

Science Camp



By: Comet

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Astronomy (Study of Celestial Objects and Space)

- Using a night sky chart/reference book observe the constellations using binoculars or the naked eye.
- Locate the following:
 1. Polaris (the North Star)
 2. Ursa Minor (the Little Dipper)
 3. The Big Dipper
 4. Mizar + Alcor (Double Stars)
 5. Orion
 6. Cassiopeia
 7. Cepheus
 8. Milky Way Galaxy
 9. A satellite
- What is a star? A comet? A meteor? A galaxy? A black hole? A UFO?
- What is the Milky Way?

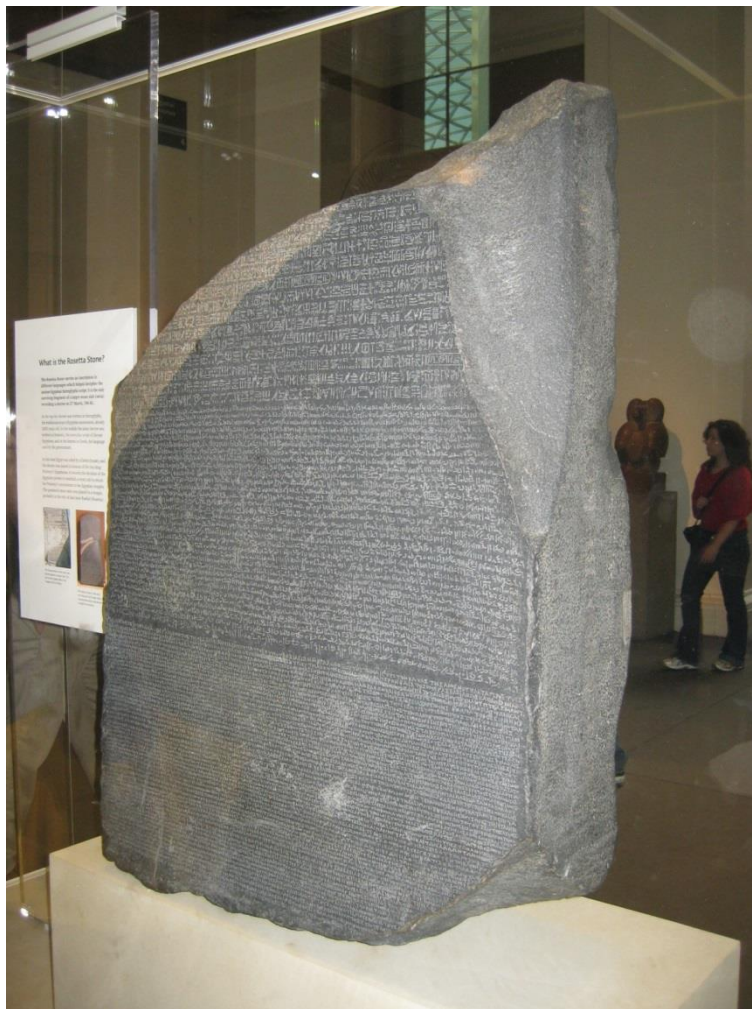
Botany (Study of Plants)

- Using a field guide, identify 20 different wildflowers, grasses, ground covers and trees. List below. Compare with the lists of the other teams. You may photograph these for easier identification.
- Categorize in any way that seems logical; present your findings.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Cryptography (Study of Codes & Ciphers)

The need to conceal the meaning of important messages has existed for thousands of years. Over time, people have found increasingly complex ways of encoding their messages as the simpler ways are decoded with greater ease. Codes and ciphers are not synonymous. A code is where each word in a message is replaced with a code word or symbol, whereas a cipher is where each letter in a message is replaced with a cipher letter or symbol. Ancient scripts and languages have been understood using decoding and deciphering techniques, most famously the Rosetta Stone of Ancient Egypt (below).

