



**LITTER  
TO**

**GLITTER**

**Athlete and Engineer Activity Badges**

**March 2008**

**Thunderbird District, Capitol Area Council**

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## OPENING AND CLOSING CEREMONIES

### C-U-B-S

Cub # 1: **C** stands for "Cut Back". Reduce the amount of trash and waste you make.

Cub # 2: **U** stands for "Use". Use and Reuse things again and again instead of throwing them away.

Cub # 3: **B** stands for "Be Sure". Be sure to recycle whatever you can instead of throwing it in the trash.

Cub # 4: **S** stands for "Save" together we can save our planet from too much pollution.

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### LITTER TO GLITTER OPENING

Seven placards – one each for the letters in LITTER. Each should have one letter and a picture of a piece of litter on front and the text on back in LARGE print. One placard with a large G done in glitter on front and the text on back in LARGE print.

Cub # 1: *(Holding L)* Let's all

Cub # 2: *(Holding I)* Invest our

Cub # 3: *(Holding T)* Time and

Cub # 4: *(Holding T)* Talents to

Cub # 5: *(Holding E)* Embellish, Enhance and

Cub # 6: *(Holding R)* Recycle and Reuse

Leader: *(From the side)* And then what will happen?

Cub # 7: *(Enters with the letter G and stands before the L)* We will turn Litter into Glitter

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### RECYCLE LITTER OPENING

Preparation: paper shredder, white, blue, red sheets of paper; flag in shredder container.

All of us can keep our land cleaner by picking up scraps of paper and recycling it, some are white (place white paper in shredder), some are blue (place blue sheet in shredder) and some are red (place red paper in shredder). Everything we do to reduce litter will make our land a better place to live because it is our United States of America and we can help make it a cleaner place to live. (Pull out flag) Please stand as we repeat the Pledge of Allegiance.

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### RECYCLE OPENING

R: Reused and renew

E: Energy shortage

C: Clean environment

Y: Yesterday's refuse – tomorrow's resource

C: Corrugated

L: Litter control

E: Energy saved is our gain.

All boys say together: Recycle today for a more efficient America tomorrow. Please stand and say the Pledge of Allegiance.

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## RECYCLING

Materials: 2 foot strip of paper about 2" wide (needs to be big enough to see), tape, marker, scissors, large picture/drawing of recycling logo, several products with recycling labels on them

*[While the Cubmaster talks, he/she will be building a möbius strip.]*

Cubmaster: I have with me today this long strip of paper. *[Picks up paper]*

I'm going to attach the ends here with tape *[Put the ends of the paper together forming a loop, but before taping, twist one of the ends - now tape]*

I now have a loop that has only one side. *[Ask a Cub Scout from the audience to come up].* My Cub Scout volunteer will show us. He's going to draw a line down the middle of our loop and won't have to pick up his pen. *[Cub Scout begins to draw the line, Cubmaster helping if needed].*  
*[Thank the Cub Scout and ask him to sit down]*

This is a special loop that goes on and on and on and as you follow the side around – you just can't figure it out how that happened *[On a hard surface, shape the loop into a triangle (this will crease parts of it, but that's OK).]*

*[Hold up the triangle].* How many of you have seen something like this before? *[Parents may answer – and some boys may too – that it looks like the recycling logo.]*



*[If no answer comes immediately, hold up the picture of recycling logo].* Just as this loop, called a möbius strip, has no end, the same is true of recycling. *[Ask them if they know what recycle means]* The symbol reminds us that the materials and resources that we use everyday can be recycled. This means that rather than use them just once and throw them away, we find other uses for these materials. Sometimes we are able to use them for something else at home. Can anyone tell me about something they use again at home instead of throwing it away?

If you can't use it again at home you can recycle it by saving it in a particular container and giving it to a business that can use it again. Often they are able to use the recycled material to make something else. Can anyone tell me an item that you save so it can be made into something else?

So recycling means that we try to use something in some way so it never has to be thrown away and then used again and then they can be recycled again... and we hope that we can continue going on and on and on. It was a möbius strip that was the inspiration for the recycling logo that we have today and it is used all over the world.

It is difficult to break that unity of recycling... *[use scissors to cut the möbius strip along the line]* because it just keeps getting bigger. *[As you cut the möbius strip, you will now have not two strips, but a bigger strip].*

Recycling means we try to keep the cycle going. Let's do our part to start recycling all that we can today.

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### **THE GREEN PLEDGE CLOSING**

Cub 1: BECAUSE the world faces many problems like rain forest destruction, air and water pollution, and garbage disposal problems.

Cub 2: BECAUSE the earth's future depends on everyone helping.

Cub 3: I PROMISE to do my best to recycle, and to use the air, water, and other resources carefully.

Cub 4: I PROMISE to do my best to buy and use things that are good for the earth.

Cub 5: I PROMISE to teach others about the things to do to help the earth.

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### **DECLARATION OF DEPENDENCE ON NATURE CLOSING**

Scene: Lower or turn out room lights. Each Cub says his line then blows out a candle.

Cub #1: I am part of nature.

Cub #2: I have an effect on everything that lives.

Cub #3: I am bound together with all living things in the air, in the land, and in the water.

Cub #4: My life depends upon nature, upon its balance, upon its resources and upon the continuity of both.

Cub #5: To destroy nature is to destroy myself.

Cub #6: As a member of the human race, I am responsible for its survival.

Cub #7: I am a part of nature, and I will not destroy it, for if I do, my world will be a darker place.

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### **CLOSING CEREMONY: LOOKING AT THINGS DIFFERENTLY**

Equipment: Cardboard tube, sheet of newspaper, paper plate, sock

Cub Scout 1: This month we've tried to look at things differently.

Cub Scout 2: (holds up cardboard tube): This may look like just a cardboard tube, but I can use it to look at the stars.

