

Pathfinder Instant Meeting Booklet

#1



BC Program Committee

August 2009

TABLE OF CONTENTS

Bring a Friend Night3
CSI Challenge6
Taking it Outdoors Meets Active Living.....9
Eco Pak: Water Theme 13
The Fibonacci Code 15
Vending Machine Puzzle (For the Fibonacci Code Instant Meeting)..... 17

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BRING A FRIEND NIGHT

Refer to the Girl Guides of Canada website for great resources!

https://memberzone.girlguides.ca/C5/Marketing-and-PR/Bring_A_Friend/bring_a_friend.aspx

You can have a "Bring a Friend" Night at Pathfinders any time of the year. Don't forget that girls can join ANYTIME! The above link from National is a great tool kit with a planning guide.

PROGRAM CONNECTION: Event Planner.

LENGTH OF ACTIVITY: Two hours.

MATERIALS REQUIRED:

- brown paper bags for loot bags
- Grow Guiding PR material...balloons, book marks, tattoos (temporary and Guiding themed!), registration forms
- letter to guests' parents with information regarding your unit
- name tags...fun foam, card stock, pins, coloured pens
- items for activities (depends on choices selected below)
- table covers, napkins, plates, glasses and refreshments (if required)

AT THE MEETING PRIOR TO BRING A FRIEND NIGHT:

- Have the girls create invitations to give to their friends.
- Discuss the plans for the evening and have the girls select a theme. This could be fun, e.g., flower power; active, e.g., fitness fun or educational, e.g., recycling badge or science night.
- Have the girls create a wish list of activities. The more the better!
- Discuss refreshments.

AT THE BRING A FRIEND NIGHT:

OPENING/WELCOME: Use your usual meeting opening.

ICE BREAKER GAMES: Choose two or three of these activities.

Name Game: Each girl introduces herself and states an item she would take camping (or to a picnic) which has the same first initial as her name. Irene might bring ice cream; Susie might bring her bathing suit.

Tiger: The girls walk with eyes closed and a blanket is placed over one (or two) girls. Who has been caught by the Tiger? The girl who identifies the missing girl is the next tiger.

Beanie Toss: Have several Beanie babies (or bean bags). Each girl tosses in turn to a random girl and states her name as she throws. Add one or two more beanies and the fun ensues! Try to keep the girls in the same order for an extra challenge.

Human Knots: Girls stand in a tight circle and grab hands randomly. Now try to undo the knot without letting go of hands

Who am I? Use the game cards in Eco Pak (one in each District) for this game. Girls have an animal/thing from nature pinned on their backs. They need to wander about asking questions in “20 Questions” style. They must not ask the same girl twice in a row. As soon as they figure out who they are, they report to the leader and can mingle answering questions still.

ACTIVITY STATIONS: Create three stations (15-20 minutes each). Several ideas are listed here.

Friendship Bracelets: Girls create bracelets for their friends. Choose styles based on age, abilities and preferences. Materials required:

- beads
- memory wire
- stretchy cording
- embroidery floss
- pins
- samples

“Grass Heads” or “Chia Pets”: Materials required:

- knee high stockings
- grass seed
- acrylic paints and fun foam to decorate
- potting soil
- paper cup

Put a handful of seed into the toe of the stocking. Add a cupful of dirt into the stocking and shape into a ball or face. Tie a tight knot and place into the cup. Add fun foam feet and paint the face. Place the head in a sunny spot and water it. Wait for the hair to start to grow!

Fly Swatter Hockey: Materials required:

- two chairs or shoes (or tape) to mark goals
- fly swatters
- tight ball of paper

Small numbers works best (two to four girls per team). Girls try to get goals by swatting the ball into either goal.

Inukshuk building: Cover cookie boxes with plain packing paper. You need eight to 10. Have the girls build Inukshuks of various shapes. You can also write out the Guide Laws or phrases from the Guide Promise and build the Inukshuk with the Promise or phrases in order. As an extra activity, give an example of each law used in the Inukshuk.