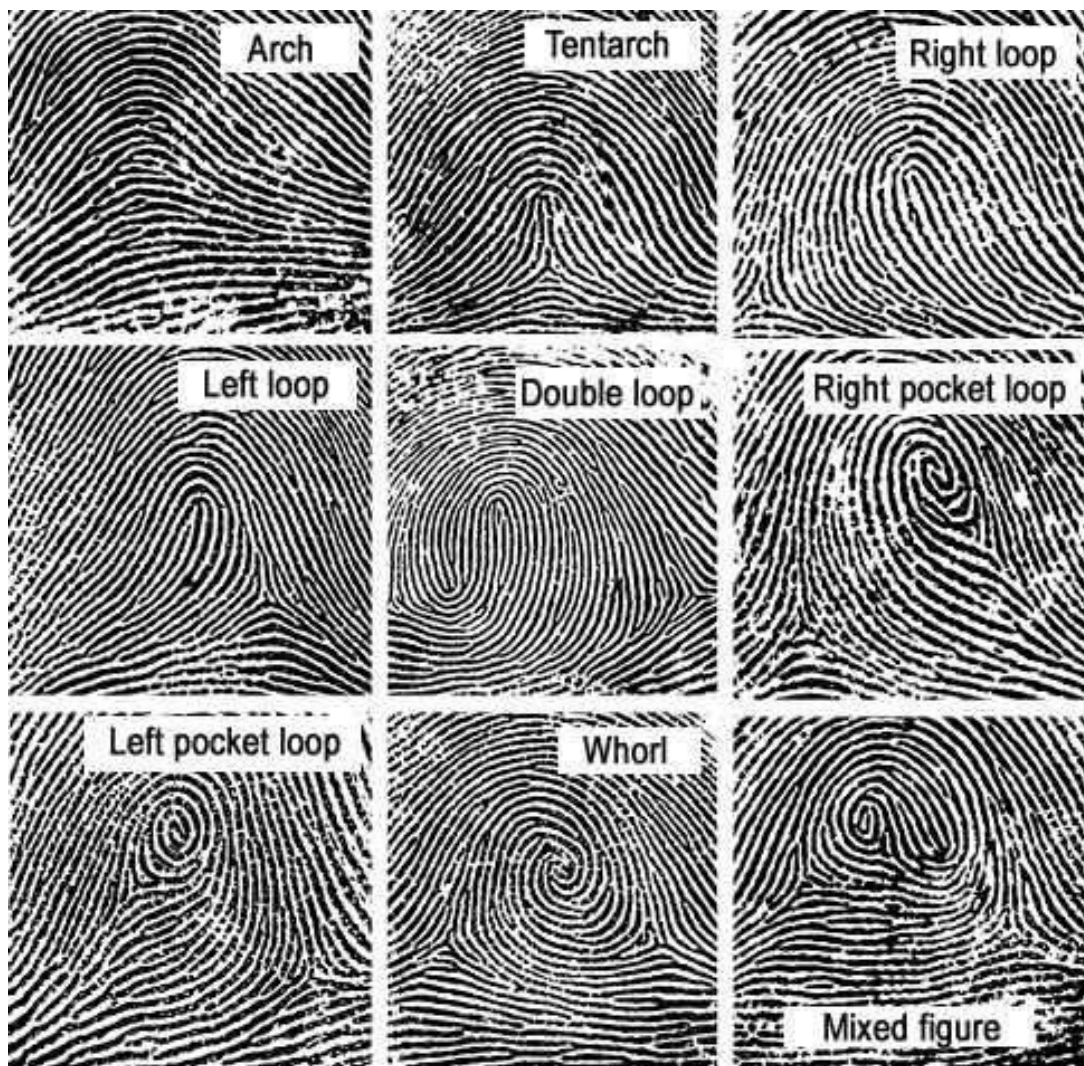


Using the code and cipher examples in this workbook, create a message for the Guiders to solve and for each of the other teams to solve! (Texting is a form of code!!)

Dactylography (Study of Fingerprints)

The patterns of ridges on our fingers are unique. No two individuals, even identical twins, have fingerprints exactly alike. We leave impressions, or prints, of these patterns on everything we touch. The prints can be visible when our fingers are dirty or oily, or they can be "latent," as when they are made only by the sweat that is always present on our finger ridges. Not even injuries such as burns or scrapes can change the fingerprint structure. To take a fingerprint: rub pencil lead all over an index card to make an "ink" pad. Press your fingers onto the penciled area, then lift the prints from your fingers with transparent tape and place the tape on a white index cards for reading.