Cub Scout 3: (holds up sheet of newspaper): This may look like just a sheet of newspaper, but I can use it to make a hat.

Cub Scout 4: (holds up paper plate): This may look like just a paper plate, but I can use it to make a mask.

Cub Scout 5: (hold up sock): This may look like just a sock, but I can use it to make a puppet.

Cub Scout 6: Try to look at things differently, and you'll be surprised what you, can see.

Remember, one person's trash is another person's treasure.

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### **THINGS WE HOLD DEAR**

Cubmaster: As good scouters, one of the things we should hold most dear is our environment. We need to keep it clean and do what we can to let other people know that we care about the outdoors and they should also. As we leave tonight, we should think about keeping our world clean for the generations yet to come.

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## ADVANCEMENT CEREMONIES

### THE GLITTER AWARDS

**Equipment:** For each award to be presented, make a trophy out of recycled materials. Glue cardboard tubes or clean aluminum cans together, spray paint gold or silver, and cover with glitter. Embellish the trophies with stickers or names of the boys receiving the awards. Pin the badge to a colorful ribbon, and hang the ribbon over the trophy.

The presenter of the awards should shine in bright clothes decorated with anything sparkly – rhinestones, sequins, beads, aluminum foil, etc. Add a pair of sunglasses. The room can be darkened and flashlights used as spotlights

**ANNOUNCER:** Welcome to the first ever Pack \_\_\_ Glitter Awards! And here is your host, Spark Lee Guy/Gal!

**CUBMASTER:** Thank you! I'm so happy to see all of you at the first ever Pack \_\_\_ Glitter Awards! In fact, I'm beaming! (Gives audience a great big smile!) The Glitter Awards honor those boys in our Pack who really shine! The boys we honor tonight radiate the Cub Scout spirit. They sparkle as they do their best to live the Cub Scout Promise. They gleam as they serve others and help the Pack go. They positively shine as they work to advance in rank. So, let's light up the night with the brilliant deeds of our Cub Scouts!

First, let's spotlight our Cub Scouts who have earned their Bobcat badge. They have followed the path of Akela and learned the fundamentals (with that emphasis on FUN!) of Cub Scouting. (Calls forward boys receiving Bobcat badges along with their parents or guardians. Present "trophy" to adults who hand award ribbons around boys' necks. Cubmaster gives "sparkling" compliments to each boy. Follow this pattern for all other badges.)

Tiger Cubs have been brilliant as they searched, discovered, and shared the world around them. (Presents awards.)

Next, the spotlight shines on the Wolf den. These boys have glowed and sparkled as they completed their 12 achievements and obtained the rank of Wolf. (Presents awards.)

The Bear Cub Scouts bask in the glow of the spotlight tonight! These boys were absolutely radiant as they learned about God, country, family, and self. They brilliantly completed 12 achievements to earn the rank of Bear. (Presents awards.)

Now, I'm proud to introduce our brilliant Webelos Scouts! These loyal Scouts are in the spotlight as they worked all month to earn their activity badges. (Presents awards.) Some of our Webelos Scouts have really sparkled, and they are now ready to step into the spotlight and accept the Webelos badge. (Presents awards.)

This brings the first ever (and maybe the last) Pack \_\_\_ Glitter Awards to a sparkling conclusion. Let's give our recipients a round of applause. (Leads appropriate applause) Remember, these boys are the light of our future. And their future is so bright, they have to wear shades! I'm your host, Spark Lee Guy/Gal, wishing you a shiny good night and brilliant Scouting!

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## **SOLUTION TO POLLUTION ADVANCEMENT CEREMONY**

This month our Cub Scouts have been learning about their environment and how to be part of the solution to pollution rather than contributors to the problem. They have learned to re-use, reduce, and recycle products in their home. They have participated in service projects to help fix existing problems in their neighborhoods and parks. Tonight we honor some of those service-minded Scouts who have completed requirements for their rank advancements.

The Bobcat Trail is the beginning of the Cub Scout adventure. The boys attaining this rank have just begun to learn the meaning of service to others as they learned the Cub Scout Promise and Law of the Pack. (Call boys and parents forward.)

Tiger Cubs learn the importance of cleaning up our world and how to conserve what we have. (Call boys and parents forward.)

In attaining the rank of Wolf, boys learn about our "Living World" and how to protect it. They have made observations about how their neighborhoods get dirty, and then gone into action to help be part of the solution to the problem. (Call boys and parents forward.)

The Big Bear Trail is full of choices, and some of those choices deal with "Taking Care of Your Planet" and "Sharing Your World with Wildlife." Boys attaining this rank have learned something of the interdependence of life on Planet Earth, that all living things need each other. (Call boys and parents forward.)

Learning the Outdoor Code is one of the requirements for attaining the Webelos rank. In preparing for Boy Scouts, these boys will be spending more and more time outdoors, and their conduct toward the environment could impact generations to come. (Call boys and parents forward.) The outdoor program is an important part of the Scouting movement. Be a leader in your school, your home, and your neighborhood to preserve this precious environment.

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## **RECYCLE, RECYCLE, RECYCLE ADVANCEMENT**

Make award cards out of recycled paper or card stock. Print the recycle logo on the award card along with the boy's name. Hang all the award cards on a display board divided into "Paper" "Plastic" "Cans" "Glass" and "Electronics." Place all of the Bobcats, Tigers, Wolves, Bears, and Webelos under separate headings.

Talk about the need to recycle the items we use and how manufacturers use the products we recycle to make other useful products. When we recycle, we conserve natural resources like trees and water. As each boy and his parents are called up, let him know that he is a resource that can be recycled, in a manner of speaking, because the things he learns as he advances in Scouting will be and should be used over and over in his life.

