

THE 4 ELEMENTS CHALLENGE BROWNIES



PROGRAM COMMITTEE

INTRODUCTION

We are going to learn about **FIRE, WATER, AIR** and **EARTH!** Read through the activities under each element. **Complete at least one item from under each element** that will be most interesting, challenging, and FUN for your Unit.

FIRE

1. **Sing a song about fire**, while participating in a Bridging campfire with other Units.
2. **Make a camp hat craft with a fire theme.**
3. **Incorporate fire in a ceremony.**
4. **Make an edible campfire.** Use your imagination! For example: pretzels, hickory sticks or chow mien for wood, fruit rollups for fire, small candies for coals, marshmallows for the rock ring, use a cookie for the base, etc.
5. **Create artwork using charcoal.** You could use some coals from your own campfire, after they have fully cooled. Artwork could be on paper, or on faces!

WATER

1. **Make snow angels.**
2. **Pretend that you are a raindrop and dramatize your journey through the water cycle.**
3. **Play a water game**, i.e. have a water fight, have a water relay (carry water from one bucket to another in a small cup or tablespoon for a relay), etc.
4. **Make up a rap, song or cheer about fresh water.**
5. **Make a squeaky duck.** See *Canadian Guider*, Spring 2002, pg 22.

EARTH

Activity instructions are provided at the end of this section.

- 1. Plant a garden or plant native plants in a disturbed area.** Consider doing this as a service project. Wildflower seeds can be purchased in most stores, but check that weeds and plants that are banned in your area are not included in the mix.
- 2. Make a crystal garden or rock candy.**
- 3. Go for a walk and discuss what contaminates the earth, e.g. litter, pollution, misuse of each.**
Scavenger Hunt Bingo: make a bingo card of the things that pollute the soil (empty food wrappers, bottles, gasoline spills, paint spills, cardboard boxes, cigarette butts, etc.) and have the girls check them off as they find examples on their walk.
- 4. Have a mud facial or use mud to decorate your face.**
- 5. Make a pet rock.** Rocks can be easily painted to look like animals like a ladybug or a turtle.

Crystal Garden with Charcoal

- Boil 250 ml of water. Add salt to the water until it won't dissolve anymore. Add 2T of vinegar.
- Smear some Vaseline around the top edge of a pie plate.
- Scatter small pieces of briquettes in the pie plate (the charcoal should have parts sticking up so that they will be above the solution).
- Pour the salt / vinegar / water mixture into the pie plate.
- Put drops of food colouring on some of the pieces of charcoal.
- Let sit for 2-3 weeks to see it grow! DO NOT EAT!

Rock Candy with Sugar:

- Boil 250 ml of water. Add sugar until it won't dissolve anymore, about 2:1 ratio.
- Tie a string to a pencil. Attach a button to the end of the string. Lay the pencil across the top of a container, with the string and button hanging into the container.
- Pour the sugar / salt solution into the container (about half full). Cover the top of the container to keep out dust (e.g. paper plate).
- Let the rock candy sit undisturbed to watch the crystals grow. These can be eaten.

AIR

Detailed activity instructions and the Beaufort Scale are provided at the end of this section.

1. Dramatize a Wind Dance.

- Using the Beaufort Scale as a guide, act out the intensity of wind, steadily getting faster, throw in a hurricane at the peak, then reduce the intensity of the wind until it is a light breeze again, then calm air.

2. Fly a kite. Play battling kites or tag with the kites. Maybe try making your own kites.

3. Play a balloon game.

- Each girl blows up a balloon, but doesn't knot it. She should aim it at a chosen spot, such as a rock or a tree, and let go of the balloon, trying to have the balloon hit the spot as it is deflating. Continue until successful.

4. Play parachute games.

5. Cloud Observations. Gaze at the clouds for a while, what did you see?

Parachute Games

- All games start with the girls in a circle, with the parachute held by all participants.
- Switch places - lift up the parachute, yell out a month, all those with a birthday in that month runs under the parachute and finds a new spot
- Moonwalk - the parachute is on the ground, everyone shakes the edge of it to make a moon surface, take turns walking gently across it.
- Cat and Mouse – similar to moonwalk, but mice crawl under the parachute and the cat walks on top, trying to catch the mice.
- Sharks - sit with your feet extended under the parachute, holding the parachute up close to your chest, just under your chin. The shark crawls under the parachute and pulls in her victims by their feet until there are no more victims to eat!

Beaufort Scale

| Beaufort Number | Description | Wind | | Speed | Observations |
|-----------------|-----------------|-------|---------|-------|---|
| | | mph | kph | Knots | |
| 0 | Calm | 0 | 0 | 0 | Tree leaves don't move; smoke rises vertically. |
| 1 | Light Air | 1-3 | 1-5 | 1-3 | Tree leaves don't move; smoke drifts slowly; Direction of wind shown by smoke, not by vane; |
| 2 | Slight Breeze | 4-7 | 6-11 | 4-6 | Tree leaves rustle; flags wave slightly; Vanes show wind direction |
| 3 | Gentle Breeze | 8-11 | 12-19 | 7-10 | Leaves and twigs in constant motion; small flags extended; |
| 4 | Moderate Breeze | 13-18 | 20-29 | 11-16 | Small branches move; flags flap. |
| 5 | Fresh Breeze | 19-24 | 30-38 | 17-27 | Small trees sway; flags flap and ripple; |
| 6 | Strong Breeze | 25-31 | 39-50 | 22-27 | Large branches sway; umbrellas used with difficulty; flags beat and pop;. |
| 7 | Moderate Gale | 32-38 | 51-61 | 28-33 | Sea heaps up, white foam streaks; whole trees sway; difficult to walk; |
| 8 | Fresh Gale | 39-46 | 75-86 | 34-40 | Twigs break off trees; |
| 9 | Strong Gale | 47-54 | 75-86 | 41-47 | Branches break off trees; tiles blown from roofs; |
| 10 | Whole Gale | 55-63 | 87-101 | 48-55 | Some trees blown down; damage to buildings |
| 11 | Storm | 64-74 | 102-120 | 56-63 | Widespread damage to trees and buildings; mountainous waves. |
| 12 | Hurricane | 75+ | 120+ | 64+ | Severe and extensive damage. |

Challenge Created By:
 Alberta Program Committee 2003
 Edited 2005