Compare and contrast each other's fingerprints.



Copyright: <http://www.FINGERPRINTS.TK>

Entomology (Study of Insects)

At some 1.3 million described species, insects account for more than two-thirds of all known organisms, date back some 400 million years, and have many kinds of interactions with humans and other forms of life on earth.

- Examine a variety of bugs in the area. Identify them using a field guide. Can you list 15 different species? Describe something interesting about each:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

- Set out a peanut butter + jelly sandwich during the day. Observe it a few hours later to see what flies or crawls in for a meal. Use a magnifying glass to get a close look at how specimens crawl, fly or camouflage themselves.
- What is the scientific classification of insects?

Forensics

Forensic science, also known as forensics, is a multidisciplinary branch of science which incorporates biology, chemistry, geology, physics, psychology and several other natural and social sciences. The primary objective of forensic scientists is to use scientific methods of investigation in order to gain impartial evidence that investigators can use in a court of law.

- **Bite Mark Analysis:** Forensic odontologists can learn a lot about the victims and suspects involved in crimes by analyzing any bite marks that were discovered as evidence. A bite mark is as unique as a fingerprint. Using the styrofoam provided, each Pathfinder is to bite down onto the foam and hold for a ½ minute. Put a secret mark on the other side of the foam to identify it as your bite mark. (not your initials please) All foam will be placed on the table for viewing. By observing the teeth of the other Pathfinders, try to identify who the bite marks belong to; record the results.
- **Hair Analysis:** Hair is easily analyzed with modern technology, such as a polarized light microscope, which brings out the color and details of a hair specimen to reveal crucial details. Using a magnifying glass, compare strands of each other's hair. What is the same? What is different?
- **Foot to Height:** When a forensic anthropologist has the length of a foot, he/she is able to approximate the height of an individual. The length of a person's foot is approximately 15 percent of his or her height. Verify this in the table below with other Pathfinders.

Name of Suspect	Foot Length Inches	Multiply By	Divide By	Equals (=)	Approximate Height Inches	Divide By	Height in Feet (Decimal)	Height in Feet & Inches	Results
Comet	9.5	100	15	63	63	12	5.3	5'3"	63 = 63 ✓
		100	15			12			
		100	15			12			
		100	15			12			
		100	15			12			

Graphology (Study of Handwriting)

A person's handwriting - the script - and its placing on the page express the unique impulses of the individual: logically, the brain sends signals along the muscles to the writing implement they control. By examining a handwriting sample, an expert graphologist is able to identify relevant features of the handwritten script, and the way the features interact.

No single handwriting feature proves anything specific or absolute by itself; a single feature alone can only identify a trend. It is the combination of features and the interaction between them that enable a full and clear interpretation. **There are approximately 300 different features. These include: slant, size, pressure, strokes, loops, spacing, position of dots on "i" and crossing of "t", etc.**

Graphology is actually a very old and respected science - the study of handwriting and its analysis was first developed by the Chinese 3,000 years ago. The Romans used graphology, and through the centuries since then various civilizations and cultures have analysed handwriting to identify the essence of the person who produced it.

Basic analysis

- **Is the sample valid?** Has the style of the writing been affected by any external influences? E.g. an uneven writing surface; an awkward writing position; written on the move in a car? You cannot analyse a sample that is not reliable.
- **Size** - Small writing is generally a strong indicator of a detailed, technical personality. Large and rounded letters indicate a friendly and sociable personality.
- **Letter-word slope** - Is there a consistent slope to the letters and therefore the words in the sample? Backwards slopes indicate an introverted personality; forward slopes are extraverted.
- **Line slope** - Writing which rises to the right shows optimism and cheerfulness. Sagging to the right shows physical or mental weariness.
- **Flair/embellishment** - generally a sign that the writer wishes to be noticed more.
- **Other simple indicators** - Large broad upper loops are a sign of emotion. Closed 'e' and other small closed central loops show secrecy. Stand-alone or properly formed 's' at word ends show independence. Small writing is generally a sign of technical personality. Omitted 'i' dots and 't' cross strokes shows forgetfulness or carelessness. Position and style of 'i' dots show different things:
 - Directly above, close to and in line means exacting.
 - Ahead means active and thinking.
 - Flicked shows sense of humour.
 - Behind shows thoughtful.
 - Inconsistent (varying positions) means a distracted mind.