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## GAMES

### UNNATURAL HIKE

The leader will need to plan and set up the trail for this hike in advance. Collect items such as a plastic cup, extension cord, old tire, tennis ball, ceramic pot, clothes hanger, packing peanuts, a piece of clothing, old tools, a light bulb, tin and aluminum can, glass bottle, etc. Place these items along the trail as if they belong there. For example, hang an extension cord from a tree limb like a vine, have a tennis ball peeking out from a pile of leaves, scatter a few packing peanuts with pebbles at the side of the path. With a partner, Cubs will walk the trail. Let them know that they will be looking for items that aren't supposed to be there and making a list of what they see.

When the boys return they will probably have found more than you put there. Have them compare their lists with each other and then with your list. Talk about how it feels to see unnatural items in a natural setting. Ask them if they have noticed items in places they don't belong when they have been hiking or walking before. Ask how they think those items get where they don't belong. Talk about what they and others can do to prevent discarded items from invading our natural spaces. Go together to pick up the unnatural items from the trail they just walked. Take a few minutes to read the Outdoor Code or the principles of Leave No Trace together.

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### WASTE NO WATER

Fill a clean open-topped non-breakable container (a plastic spaghetti sauce jar or a soup can work well) with water for each team. Be sure the containers are the exact same size and filled to the brim with water. Set a start and finish point. At a signal, the first runner heads for the finish line, walks over the line, turns around and heads back to his or her team, and passes the container to the next person in line. At the end of the race, the team with the most water still in the container is the winner.

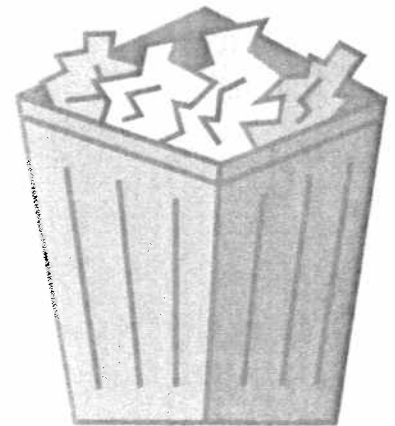
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### LITTER BASKETBALL

Equipment: Lots of crumpled newspaper, computer or copy paper, trash cans or recycling bins

Divide the den into two teams and seat them behind a throw line. Place the trash cans about 10 feet away. (the distance depends on the motor skills of your boys.) On the signal to GO, Cubs fire their paper "basketballs" at the trash can goals. After a set amount of time stop the game. Count the number of "basketballs" in each trash can. The team with the most "basketballs" in the cans wins. Work together to collect the paper and place it in a recycle bin.

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### LID TOSS

Equipment: Variety of plastic lids, permanent marker, tape or string.

Collect a variety of plastic lids from containers such as margarine tubs, yogurt containers, coffee cans, nut cans, milk jugs, etc. With a permanent marker, mark half the lids with the letter C for Cub and the other half with the letter S for Scouts. Divide the group into two teams, the Cubs and the Scouts. Give each team the appropriate set of lids. Use tape or string to mark target circles about 15-ft. away from a baseline. Each team must stand behind the baseline and sail their lid into their target. Award a point for each lid that land in the target. Take away a point if a lid lands in the opposing target.

If you have a large group, you can use more lids and add more teams, such as B for the Blue and G for the Gold. Try this game as a relay, with one boy from each team running up to the baseline, tossing his lid toward the target, and then running back and tagging the next player.

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### PUTT FOR POINTS

Equipment: Five empty cans large enough for a golf ball, golf club, paint, golf balls Paint five cans with bright colors. Paint or draw a point value on each can. (Suggestions: Paint the number 5 on one can, the number 10 on another, 15 on a third, 20 on a fourth, and 50 on the fifth.)

Set up the cans in a row. Give Cubs three golf balls and three chances to accumulate points for their team.

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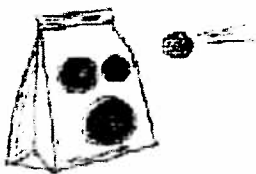
### LET'S GO BOWLING

Materials: As many empty 2 liter soda bottles that you want for bowling pins (10), water, ball, chalk or masking tape

When playing outside, mark off the spots for the bottles with chalk. That will make it easier for Cub Scouts who are going to set up the pins. For inside bowling you can make small Xs with the masking tape on the floor to mark where the bowling pins go. Fill the bottoms of the bottles with a small amount of water. Set up as many lanes as you like... Grab some balls and have fun setting up and knocking the pins down.



### BAGMAN TOSS



Recycle those grocery bags. You will need two grocery bags. On one side of one bag, draw 2 small circles for eyes and a larger circle for the mouth. Cut out the inside of each circle, being careful not to cut through both sides of the bag. Fold the top of the bag down about 1" and staple along the fold. Cut the other bag into strips about ½" wide and roll into loose balls. Round off the ball by wrapping with tape. Be sure the balls are small enough to go through the holes. Make at least 5 balls. Sit the

"bagman" on the floor or table. Toss the paper balls from 2 to 3 feet away. Mouth is worth 5 points, each eye is 10 points.

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## SKITS

### THE RECYCLE MACHINE

Personnel: 4 Cubs. In addition, another is hidden inside the machine.

Equipment: Large box made to look like, a recycle machine: other items mentioned.

Jack: Hey look, guys, a recycle machine!

Jim: Let's try it out! (Turns switch on)

Bob: Let's see what it does with this rusty, old pocketknife. (Drops it into machine. Machine makes noise and shakes, then out comes a new, shiny pocketknife.)

All Wow, it works Fantastic!

Tom: Maybe it can recycle this old, torn handkerchief. (Drops it in and the machine shakes and rattles and turns out a new hanky.)

Jim: That's really great! Here, machine, here's an old, broken pencil for you. Drops it in and the machine performs giving out a new one.)

Bob: It's your turn. Jack.

