

HELPING THE ENVIRONMENT, ONE HAND AT A TIME!

HANDS-ON ACTIVITIES FOR PRE-K AGE GROUP



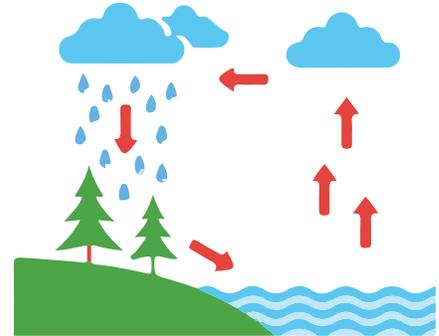


WATER CYCLE IN A BOTTLE



YOU WILL NEED:

- Plastic water bottle
- Water
- Blue food coloring (optional but helpful)
- Sharpie



STEP 1: Draw clouds, a sun, water and land on the sides of the bottle.



STEP 2: Mix about a 1/4 cup of water and blue food coloring for each bottle and pour the water into the bottle.

STEP 3: Place by the window!



HOW THE WATER CYCLE WORKS:

Evaporation: turning from liquid into vapor (gas)

Condensation: Turning from vapor gas to liquid

Precipitation: the product of condensation that falls from the sky (rain, sleet, snow, hail)

The sun heats up the water in lakes, streams, oceans, rivers, etc. and the liquid water travels into the air in the form of steam or vapor (water vapor).

When the vapor hits the cooler air, it changes back to its liquid form and creates clouds. This part of the cycle is called condensation. When enough of the water vapor has condensed and the clouds are heavy, the liquid falls back down in the form of precipitation. The water cycle then starts over! The cycle is continuously in motion!

YOUR BOTTLE AND THE WATER CYCLE:

You will be able to see the general process of the water cycle in this bottle. Water vapor will rise from the water at the bottom of the bottle and you will see this steam in the bottle (evaporation). Then, droplets will form on the walls of the bottle (condensation). These droplets will then slowly fall down the walls of the bottle back to the bottom (precipitation).



WATER AS A RESOURCE: EGG HEADS GARDENING ACTIVITY



One of the ways in which water is a resource is in the growth of plants. In order for plants to grow, they need water, nutrients, air, and sunlight. This activity will demonstrate the need for water in the growth of the “hair” on these eggs.

YOU WILL NEED:

- empty egg shells (try to break off the top to empty them, so you have a good size shell left to use)
- markers
- stick-on googly eyes (optional)
- cotton balls
- cress seeds
- empty egg box

STEP 1: Wash out the egg shells and sit them in the egg box to keep them steady (on a cotton ball cushion to raise them up a bit if you need to).

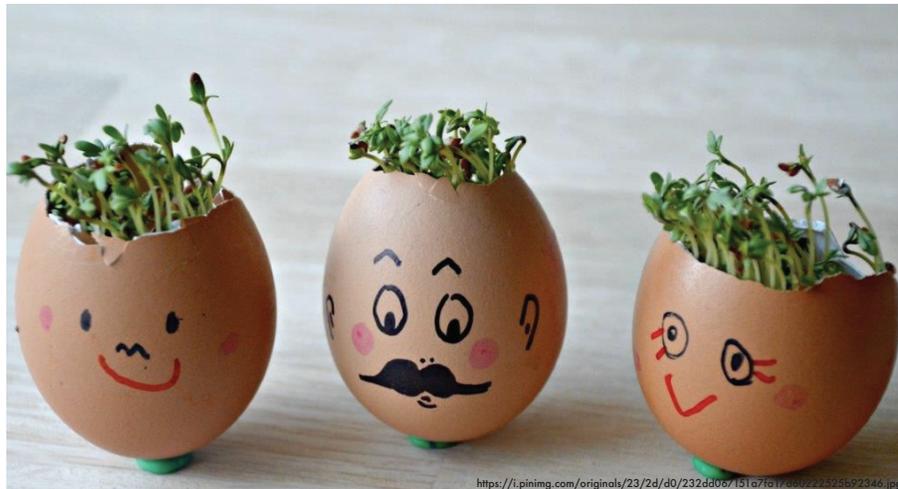
STEP 2: Draw on some faces, using the googly eyes if you have them. You could do self-portraits or silly faces!

STEP 3: Put some cotton balls inside the shells and dampen them with some water.

STEP 4: Sprinkle cress seeds all over the cotton ball – good coverage will give it a full head of hair.