Using the Handwriting Analysis sheet, copy the note as it appears in your handwriting. Do not try to conceal your identity. Submit to a Guider. Then, using the Observations, Measurements and Analysis sheet, you will attempt to identify the writer of the same message!

Herpetology (Study of Reptiles + Amphibians)

- Using a field guide, identify 5 different reptiles or amphibians in the camp area. List below. Compare with the lists of the other teams. You may photograph these for easier identification.
- Observe and record interesting facts about each; present your findings.
- **DO NOT ATTEMPT TO CAPTURE!**

1. _____
2. _____
3. _____
4. _____
5. _____



Inheritance

An inherited trait is a particular genetically determined characteristic that distinguishes a person. The traits of children are determined by the traits that are passed on from their parents. Some traits are obvious in a family like the colour of eyes and hair, but some traits are less obvious. You may have similar traits to each other even though you are not related to each other. There are numerous traits in humans, but some traits occur more frequently than others. Between 70-90% of the human population have free-hanging earlobes, can roll their tongue and are right-handed. These are called high frequency traits. Determine your traits from the 10 sets listed below. Compare with the other Pathfinders.

- Tongue Roller
- Non-Tongue Roller

- Attached Earlobes
- Unattached earlobes

- Dimples
- No Dimples

- Right-handed
- Left-Handed

- Widow's Peak
- Straight Hairline

- Left Thumb on top when Hands Crossed
- Right Thumb on top when Hands Crossed

- Hair on mid-digit of hand
- No hair on mid-digit of hand

- Bent little finger
- Straight little finger

- Second toe longer than big toe
- Second toe not longer than big toe

- Vulcan (Fingers spread 2 by 2)
- None Vulcan

Jokes and Joke-telling /jōk/

Noun

A thing that someone says to cause amusement or laughter, esp. a story with a funny punch line.

Verb

Make jokes; talk humorously or flippantly.

Synonyms

noun. jest - fun - jape - gag - trick - pleasantry - lark

verb. jest - jape - banter - lark - kid - josh

A **joke** is something spoken, written, or done with humorous intention. Jokes may have many different forms, e.g., a single word or a gesture, a question-answer, or a whole short story. To achieve their end, jokes may employ irony, sarcasm, word play and other devices. Jokes may have a punch line, i.e. an ending to make it humorous.

A practical joke or prank differs from a spoken joke in that the major component of the humour is physical rather than verbal (for example placing salt in the sugar bowl).

Think of some of your favourite jokes. Prepare to share them at the campfire. Ensure that the jokes are appropriate for those present at the campfire.



Knots (Mathematics with a Twist!)

“A **knot** is a method of fastening or securing linear material such as rope or string by tying or interweaving. It may consist of a length of one or several segments of rope, string, twine or even chain interwoven such that the line can bind to itself or to some other object. Knots have been the subject of interest for their ancient origins, common uses, and the area of mathematics known as knot theory.”

Reference: Wikipedia.

You should already know the following knots as listed in the PF Program book:

- Reef
- Bowline
- Sheet bend
- Clove hitch

Using the references provided attempt to learn 4 new knots, list below and show the Guiders!

1. _____
2. _____
3. _____
4. _____



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Ludology (Study of Games)

With your team create a game!

It can be a trivia game, a board game, an active game, a puzzle game, a word game, a card game, etc. BUT it must be original and you can use only things found in the outdoors or in the Ziploc baggie!

Give your game a name!

Give your game instructions and/or rules of play!

Introduce your game to the Guiders and show them how to play the game!



Meteorology (Study of Weather)

Find and circle all of the words that are hidden in the grid.
The remaining letters spell an additional weather word.