Jack: I wonder how this things works. (Steps up, peers inside, and the machine pulls him in.)

Jack: Help!

Others Oh no! What should we do? (All look worried)The machine finally makes a very loud noise and out pops Jack. A sign on him reads REJECT.)

Tom: Look! He has a sign around his neck. It says 'REJECT'. A Cub Scout's spirit is too strong and durable to ever be worn out.

Jack: Remember, to help save our American resources, follow this motto

All Reduce, Reuse, Recycle!

Use it up, wear it out, make it do, or do without!

### THREE R'S FOR PLANET EARTH

Cub #1: Gimme an R for REDUCE!

Cub #2: Walk or ride a bicycle when you can.

Cub #3: Turn off the light you when you leave a room.

Cub #4: Before you buy something, ask yourself if you really need it.

Cub #1: Gimme an R for REUSE!

Cub #2: Use a cloth towel, instead of a paper towel.

Cub #3: Donate old toys to a thrift shop or a homeless shelter.

Cub #4: Use an empty milk carton for a bird feeder.

Cub #1: Gimme an R for RECYCLE!

Cub #2: It takes less water to make newsprint from old newspapers than from trees.

Cub #3: Every time you recycle a soda can, you save enough energy to run a TV for three hours!

Cub #4: Recycled plastic is used to make toys and filling for sleeping bags.

Cub #1: Reduce what you use.

Cub #2: Reuse what you can.

Cub #3: Recycle the rest.

Cub #4: Three Rs for Planet Earth!



## SONGS

### **MAKE IT BETTER** (Tune: "Frere Jacques")

We are looking, we are looking,  
Around our world, yes we are.  
Trying to make it better.  
Trying to make it better.  
For everyone - everyone.

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### **TRASH SONG** (Sung to: "London Bridge")

Trash is blowing all around, all around, all around.  
Trash is blowing all around, all around the town.

Let's get busy and pick it up, pick it up, pick it up.  
Let's get busy and pick it up, all around the town.

Put the trash in a big trash bag, big trash bag, big trash bag.  
Put the trash in a big trash bag, all around the town.

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### **BRING BACK A CLEAN WORLD** (tune: My Bonnie Lies Over the Ocean)

The litter blows over the highway,  
The litter blows over the park,  
Unless we do something to stop it,  
The world will be litter-ly dark.

Chorus

Pick up, Pick up,  
Oh Pick up the litter you see, you see  
Pick up, Pick up  
Oh Pick up the litter you see, you see.

God gave us clean air for our breathing,  
Clean water in rivers and streams,  
We fill them with garbage and poisons,  
The only clean world's in our dreams.

Chorus

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**TRASH RAP**  
(Chant to a rap beat.)

We're Pack \_\_\_\_\_, comin' on through  
Recycling trash and we're doing it for you!  
We don't claim to have the whole solution.  
We're just trying to stop some more pollution!

We pick up the trash and pick up the litter.  
We tell our parents and the baby-sitter:  
"Garbage is a mess, it makes the world dirty  
If we keep this up, by the time we're thirty,  
We'll be sitting on piles of non-decaying plastic,  
Disposable diapers and pieces of elastic,  
Broken glass and old tin cans;  
Clean up the world! That's the name of this plan."  
We don't claim to have the whole solution,  
We're just trying to stop some more pollution!

The water is filthy; it's not fit to drink  
And the air around us, it really stinks!  
We have to start now to clean up our act  
Or we're gonna kill the Earth and that's a fact!  
The government is working to pass some legislation,  
To make the Earth fit for future generations.  
But, you'll agree that it's not enough  
It's up to us and we've got to be tough!

We're Pack \_\_\_\_\_, comin' on through  
Recycling trash and we're doing it for you!  
We don't claim to have the whole solution  
We're just trying to stop some more pollution!

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**PICK IT UP**  
(Tune: Row, Row, Row Your Boat)

Pick, pick, pick it up.  
Help to keep things clean.  
Cub Scouts and their families...  
A conservation team!

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## CRAFTS AND DEN ACTIVITIES

### INCREDIBLE EDIBLE LANDFILL

#### Materials

- Plastic cup or container (preferably clear)

#### Base Layer

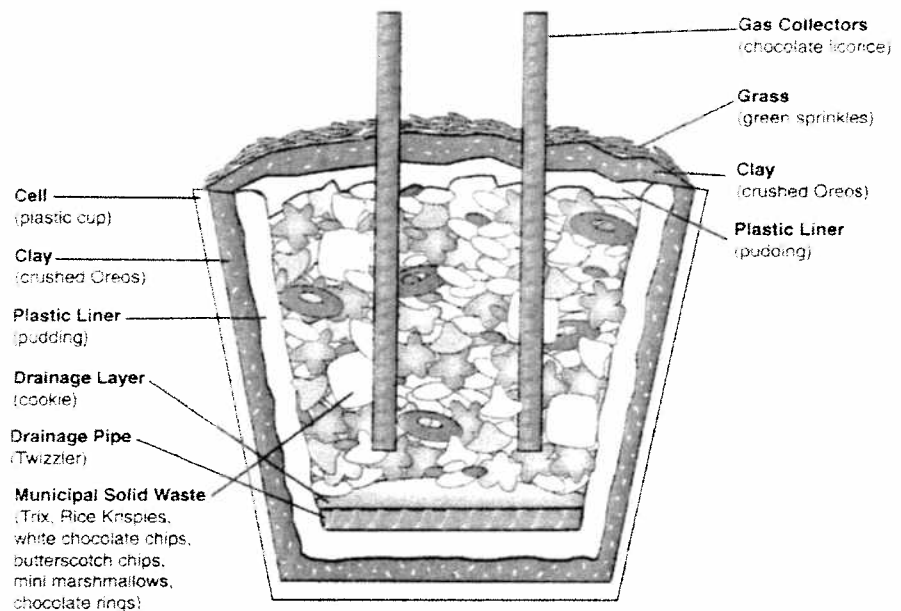
- 1 tsp. Oreo' cookie crumbs
- 2 tsp. vanilla pudding
- Two 4" Twizzlers"
- One shortbread cookie