Who am I? As described in Ice Breakers, if not played at the opening.

Vehicle Rally: Materials required for each girl:

- four Lifesavers
- three straws
- two paperclips
- a sheet of 8½ by 11 paper
- a good length of masking tape

Girls design vehicles and race them. The catch is that the vehicles can only be moved by blowing on them. Which goes the furthest? Fastest?

LARGE GROUP ACTIVE GAMES: These games take five to seven minutes each. Choose two or three.

Argentinean Scarf Game: A scarf is placed in the middle of the circle. Girls are divided into three or four teams of four to six girls each. Lines fall out from the circle. At the start (whistle) the first girl on each team runs to the back and crawls through the legs of her team to grab the scarf. They get a point or a letter of a word such as “Guides”, “Brownies” or “Thinking Day”. The first team to spell the word wins.

Food Chain: Rock Paper Scissors (Mosquitoes to Mushrooms). This game is taken from the Eco Pak CD. Write out a food chain and have actions to go with each organism. Organisms bob around and play rock paper scissors to move along the food chain. The loser moves down a food chain step and the winner moves up. Play for five to 10 minutes and see who can make it to the top. Girls ideally only play with those at their same level.

Rubber Chicken Relays: Any game is more fun when played with a couple of rubber chickens (available at your pet store or dollar store). Try relays with the chickens between the knees, under the chin, between two girls’ elbows...unlimited options.

Balloon Tag: Each girl blows up a balloon and ties it with long piece of yarn to her ankle. When the game starts, girls try to pop each other's balloon while protecting her own. Mayhem follows...leaders play too!

Balloon Volleyball: Girls can play sitting down and scootch on their bottoms if your space is small, or girls can sit foot to foot and score points by making the balloon land behind the line.

SNACKS AND CLOSING: Use your usual meeting closing.



CSI CHALLENGE

GOAL: To earn the CSI Challenge crest.

PROGRAM CONNECTIONS:

- My Music, My Movies and More: The Arts from A to Z #7
- Exploring a Theme: Puzzle Me #1 or 2
- Secret Agent 007 #1, 3, 4
- Everything Comes From STEM #6

MATERIALS REQUIRED:

- spot the difference puzzles (one copy per person)
- activity supplies as noted below

ARRIVAL: “Spot the Difference” puzzle appropriate to your age and interests. There are some Guiding-related ones with the CSI Challenge on the BC Girl Guides website.

OPENING: Use your usual opening, then explain that in this meeting you will be learning how police, detectives and scientists use scientific knowledge to solve crimes.

GAME: How Good a Witness Are You? Version 1. Find a partner. While your partner turns her back, make three changes in your appearance. For example, you might tuck in your shirt, put your hair behind your ear and remove your belt. When you have finished, tell your partner to turn around and try to identify the changes. Then switch roles.

FORENSIC SCIENCE ACTIVITY #1: Looking at Your Own Fingerprints. Materials required:

- white paper
- graphite pencil
- transparent tape—not the “magic” invisible kind
- magnifying glass

Heavily shade an area of the paper with the pencil and rub your finger onto the shaded area. Press a piece of transparent tape onto your dirty finger, then stick it to a clean part of the paper. Be careful not to smudge it! Use the magnifying glass to examine your fingerprint. What features (loops, whorls or arches) do you see? Refer to the CSI Challenge Booklet on the BC Girl Guides website for basic information on fingerprint features.

FORENSIC SCIENCE ACTIVITY #2: Lifting Fingerprints as Evidence. Materials required:

- clean drinking glass. One with a stem is easier to handle without smudging the fingerprints on it.
- cocoa—sifted works best
- small spoon
- transparent tape—not the “magic” invisible kind
- white paper
- magnifying glass
- sample fingerprints from two or more people who have volunteered to be suspects

Advance Preparation:

1. Ahead of time, have one of your suspects press her fingers onto the glass, being careful not to smudge the fingerprints she leaves. You get clearer fingerprints with slightly oily or sticky fingers, so have your suspect run her fingertips over her forehead before touching the glass.
2. Take fingerprints from each of your suspects. (Alternatively, bring the suspects into your meeting and have the girls take their fingerprints.)