STEP 5: Place the carton with the shells on a windowsill and wait for the hair to sprout. It will only take a couple of days. Check on the cotton balls periodically and if it is beginning to dry out, add a little more water to keep it moist so the hair can grow.

 **WATCH AS YOUR LITTLE FACES GROW HAIR ON THEIR HEADS! AND NOTE THE USE OF WATER AS A RESOURCE FOR GROWTH!**



CONSERVATION:

HOMEADE INDOOR COMPOST BIN

YOU WILL NEED:

- **PLASTIC COFFEE BIN WITH LID:** Folgers bin works well because it is the perfect size and comes with a lid that has a decent seal. However, you can use any sort of bin with a removable lid. It can be plastic, metal, or ceramic. Just keep in mind that the lid has to be drilled into.
- **DISPOSABLE CHARCOAL FILTER:** you can find these at any hardware store, or any pet store in the kitty litter section, or online...
- **DRILL WITH 1/4" DRILL BIT: ADULT USE ONLY;** to make the holes neat and round in the lid, can be smaller than 1/4", but would need to make a few extra holes. Shouldn't go larger because you risk the odor escaping.
- **GLUE GUN AND GLUE STICK OR KRAZY GLUE**

HOW TO DO IT:

STEP 1: Clean the container you are using with warm, soapy water. Be sure to dry completely before using.

STEP 2: Have adult drill holes in the lid. Take the drill and 1/4" bit and begin to drill 8-10 holes in the lid. You will get some straggly bits around the edges of the holes, so just pull them off or take scissors to them.



STEP 3: Take the filter and cut to size for fitting inside the lid. If you couldn't find one large enough, then fit two together with a tight seam. This is to prevent most of the odor from escaping.

Keep in mind: because this is a kitchen counter compost bin, the food should not be kept in there too long, anyways. Don't let the contents fill to the point where it touches the filter.

Take the glue and add a few dabs to the underside of the lid, attach the filter(s) in place and press firmly while drying.



START COMPOSTING: fruit and vegetable scraps, eggshells, grass clippings, coffee grounds, tea bags, paper shreds and paper egg cartons are all things you can compost! When your bin is full, you can use the compost for soil and nutrients for plant growth!



COMPOSTING NOT ONLY PROVIDES YOU WITH ORGANIC FERTILIZER FOR YOUR PLANTS AND PROPERTY, BUT IT IS ALSO GOOD FOR THE ENVIRONMENT. IT CUTS DOWN ON WASTE AND FREES UP THE SPACE IN THE LANDFILLS.

Activity idea and images from backyardboss.net

HELPFUL TIPS:

Have a stash of shredded paper or dry leaves on hand: Add a handful or two every time you add food scraps or coffee grounds to your bin. This will keep it from getting too soggy, as well as provide carbon to your bin.

Turn the contents of your bin often: This helps the bin warm up a bit and increases microbial action. Mixing the contents is a good way to avoiding soggy and dry pockets in the bin. You can use a shovel or hand trowel to move the contents of the bin around, or, if you are using a bucket, just roll it back and forth a few times to mix it.

Smaller items break down quicker: Chop food fairly small for the quickest results, and shred your paper or tear it into thin strips.

Helpful Tips from thespruce.com

UNDERSTANDING POLLUTION: WATER POLLUTION ACTIVITY

YOU WILL NEED:

- container of water
- small toy sea animals (or something similar)
- rocks
- cooking oil



STEP 1: Pollute the water. In order to learn how important it is to prevent pollution, we must first cause pollution and observe its effects. Place a few tablespoons of cooking oil into the water to simulate water pollution. Then place the rocks and animals into the water.

STEP 2: Using a sand sifter or strainer, remove the rocks and animals from the water.

QUESTIONS TO THINK ABOUT: How do the animals feel? What will happen if the pollution stays on them? Can we take the pollution off with our hands? Is it easy to remove from the water?

STEP 3: Once the animals are removed from the polluted water, place the oil covered animals in a smaller bowl of soapy water and scrub them with a toothbrush.



THINK ABOUT HOW DIFFICULT IT IS TO REMOVE THE EFFECTS OF POLLUTION ONCE THEY ARE DONE. TALK ABOUT WAYS TO PREVENT THIS POLLUTION FROM HAPPENING IN THE FIRST PLACE. RIDE BIKES AND WALK PLACES, RECYCLE, COMPOST, AND TURN OFF LIGHTS AND ELECTRONIC DEVICES WHEN NOT USING THEM. WE ALL HAVE AN IMPACT ON SAVING OUR PLANET!