#### Municipal waste (middle layer)

- 1 tsp. Trix® cereal
- 2 tsp. Rice Krispies® cereal
- 1 tsp. white chocolate chips
- 1 tsp. butterscotch chips
- Six mini marshmallows
- Four chocolate rings
- 1 tsp. mini M&M's"
- Chocolate syrup

#### Final Cap (top layer)

- 2 tsp. vanilla pudding
- 1 tsp. Oreo" cookie crumbs
- 1 tsp. green sprinkles
- Two 4" chocolate licorice pieces



Add each ingredient, in order listed, to plastic cup. The layers of a landfill are described below.

#### Base layer

Layer 1 (cell): Landfills range in size from four to six acres of land. The area, or cell, must be free of debris and able to hold the weight of the landfill mass. This is represented by the plastic cup.

Layer 2: This layer is three feet of clay which prevent fluids from seeping out of the landfill. This is represented by pressing 1 tsp. of Oreo cookie crumbs firmly into bottom of cup.

Layer 3: This layer is a thin liner of plastic which is designed to prevent leaks in the ground beneath the landfill. This is represented by adding 2 tsp. of pudding.

Layer 4: These are pipes that make the leachate collection system. They collect leachate which is a liquid that is squeezed out of the garbage. Leachate then travels to a treatment pond. This is represented by laying two Twizzlers across pudding.

Layer 5: This is a drainage layer that protects the pipes from being damaged. This is represented by laying the shortbread cookie on top of the Twizzlers.

(Note: No trash has been added yet.) Layers 1-5 are designed to protect the environment by disposing of garbage safely.

Municipal waste (middle layer)

Municipal solid waste is all of the garbage from peoples' homes and businesses.

Layer 6: This layer is composed of the following:

- Organic waste (Trix) is yard waste and food scraps.
- Paper (Rice Krispies) consists of cardboard, newspaper, and packaging products.
- Plastics (white chocolate chips) include milk and soda bottles and food containers.
- Glass (butterscotch chips) range from bottles to old building windows.
- Metals (mini marshmallows) include tin and aluminum cans and appliances or sheet metal.
- Tires (chocolate rings) include those from cars and trucks.
- Other garbage (mini M&M's) contains old toys, shoes, and clothing.

This is represented by adding 1 tsp. Trix, 2 tsp. Rice Krispies, 1 tsp. white chocolate chips, 1 tsp. butterscotch chips, six mini marshmallows, four chocolate rings, and 1 tsp. mini M&M's. Spread evenly.

Layer 7: This layer is the leachate that forms. It seeps through all of the layers to the pipes which filter the liquid out of the landfill. This is represented by squirting chocolate syrup around the edge of the cup.

Final Cap (top layer)

This outermost layer prevents rainwater from entering the landfill and keeps gases from leaving and polluting our air.

Layer 8: This layer is the top plastic barrier that seals the landfill. This is represented by adding 2 tsp. of pudding.

Layer 9: This layer is five to seven feet of soil. This is represented by sprinkling 1 tsp. of Oreo cookie crumbs onto pudding.

Layer 10: This layer is grass which prevents soil erosion. This is represented by adding 1 tsp. of green sprinkles.

Gas collectors. These pipes are placed in the closed cell and act as methane gas collectors. They prevent fires by collecting the gas produced from decaying trash. This is represented by inserting two chocolate licorice pieces vertically into the cup.

Interesting Facts:

- 40% of a landfill mass contains paper products which can easily be recycled.
- Energy saved from recycling one glass bottle will operate a 100-watt light bulb for four hours!
- The amount of methane gas collected at a landfill in one day could heat 20,000 homes or fill 36 Goodyear blimps!
- Trees cannot be planted on the tops of landfills in place of grass, because the tree's roots would allow rainwater to enter the landfill and harmful gases to escape.
- Tires do not decompose, they catch fire easily, and give off toxic fumes when burned.
- 200 billion TONS of waste is produced in the U.S. each year.

## PLASTIC BAG PARACHUTES

You will need:

- A plastic grocery bag, scissors,
- A ruler
- A pencil,
- Yarn,
- A clothespin pal/small plastic toy (any similar small weight will suffice).

Directions:



1. From the grocery bag, cut a piece of plastic at least 14 inches square.
2. Cut four pieces of yarn, each 24 inches long.
3. Use the pencil to poke a hole in each corner of the plastic. Knot a piece of yarn in each hole.



4. Hold the four yarn ends together and fasten them in an overhand knot as shown.
5. Tie the yarn around your weight (clothespin pal/small plastic toy/etc.)
6. To prepare your parachute for sky-diving, hold it by the center of the parachute so the strings and weight hang down.
7. Fold over the parachute and loosely wind the strings and pal around it to make a small bundle.



8. Toss up the parachute bundle as high as you can. It should float gently to the ground.

## MAGAZINE HOLDER

Materials: Laundry soap box or large cereal box, magazine pictures or colored paper, scissors, glue.

Instructions:

- Cut top off the box and opposite sides on an angle.
- Decorate with magazine picture or colored paper in collage style.



## GENIUS KITS

Place 13 or 14 items that might be recycled such as clothespins, pipe cleaners, ribbon, a nail, cork, lids, string, paperclip, etc. in a bag for each Cub Scout.

Then they have to use those items to invent something.

You can provide glue, tape or glue gun for them to stick it all together.

Have a contest to see who did the best job.

This could be done at a pack meeting or prepared before and brought with.