At the Meeting:

1. Take fingerprints from each of the suspects. (If you are short of time, take the suspects' fingerprints in advance.)
2. Carefully handle the glass by the rim, the base or the stem so that you do not smudge the fingerprints left by the suspect. Hold the glass up to the light to find out where the fingerprints are.
3. Using the small spoon, sprinkle a little cocoa over one of the fingerprints, making sure the print is completely covered. Gently blow off the excess cocoa.
4. Press one end of a piece of transparent tape to the glass to one side of the fingerprint, then stretch the tape across the fingerprint and down onto it. Be careful not to drag the tape across the fingerprint or to press it down onto the fingerprint with your fingers.
5. Lift the tape off the glass and stick it to a sheet of white paper.
6. Use the magnifying glass to examine the fingerprint. What features (loops, whorls or arches) do you see?
7. Compare the fingerprints from the glass to the sample prints provided by the suspects. Which suspect is the most likely culprit, based on the fingerprint evidence?

FORENSIC SCIENCE ACTIVITY #3: How Alike Is Our DNA? All human beings have very similar DNA. Try this simple activity to find out how much of your DNA is the same as everyone else's and how much is different. Materials required:

- cooked macaroni noodles (or gumdrops, cooked peas or similar items)
- sharp knife—be careful using it!

Count out 100 macaroni noodles and put them in a pile. This pile of macaroni represents all of your DNA. Pull one noodle out of the pile and cut it into ten pieces. Make the pieces as equal as you can. Put one of the little pieces to the side by itself and put the other nine pieces back onto the pile of macaroni.

The pile of macaroni represents the amount of your DNA that is the same as every other human being's DNA. It's the genetic material that makes you very similar to everybody else. For example, you and your neighbour both have arms and legs, skin, hair and eyes. The one little piece of macaroni that you set aside—one-tenth of one percent of the macaroni—represents the DNA that makes you different from everybody else: maybe your arms and legs are shorter than your neighbour's; perhaps you have brown hair and eyes and she's a blue-eyed blonde.

CRAFT: Fingerprint Art. Materials required:

- non-toxic ink pad (washable ink makes for easier clean up, but permanent ink is better if you are planning to colour over the fingerprints with marker)
- paper, card stock, envelopes and/or craft foam, depending on what you are making
- markers, crayons or pencil crayons

Press your thumb or finger onto an ink pad then onto your card stock. Use a fine marker, crayons or pencil crayons to add details.

FIELD TRIP: (May be planned as a separate meeting.) Visit a police station, police museum, court house or science laboratory to learn about forensic science and law enforcement.

CLOSING: Read a short story in which forensic science is used to solve a real-life mystery or crime. End with your usual meeting closing. Don't forget to order your CSI Challenge crests.



TAKING IT OUTDOORS MEETS ACTIVE LIVING

The following meeting is designed as an outdoor meeting for Guides and Brownies. Adjust the activities to the appropriate age level. Pathfinders can use this meeting too...use this as a bridging meeting where Pathfinders lead the activities and partner with younger girls.

PROGRAM CONNECTIONS:

- Up Close and Personal with Nature, #1 and 2
- Bridging the Gap #5
- Active Living Challenge Fitness Fun
- Eco Pak Challenge: Fun and Games and Taking it Outside

MATERIALS REQUIRED:

- skipping ropes
- ball
- activity equipment as given below

OPENING: Gather outside for your usual opening and announcements.

ACTIVE GAMES: Choose three or four short activities for five to 10 minutes each.

Skipping Challenge: Have girls partner up and count each other's skips and set a unit record. Keep track for future meetings to see who can break the record. Choose an unlikely girl to demonstrate and start off the record; that gives her a chance to be "record holder" even if it is for a short time.