TRASH REDUCTION: NEIGHBORHOOD SCAVENGER HUNT

YOU WILL NEED:

- gloves
- trash bags – plastic grocery bags and larger trash bags to consolidate
- scavenger hunt checklist (attached)
- pen or pencil
- hand sanitizer



STEP 1: Find a location! For some, simply taking a walk around the streets of your neighborhood will allow you to find litter to pick up. For others, find a nearby park, playground, forest or beach, as long as it is public property.

STEP 2: Create a scavenger hunt list, or use the one attached to this. Gather your supplies and fill up a bottle of water to keep you hydrated.

STEP 3: Go clean up! If you are with other people, assign sections for each individual to work on. Otherwise, walk around and check off litter from your checklist, putting it into your bags. Even if there is litter that isn't on your list, pick it up as long as it is safe!

(Be sure to note no-touch items: broken glass or sharp metal, anything that comes from the body of an animal or human)

STEP 4: Consolidate the trash and discuss what you learned, anything you were surprised to find, and how you felt having a part in helping our planet! Don't forget to use hand sanitizer right after, and wash your hands thoroughly when you return home.

SCAVENGER HUNT CHECKLIST

CAN YOU FIND ALL THE THINGS ON THIS LIST?



SODA CAN OR JUICE BOX



WATER BOTTLE



CANDY OR SNACK WRAPPER



PAPER



PLASTIC FORK, SPOON, ETC.



FAST FOOD WRAPPER/BAG



STRAW OR STRAW WRAPPER



SOMETHING BIGGER THAN YOUR HAND



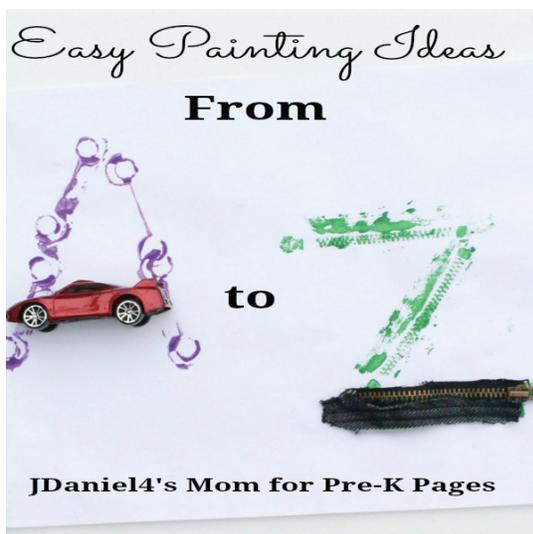
WHAT IS THE STRANGEST TRASH YOU FOUND?



RECYCLING:

PAINTING WITH RECYCLED ITEMS A-Z

PAINTING WITH RECYCLED OBJECTS is a fun way to explore painting ideas using a wide variety of objects. Do a grand search to find objects to paint with that begin with each letter of the alphabet. Some objects may not be recycled, but you will be using the object in a new or different way. That is a form of recycling, too!



Lay out all the recycled materials and found objects. Then, explore various designs that the objects make and create your recycled art. To get you started, below is a list of example materials from A-Z

- A= Automobile (You could use acorns instead if you have some.)
- B= Beads on a Mardi Gras necklace
- C= Comb
- D= Droppers
- E= Elastic Strip
- F= Fork
- G= Game Pieces
- H= Hairbrush
- I= Ice Pack
- J= Juice Box (We used an empty juice box.)
- K= Keys
- L= Lids
- M= Marbles
- N= Nuts
- O= Onion Skin
- P= Paper clip
- Q= Q-tips
- R= Ribbons
- S= Straw
- T= Tube Made of Cardboard (We used a cut down paper towel tube.)
- U= Umbrella Tops Made Cupcake Liners (Yes, This is a little bit of a stretch.)
- V= Veggie and Yogurt Pouch Caps
- W= Wine Cork
- X= Xylophone Stick
- Y= Yellow Telephone Book Page (We wadded ours up into a ball to paint with it.)
- Z= Zipper from Old Blue Jeans with Worn Out Knees



USING RECYCLED MATERIALS OR REPURPOSED OBJECTS FOR PAINTING WILL DEVELOP THINKING AND CREATIVITY SKILLS, WHILE ALSO SEEING THE BENEFITS OF REUSING AND RECYCLING!