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## TRASH SCULPTURES

This activity is similar to doing Genius Kits except that you don't put any bounds on the materials they use, other than that they must come from the trash/recycling bins (and that the materials used be cleaned first!). Have the boys develop their Trash Sculptures at home and bring them to the Pack Meeting for judging. Be ready for some unbelievable results!

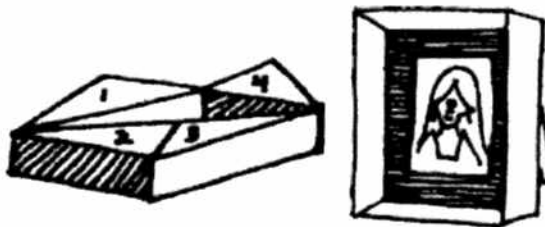
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## JELLO BOX FRAME

Materials: Jell-O Box, 1" x 3" piece of cardboard, two 1" x 2" pieces of cardboard, scissors, glue, contact paper.

### Instructions:

- Glue flaps back together.
- Cut from corner to corner on one side of box.
- Cut off the four sections to make a frame.
- Cover the box with contact paper.
- Glue 1" x 3" cardboard to back of Jell-O box.
- Glue the other two pieces of cardboard together and glue inside of Jell-O box.
- Glue photo to center of frame.



## NEWSPAPER RECYCLE BOX



This is an easy way to bundle up those piles of newspapers around the house and makes a good visual reminder to recycle. Get a cardboard box, one that will fit a flat laying newspaper and about 18" high. Decorate or paint the outside of the box. Then make a 1/2" hole in the middle on each of the four sides, about 2" from the top of the box. Cut two pieces of twine or cord about 5' long. Crisscross the pieces on the bottom of the box with the ends running through opposite holes. When the box is full, unthread the twine from the holes and tie up the bundle. No need to flip the bundle back and forth. Rethread with more twine and it's ready to go again.

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### LITTER TO GLITTER – THREE MOBILES

Materials: A variety of glittery discards that will reflect the sun such as aluminum pie tins, clean, used aluminum foil, used CDs, mylar (old mylar balloons or the inside of some snack bags. Clean with soap and water first.) gift wrap, garland, silvery buttons and baubles, miscellaneous shiny packaging like candy and gum wrappers, iridescent ribbon, old shiny ornaments, sequins, leftover glittery craft items, clear 2-liter soda bottles and a paper plate (not glittery.) You will also need glue, scissors and thin wire, string or cord.

#### SHINY SPIRAL

Directions:

1. Start by forming a long thin snake from the pieces of used foil.
2. Scrunch and twist them together until it is a long tube about the width of a finger.
3. Make sure that the separate pieces are connected in some way either by folding the foil together or using some glue.
4. Twist this shimmery snake around your hand to make a spiral shape.
5. Tie a piece of string around the top of the spiral.
6. Tie the other end of the string around a CD.
7. Leave some extra string at the top so you can hang it.
8. Add smaller shiny items using glue or wire.
9. Add more spirals and more CDs if you want.

#### CURLY BELL MOBILE

Directions:

1. Cut the bottom off a 2-liter clear soda bottle.
2. Cut long strips, about 1/2 inches wide about two-thirds of the way up the bottle.
3. Roll each strip up with your fingers or around a pencil and it will stay curled.
4. Take some string and attach a 1 inch circle of cardboard about halfway up.
5. Do this by poking a hole in the cardboard.
6. Thread a button below the cardboard so it will stay in place.
7. Attach shiny decorations to the half of the string below the button. Use CDs, ornaments, strips of mylar and anything else that shimmers.
8. Take your curly bell and thread the top of the string through the bottom of the bell. It will sit on the cardboard circle.
9. Add an iridescent bow or other shiny thing to the top of the bottle.

#### SHIMMERY SPINNING PLATES

Directions:

1. Draw a zigzag around the edge of a paper plate and cut it out.
  2. Attach an aluminum pie tin to the center of the plate.
  3. Cover both sides of the plate with lots of shiny things – candy wrappers, sparkly paper, sequins, buttons, foil, and whatever else you have.
  4. Attach string to top and bottom.
  5. Continue to add shiny items, and even another pie tin to the bottom of the string.
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## **ATHLETE ACTIVITY BADGE**

### **LUNG CAPACITY**

You will need: A large plastic bag (kitchen garbage bag); marker that will write on bag; a funnel; a pitcher or measuring cup marked in quarts.

1. Bunch together opening of the bag to make a mouthpiece. Make the opening large enough to blow into with your mouth open.
2. Squeeze the bag to get the air out.
3. Hold on to the bag away from your mouth and take two normal slow breaths. On the next breath, breathe in as much air as you can, then bring the plastic bag to your mouth.
4. Pinch your nose and breathe out hard into the bag in one breath. Keep your mouth open wide. Continue pushing the air out until you feel as though every last drop of air is squeezed from your lungs. It helps to bend forward as you breathe out. Close the bag tightly and hold while taking it away from your mouth.
5. Slide your hand down the neck of the bag until the bag is completely expanded. Mark the bag at the point where you're holding it.
6. Push the neck of the funnel into the mouth of the bag, still keeping a firm grip on the bag so it doesn't move. Don't worry about the air escaping--you don't need it.
7. Using the marked pitcher, pour water into the bag until it's fully expanded with water as it was with air. The bag might get heavy, so rest it in the sink or on a table.

This will give you an approximate idea of your lung capacity. The average 4'6" boy has a lung capacity of 2 quarts. The average 5' boy has a lung capacity of about 3 quarts. The larger your lung capacity, the greater your advantage in endurance sports like long-distance running or swimming.