Skipping Demonstrations and Routines: To make this non-competitive you can have the girls practice to put on a demonstration of fancy skips, jumps and tricks. Many girls know these moves from "Jump Rope for Heart" demonstrations at their schools.

Streets and Alleys: (Description borrowed with permission from www.guidinguk.com.) One girl is chosen to be the cat and another is the mouse. A leader or responsible girl is the caller. The remainder of the girls line up in a perfect grid, ideally 4 X 4 or similar. The girls stand with arms outstretched facing north for streets and west for alleys. The idea is that the cat and mouse run down "streets" and then when the caller changes to alleys, the orientation of the game switches. The caller changes streets and alleys at random to help the mouse initially, then to help the cat so that the game switches up. When the cat catches the mouse, the girls play again with a new cat and mouse.

Catch it Game: One girl stands in the middle of the circle and, while throwing the ball up high, calls out a category that might fit some of the girls. Examples are: everyone with a brother, everyone wearing running shoes, everyone who has a pony tail, everyone who rode their bike to Guides and so on. Any girl that fits that category runs into the circle to catch the ball. The girl that catches the ball is the next girl in the center.

Salmon Survival: All the girls line up across one side of the playing area; they are the "salmon". A girl stands in the centre of the hall; she is the fisher. The Guider shouts "fast current" and all the "salmon" try to get across to the other side of the area, without getting caught by the girl in the middle (the fisher). If someone is caught they stay where

they were tagged, becoming “fishing nets”. On the next call of “fast current” the same girl remains as the fisher and the “salmon” try to run to the other side of the area again. Any girls that have become “nets” remain where they were standing but can stretch to catch anyone that runs close enough for them to reach. Eventually there will be only a few or no “salmon” left.

NATURE ACTIVITIES AND/OR CRAFT: Choose two or three activities.

Leaf Prints: Materials required:

- leaves
- ink or crayons
- paper

Make leaf prints by inking from an ink pad and then roll onto the paper. Leaf rubbings can be made by placing the leaves under the paper and rubbing crayons over top. Glue paper onto a larger piece of card stock to frame the picture.

Magnifying Glass Hunt: Use string to square off a piece of ground and then see what you find in your small patch. Discuss the findings as a group. Who found the smallest thing? The most interesting thing? Anything that moved? Anything that doesn't belong in nature? Use your Eco Pak tools!

Sound Kim's Game: Girls sit quietly for two or three minutes (this is actually possible!) with their eyes closed. Girls try to identify as many sounds as possible. Can they find nature sounds in addition to the city noise? Draw sound maps, described in the Eco Pak Booklet.

Pine Cone Bird Feeders: Materials required:

- open pine cones
- string or wire
- peanut butter
- bird seed

Tie wire or string onto pine cone. Slather with peanut butter and roll in bird seed. Hang from a tree to feed the birds. Peanuts are a favourite food of our provincial bird, the Steller's jay. Remember that you need to keep feeding the birds until the berries are out in late spring!

Sock Walk: Have large white sport or wool socks for the girls to put over their shoes. Have them walk a bit and see what they pick up on the bottom of their socks. This works best in a field or forest. Look at what interesting things were picked up. Hopefully you might have found some seeds. Talk about how animals transport seeds from one place to another.

COMPLEX GAMES: Choose two or three activities depending on time and weather outdoors.

Trash Relay from Eco Pak Booklet: Materials required:

- trash (an assortment of trash including waste, compostable items and recyclable items)
- rubber gloves
- large buckets or containers

Divide the girls into teams to race in a relay. Divide the trash into piles (same number of piles as teams of girls). Put a pair of rubber gloves in front of each team at the start line.

Place the piles of trash half way between your start and end lines. At the end line, place three buckets/containers labelled “Garbage”, “Recycle”, and “Compost”.

The object of the game is to put on the rubber gloves, run (walk, skip, crab-walk... whatever the girls decide) to the trash, select an item, run to the end and put it in the proper category, run back to the start and hand off the gloves to the next girl in line. The relay can be run until every girl has gone once/twice/etc or when all the trash has been sorted.

