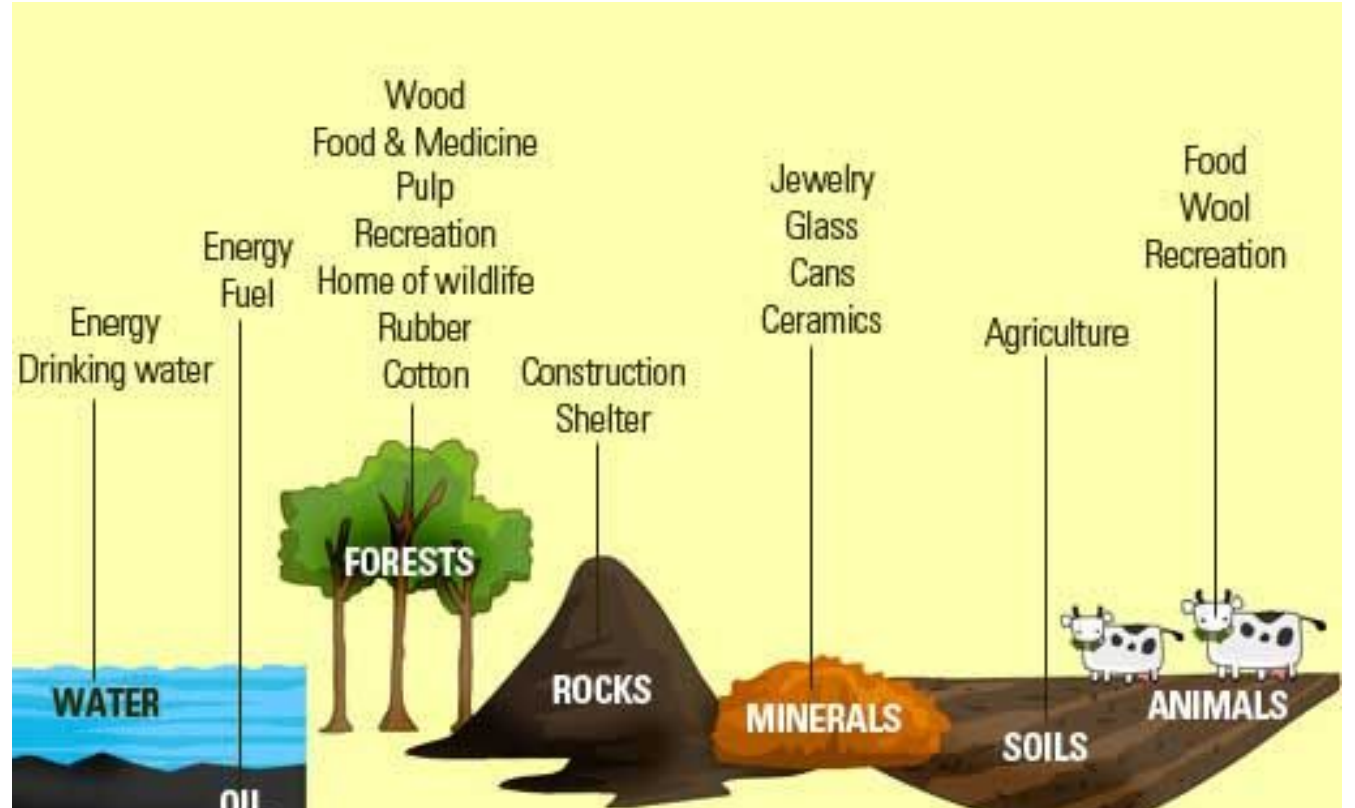
The average person makes over 4 pounds of trash every day.

1. How much trash does your class create in one week?

Turn and Talk:

The consumption of the Earth's natural resources for human use has _____ over the last 40 years.

- a. Doubled
- b. Tripled
- c. Stayed the same



Each year the average American uses **222 plastic water bottles**.

If all the bottles are recycled, it would **save 7 gallons** of oil from being used.

SOLVE IT!



1. How many gallons of oil are used to make one plastic bottle?
2. How many plastic bottles can be made with one gallon of oil?

Recycling is fun

Empty plastic bottles

Cans of soda

Yes, paper goes in too

Cardboard boxes

Lets use the blue bin!

Everyone join in!



Turn and Write:

In an acrostic poem, the key word is written vertically as you see below. Each letter of the word then becomes the first letter of a phrase related to the theme of recycling.

Using the word **RECYCLE** create another acrostic poem with your neighbor. Look at the example on the left.

Write:

1. Number your paper 1 to 10.
2. Look at the pictures below and determine if each is trash or recyclable in your curbside cart at home.
3. If the material is recyclable, put R next to the number on your paper.
4. If the material is trash, put T next to the number on your paper.

1. Glass bottles



2. Ketchup packet



3. Apple Core



4. Cardboard box



5. Dirty Paper Towel



6. Paper



7. Plastic Bottle



8. Sandwich Bag



9. Metal Cans



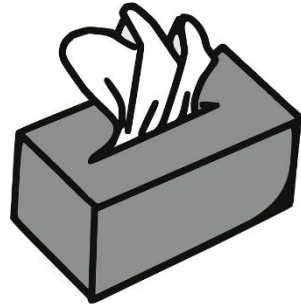
10. Newspaper



Paper can be recycled and changed into many new products.



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Tissues



Toilet Paper



Construction Paper



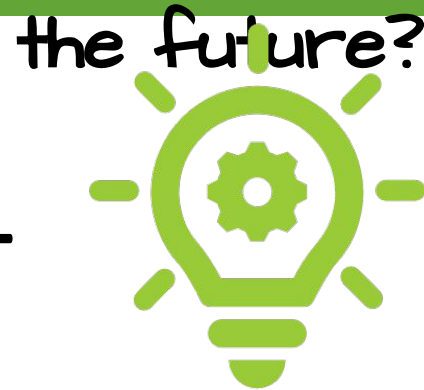
Paper Towels

Paper

Draw: What new products could be made out of recycled paper in the future?



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Write or Draw:

Examples of upcycling that you have seen or used.



Rolled Newspaper Beads



Tire Planters



Koolaid Pouch Bags

Upcycling is the process of reusing and converting old materials into new products. There are many examples of upcycling and unlimited ways to upcycle.

Design:

Draw and label design for a sustainable city that has little impact on the environment.

Be sure to include the three concepts below in your design:



1. Transportation – how people will get around
2. Waste – where does it go, how it is collected
3. Electricity – how is electricity generated and monitored

Write:



Predict and write what you see in this image and what could have caused this.

Littering: Whether or not you are aware of it, you made the CHOICE to brush your teeth this morning. That choice yielded a positive outcome, good dental hygiene is good for your overall health. When someone litters, they make the choice to do so, which leads to negative outcomes.

Turn and Talk:

1. How is littering a choice?
2. What are the consequences of littering?



Beyond the 3Rs: Reduce, Reuse, Recycle

Sometimes practices the 3Rs is not enough when it comes to helping the Earth.

Write:

What are other R words that could be added to the 3Rs that could be practiced to help the planet?

Be sure to include an explanation why your R word is a good addition.





For more information about Green Living Science or to help your students receive a free recycling cart at home please contact info@greenlivingscience.org or call 313-871-4000 Ext. 3