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### **BROOMSTICK EXERCISE**

Use a broomstick to develop power in your wrists, fingers, and forearms. Simply hold the stick at the top – in either hand –and “walk the stick upward with your fingers until you reach the lower end. Strengthen upper arms, chest, and shoulders this way: Knot a rope at the middle of the broomstick and fasten the other end of the rope to a bucket of sand on the floor. Use both hands to rotate the stick so the rope winds up, raising the bucket. Use both hands to grab the ends of your broomstick, lean forward a bit and try to jump over the stick without letting loose. Broomsticks can break this way, so be careful. Hold the broomstick behind you, horizontally. Keep your palms up as you grip each end. Elbows must be kept close to your body. Take a deep breath, relax a minute, and then bring the broom handle over your head and down to your waist. It's simple, but you'll feel your back muscles ripple, just the same.

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### **INCHWORM**

Boys assume push-up position. Holding their hands in place, they walk their feet up as close to the hands as possible. Then, holding their feet in place, they “walk” their hands out to push-up position again. And so on.

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### AGILITY EXERCISES

Perform these exercises within the designated time limits. Rest two minutes between each set of exercises.

#### SET 1. (8 minutes)

1. Fish Flops: Lie flat on your stomach, arms and legs extended and off the ground. Rock back and forth. (2 minutes)
2. Grass Drill: Run in place. Drop to ground and bounce up again. (2 minutes)
3. Quick Foot-Knee Touch: Drop quickly to one knee and bounce up again. Alternate knees. (2 minutes)
4. Root Drill: You need a partner for this one. Square off on all fours, locking right shoulder to right shoulder. Try to rock your opponent back off his feet. (2 minutes)

REST TWO MINUTES

#### SET 2. (6 minutes)

1. Crab Mirror: Two players on all fours. One moves at random to the left, right, back or forward, and the other mirrors his moves. Switch leaders and repeat. (2 minutes)
2. Bear Hug Take-Down: Two players, one standing behind the other. Player in rear grasps other player around arms and chest and tries to pull him down. Reverse positions and repeat. (3 minutes)
3. Sit-Ups: Lie on back, feet together, hands clasped behind head. Raise up and touch elbows to knees. Do as many as possible. (1 minute)

REST TWO MINUTES.

#### SET 3: FLEXIBILITY EXERCISES

1. Fingers: Extend arms to the side, palms down. Quickly flex by alternating between fist and open hand position. (30 seconds)
  2. Palms: Extend arms to the front, palms down, wrists locked. Turn palms inward and outward in quick, short movements. (30 seconds)
  3. Wrists: Same position as palms above. Rotate wrists clockwise, then counterclockwise. (30 seconds)
  4. Forearm Twist: Arms extended sideways and parallel to ground. Flex at elbow bringing tips of fingers to shoulders. Return to starting position. Perform both palms up and palms down. (1 minute)
  5. Shoulder Stretches: 3-part exercise. (2 minutes)
    - (A) Rotate one arm over your head and down slowly. Repeat with other arm.
    - (B) Shrug your shoulders slowly in complete circle starting the movement by moving up and back.
    - (C) Lock your hands behind head and pull back slowly from shoulder.
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### TORTOISE AND HARE

Boys are in a circle, about three feet apart, and begin jogging slowly in place. When the leader calls "Hare," the tempo is stepped up, knees are lifted high, and the arms are pumped vigorously. When the leader calls, "Tortoise," the tempo slows to an easy jog. Make changes swiftly for more fun.

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### **TREES IN THE WIND**

Boys are in a circle facing counter-clockwise. They run slowly around the circle, bending left, right, forward, and back as though swaying in a breeze. On command, "Reverse," they turn and run in the opposite direction.

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### **GORILLA WALK**

Boys' feet are spread at about width of shoulders. They bend at the waist, grasp ankles with legs straight and walk forward, holding firmly to ankles.

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### **ROPE GYM GAMES**

A rope is a "gym" that can be carried and used for all kinds of physical fitness activities.

Tractor pull is a good workout. Loop rope around the back of the neck and under the armpits of two players facing in opposite directions. On all fours, they try to drag each other across a dividing line.

For rope climbing, tie a heavy rope (one inch thick or more) securely to a sturdy tree limb about 10 feet off the ground. At first, climb it any way possible, using calf and thigh pressure. Later learn to go up hand over hand from a sitting start. It builds arms, grip, shoulders and the entire upper torso. It's also a skill that's good to master for possible future emergency rescue or survival situations. Be sure to always supervise your Webelos Scouts and to have someone always right there, prepared to help catch a boy if he slips.

Rope jumping develops coordination between leg and body muscles. Wrists and arms also get training in rhythm and timing.

One of the toughest rope games is TUG-OF-WAR. Try one at your den meeting, with one half of the den against the other half, or one den against another den. Three man Tug-of-War takes a rope approximately 5 feet long and tie the ends together with a strong knot. Have three boys take hold of the rope forming a triangle. Place the scouts neckerchiefs or pieces of cloth on the ground just out of the reach of each player. On the word "go" each player tries to pick up his neckerchief while preventing the other players from reaching theirs. He has to do this without letting go of the rope.

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## ENGINEER ACTIVITY PIN

### SOME ENGINEERING FUNCTIONS

**Research:** A search for new scientific knowledge, with the objective of applying it to solving problems.

**Development:** Applied research which results in working model.

**Design:** Conversion of developed ideas into economical, reliable, and producible plans of manufacture, use or construction.

**Maintenance:** Plan and direct the methods of making the design and transforming it into a useful product.

**Sales:** Define and explain the application of the product and the sale of it.

**Management:** Administrate any or all of the engineers which perform the functions listed above and any other personnel required to perform the assigned task.