Eco-message: Once the trash is sorted talk with the girls about what they found in the garbage and how much of it was in the wrong place. Talk about the ways in which we can reduce our garbage, but when we do make it, how we can make sure it gets put in the right place.

Bedlam: (Borrowed with permission from www.guidinguk.com.) This game requires four teams of equal size. Each team takes one corner of the room or playing field. The play area can be either square or rectangular. At a signal (whistle, etc.), each team attempts to move as quickly as possible to the corner directly across from them (diagonally), performing an announced activity as they go. The first team to get all its members into its new corner wins that particular round.

The first round can be simply running to the opposite corner, but after that you can use any number of possibilities, such as walking backward, wheelbarrow racing (one person is the wheelbarrow), piggyback, rolling somersaults, hopping on one foot, skipping, and crab-walking. There will be mass bedlam (craziness!) in the center as all four teams crisscross.

Water Cycle Relay: (Borrowed with permission from www.guidinguk.com.) Materials required:

- bucket of water
- veggie zipper-lock bag (the large ones with holes in them) for each team

Divide the girls in teams of five in a line quite widely spaced. The girls within the line are also spread far apart. On “go” the first girl fills the zipper-lock bag (she is the Cloud) and twirls while advancing to the next girl. She passes on the bag.

The second girl is the Mountain and she runs to the next girl and passes on the bag.

The third girl is the Rain and she hops on one foot to the next girl.

This fourth girl is the Stream/River and she winds her way, zigzagging, to the next girl and passes on the bag.

The fifth girl is the Ocean and she takes the bag and waves all the way back down to the bucket (at the beginning of the line). She fills up the bag and is now the Cloud. The previous first girl is now the Mountain and so on. The girls have to listen to the directions as they will have to remember what they are (or have become) and the action for it. They will get lots of encouragement and cheering from their team! The relay continues until the first girl (the original Cloud) is the Ocean and waves her way down to the bucket.

You all get a bit wet...the Oceans have a great time! (Actually EVERYBODY does!) It's an amusing way to teach about the water cycle. Have Fun–Get Wet!

Don't Throw Your Garbage in your Neighbour's Yard (borrowed with permission from www.guidinguk.com.) Source: The 4th Girl Guides of Wandering Hills District, Calgary Area. Materials required:

- hula hoops (or rope set out in circles on the ground) for each team
- bean bags, 6 per hoop

Put a hula hoop or loop of skipping rope in each corner of your play area. Put equal numbers of bean bags in each hula hoop. Divide the kids into teams of five or six; each team stands by their hula hoop. This is their yard! Yell Go! Each group has to empty their hula hoop by carrying the bean bags, one per trip, to another team's yard. Tossing is acceptable if the bean bag lands in the hoop; if not they have to retrieve it and put it in. Watch out for the other team members so that you do not bump into each other. Count the number of bean bags in each hoop at the end of the game (10 minutes) and the team with the fewest bean bags (the least garbage) wins.

Talk to your girls about the environment and what happens to garbage if it isn't disposed of correctly—simply throwing the garbage at your neighbour doesn't help clean up the Earth.

CLEAN UP AND CLOSING: Use your usual meeting closing.



ECO PAK: WATER THEME

PROGRAM CONNECTIONS:

- Up Close and Personal with Nature, #1 and 2
- Eco Pak Challenge: Fun and Games and Taking it Outside

GATHERING AND OPENING: Crossword puzzle or word search activities from the Eco Pak.

ACTIVITIES FROM THE ECO PAK CD: You can get the Eco Pak from your District Program Adviser or District Commissioner.

- Weird Web (page 17 of Eco Pak)
- Who Am I (page 18 of Eco Pak)
- Habitat/ Shrinking Island (page 7 of Eco Pak)
- Waterfowl and Oil Don't Mix (page 36 of Eco Pak) demonstration

YELLOW FISH ROAD PROJECT: Learn more about Trout Unlimited Canada's Yellow Fish Road project at www.guidesontario.org/forms/Yellow%20Fish%20Road..pdf. This project involves learning about protecting storm drains and how what goes in them affects local bodies of water. Units use stencils to paint yellow fish near storm drains and distribute door hangers to explain that the yellow fish are there to remind people that anything that flows down the storm drain ends up polluting local water bodies. This is an educational and fun project that units of all ages can enjoy.

You can also contact the federal Department of Fisheries and Oceans and invite a biologist to come to your meeting, or ask to borrow the complete 'Yellow Fish Road' Cart and a video explaining the project to the Guides. Select a neighbourhood, obtain permission from the local community and then paint the storm drains the following week.

ACTIVE GAMES: Choose two or three of these, depending on the time available.

Salmon Survival: All the girls line up across one side of the playing area; they are the "salmon". A girl stands in the centre of the hall-she is the fisher. The guider shouts "fast current" and all the "salmon" try to get across to the other side of the area, without getting caught by the girl in the middle (the fisher). If someone is caught they stay where they were tagged, becoming "fishing nets". On the next call of "fast current" the same girl remains as the fisher and the "salmon" try to run to the other side of the area again. Any girls that have become "nets" remain where they were standing but can stretch to catch anyone that runs close enough for them to reach. Eventually there will be only a few or no "salmon" left.

Hooks and Ladders: (page 13 of Eco Pak) An active game that simulates how salmon migrate upriver to spawn.

Water Cycle Relay: (Borrowed with permission from www.guidinguk.com.) Materials required:

- bucket of water
- veggie zipper-lock bag (the large ones with holes in them) for each team

Divide the girls in teams of five in a line quite widely spaced. The girls within the line are also spread far apart. On “go” the first girl fills the zipper-lock bag (she is the Cloud) and twirls while advancing to the next girl. She passes on the bag.

The second girl is the Mountain and she runs to the next girl and passes on the bag.

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The fifth girl is the Ocean and she takes the bag and waves all the way back down to the bucket (at the beginning of the line). She fills up the bag and is now the Cloud. The previous first girl is now the Mountain and so on. The girls have to listen to the directions as they will have to remember what they are (or have become) and the action for it. They will get lots of encouragement and cheering from their team! The relay continues until the first girl (the original Cloud) is the Ocean and waves her way down to the bucket.

You all get a bit wet...the Oceans have a great time! (Actually EVERYBODY does!) It's an amusing way to teach about the water cycle. Have Fun–Get Wet!

CAMPFIRE AND CLOSING: Sing nature songs or songs loosely related to nature. Examples of songs found in *Songs for Canadian Girl Guides* include “Land of the Silver Birch”, “Canoe Song”, and “Tall Trees”. *Jubilee Song Book* ideas include the “Happy Wanderer”, “Something to Sing About”, “Skye Boat Song” and “Cuckoo”.



THE FIBONACCI CODE

PROGRAM CONNECTIONS:

- Let's Take It Outside: Up Close and Personal with Nature #6
- Exploring a Theme: Secret Agent 007 #4
- Puzzle Me #1 or 4
- Everything Comes From STEM #3

MATERIALS REQUIRED:

- Vending Machine Puzzle on page 17 (one copy per girl or group of girls)
- large number of small stackable objects (checkers, flat buttons, marshmallows, life savers, pennies, etc. If you use pennies, you could donate them to the CWFF after this meeting.). You'll need 40-60 per girl or small group of girls.
- one or more of the following for the "Nature Walk" activities:
 - outdoor area with a variety of flowers (or bring cut flowers or pictures of flowers to your meeting)
 - pine cones
 - sunflower seed head
 - pineapple
 - apple and a sharp knife
- paper and pens or pencils
- treasure hunt prizes

ARRIVAL: Vending Machine puzzle.

OPENING: Use your usual opening. In this meeting you will discover a secret mathematical code, find out where it occurs in nature and use it to puzzle your friends.