### FIELDS OF ENGINEERING

- **Aeronautical Engineering:** Deals with the whole field of design, manufacture, maintenance, testing, and the use of aircraft both for civilian and military purposes.
- **Astronautical Engineering:** Closely related to aeronautics, but is concerned with the flight of vehicles in space, beyond the earth's atmosphere, and includes the study and development of rocket engines, artificial satellites, and spacecraft for the exploration of outer space.
- **Chemical Engineering:** Concerned with the design, construction, and management of factories in which the essential processes consist of chemical reactions.
- **Civil Engineering:** Perhaps the broadest of the engineering fields; deals with the creation, improvement, and protection of the communal environment; providing facilities for living, industry, and transportation, including large buildings, roads, bridges, canals, railroad lines, airports, harbors, and other constructions.
- **Electrical Engineering/Computer Science:** Divided broadly into the engineering of electrical power distribution systems, electrical machinery, and communication, information, and control systems.
- **Geological & Mining Engineering:** Includes activities related to the discovery and exploration of mineral deposits and the financing, construction, development, operation, recovery, processing, purification, and marketing of crude minerals and mineral products.
- **Industrial or Management Engineering:** Pertains to the efficient use of machinery, labor, and raw materials in industrial production.
- **Mechanical Engineering:** Broadly speaking, covers the design and operation of all types of machinery and small structures.
- **Safety Engineering:** Concerned with the prevention of accidents.
- **Sanitary Engineering:** A branch of civil engineering that has acquired the importance of a specialized field due to its great importance for a healthy environment, especially in dense urban population areas.

**DEN ACTIVITIES**

- Arrange for boys to visit an engineer or surveyor in a municipal county office. Plan for the boys to look through the surveyor's manual and read a rod.
  - Visit a construction site and see the plans which are being followed.
  - Have someone explain how to read topographic maps.
  - Have a builder or carpenter show and explain a floor plan of a house.
  - Make a block and tackle. Be sure to explain its purpose.
  - Make catapults and demonstrate them at pack meeting, shooting candies or marshmallows into the audience for distance.
  - Discuss property lines. Have a surveyor show how property lines are determined and measured.
  - Have boys collect pictures of bridges and note the differences in construction.
  - Take a field trip to an operating draw bridge, ship loading operation or other large industrial operation involving large cranes or other lifting equipment.
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**WATER TURBINE**

Materials: Pencil, paper plate with ridges, water faucet and sink

1. With the pencil, poke a hole in the center of the paper plate.
2. Insert the pencil through the hole in the plate, wiggling the pencil back and forth so the hole is loose enough that the plate turns easily on the pencil.
3. Turn on the tap water to produce a steady stream of water. Hold the pencil so that one edge of the paper plate touches the water. The plate will spin. If you turn the faucet higher the plate will spin faster.

What did you do? You have just created a primitive waterwheel or water turbine.

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**BUILD A DOLL HOUSE FROM A KIT**

Obtain a simple doll house kit from a craft store. Have one Scout read the instructions and supervise the building (The Scouts' jobs might change as they find they are better at some skills than others), one assemble the tools and keep the materials straight, two build, etc. After the house is built, paint will need to be obtained (ask for donations), shingles attached, and of course the inside will need to be decorated.

The Scouts will work together and discuss each stage of the building. Try to stand by with assistance if needed and to record decisions made by the group.

They might wish to extend the activity by making furniture for the inside. Imagination is the only limit to the way the Scouts can make the furniture.

When the house is completed, what will you do with your house? Set it to a vote of the members of the den. (Citizenship Activity Badge). Possibilities are putting all of the boys' names in a hat for a drawing, or donating it to a sick child or a school (giving the den its year's service project).

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### THE BOTTLING FACTORY SKIT

Narrator: Our Webelos Den has been working on the Engineer activity badge, so we've made arrangements to take you on a tour of a soft drink bottling factory with us. Look for engineering activities which are used." (Divide audience into eight groups and have a Webelos teach each group the sound and action they are to make.)

1. Loading dock - "Swish, crash, swish, crash" while pivoting back and forth as if loading empty bottles onto a dock.
  2. Conveyor belt - "Lag a lag a lag" while holding arms straight out in front, fluttering hands up and down.
  3. Bottle washer - "Shh, shh, shh" while stooping down and turning, as if you were a brush being twisted into a bottle, then stand up and repeat.
  4. Lower conveyor belt - "Tinkle, tinkle, tinkle" while doing the same as the conveyor belt #2, but making hand movements smaller.
  5. Bottler - "Shh, ptt, shh, ptt" while turning around pounding one fist into the palm of the other hand.
  6. Large conveyor belt - "Lag a lag a lag" very loudly and exaggerating movement of hands (see conveyor #2).
  7. Shipping room - "Crash, boom, crash, boom" while stooping to pick up loaded crates of soft drink then loading them onto a truck.
  8. Tasting room - "Burp! Pardon me! Burp! Pardon me!" while covering mouth with hand.
- Start up your factory with #1 alone, then #2 alone, and so on, then have #1 start, #2 join in, #3 join in, etc. until the factory is running at full production.
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### GUMDROP TRUSS BRIDGE

This is a fun project that illustrates the strength and rigidity of a truss bridge. You will need a box of round toothpicks and a couple of bags of inexpensive gumdrops (or spice drops). Scouts can work as pairs or individuals on this project. Each scout should start by assembling a single triangular panel using 3 gumdrops and 3 toothpicks. (It is important to notice the strength of the triangular shape.) From there they can extend the side panel of the truss by adding more toothpicks and gumdrops.

Once the single truss is about 4 panels long, the scouts can begin the second side truss. The two sides are then connected together by adding toothpicks between matching gumdrop node points. This short bridge span, which is about 8 inches long, will be very stiff and strong. Spanning the bridge between two stacks of books, or the like can test the strength. A cup full of pennies can be used to load the truss. After testing the strength, the scouts can extend the bridge length by adding more pieces. A second level of truss may be added for really long spans (2 ft or more). The scouts will enjoy testing out various different bridge configurations.

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