GAME: The Button-Stacking Game. Play this game individually or in small groups. Each group needs 40-60 small objects that can be easily stacked and counted. Make as many stacks as you can, where each stack contains a specific number of objects as described below. What is the tallest stack you can make, before the stacks fall over?

Start with a stack of 0 and a stack of 1. After that, each stack contains the number of objects in the previous two stacks added up:

- The third stack will contain 1 object ($0+1=1$)
- The fourth stack will contain 2 object ($1+1=2$)
- The fifth stack will contain 3 objects ($1+2=3$)

On a sheet of paper, whiteboard or blackboard, write down the number of objects in each stack, starting with 0, 1, 1, and continuing as far as you can.

This sequence of numbers is called the Fibonacci (fib-oh-NATCH-ee) sequence, named for the mathematician who used it to describe certain patterns in nature (specifically, the growth of a population of rabbits). The first few numbers in the sequence (as you discovered in the stacking game) are:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377 ...

NATURE WALK: Now see if you can find Fibonacci numbers in nature!

1. Find 10-12 different kinds of flowers. Write down the name of each flower (or a description, if you don't know the name) and the number of petals it has. If it has many rows or layers of petals, write down the number of petals in each layer. Circle the Fibonacci numbers. Do these numbers show up more often than you expect?
2. Look at the stem end of a pine cone. Notice how the scales spiral out from the centre of the cone. Count the clockwise spirals and the counter-clockwise spirals. (Go to www.mcs.surrey.ac.uk/Personal/R.Knott/Fibonacci/fibnat.html#pinecones for examples.) Usually, you'll find two consecutive Fibonacci numbers. Can you find any pine cones that don't follow this pattern?
3. Repeat activity #2 with the seed head of a sunflower or with a whole pineapple.
4. Cut an apple in half cross-wise through the core. What do you see?

GAME: Divide into groups and design a treasure hunt using the Fibonacci sequence. The sequence might be the key to a secret code, or perhaps you could lay out a treasure map using Fibonacci numbers of paces between landmarks. Challenge the other groups to find a prize using your code or map.

POLL: Fibonacci numbers certainly seem to appear in nature more often than you might expect at first. Is there a reason for this? Poll the girls to see what they think:

- a) Fibonacci numbers are actually the key to a secret message that was developed by super-intelligent aliens and placed in Earth's natural world for us to find. If we could decode the message, we'd learn the secret of eternal youth.
- b) The spirals on pine cones, pineapples and sunflowers, and the number of petals on plants, are determined by the shape and structure of plants and how they grow. The Fibonacci sequence is a mathematical model that helps describe the way things grow in nature, so that's why Fibonacci numbers show up so much.
- c) There is no reason for it; the whole thing is just one big, freaky coincidence.

CLOSING: Take another look at the Vending Machine Puzzle. Do your answers look familiar? End with your usual meeting closing.



VENDING MACHINE PUZZLE (FOR THE FIBONACCI CODE INSTANT MEETING)

You have a bunch of loonies and toonies, and you want to buy a snack from a vending machine. How many different ways can you put your loonies and toonies into the machine to pay for each item? You put your coins into the vending machine one at a time, and you can add them in any order. Some have been done as examples. Can you fill in the missing ones?

Snack	Price	Possible Ways to Put In Loonies and Toonies to Buy Snack	Number of Ways
Chocolate Bar	\$1	Loonie	1
Pop	\$2	Loonie + Loonie Toonie	2
Chips	\$3	Loonie + Loonie + Loonie Loonie + Toonie Toonie + Loonie	3
Cup-o-Soup	\$4		
Bag of cookies	\$5	Loonie + Loonie + Loonie + Loonie + Loonie Loonie + Loonie + Loonie + Toonie Loonie + Loonie + Toonie + Loonie Loonie + Toonie + Loonie + Loonie Loonie + Toonie + Toonie Toonie + Loonie + Loonie + Loonie Toonie + Loonie + Toonie Toonie + Toonie + Loonie	8
Gourmet Ice Cream Bar	\$6		
Microwave Pizza	\$7		