F O R E C A S T Y W F O G R T O
D P C W N T R T I N V T E B H D
R I T H O T E N H E N T S L E A
I S H G O N D M R U E U F I R N
Z U G N H Y S C P M N A S Z M R
Z I U I P E A H O E H D C Z O O
L S O N Y S I R U R R I E A M T
E L R T T R A E E M M A L R E P
I E D H S B U N N A I L T D T F
E C O G R O H O N A A D I U E R
N O O I A E R U P U C M I A R E
O L L L I T S F Q N T I R T H E
L D F T N T A S H O W E R O Y Z
C Y T I L I B I S I V O E R T E
Y T I M O N S O O N O N D L U S
C C L O U D S E I R R U L F S H

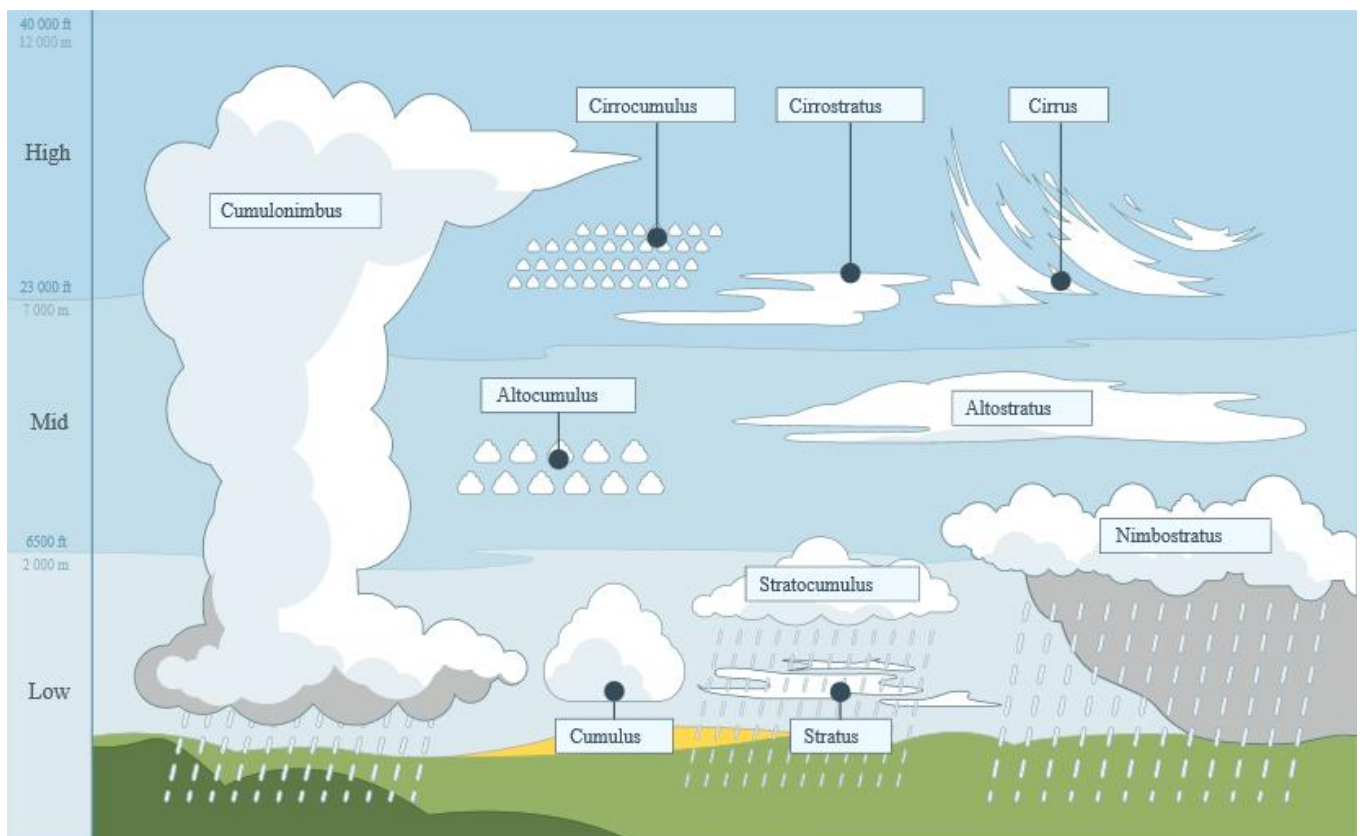
BAROMETER	FLOOD	ICE	STORM
BLIZZARD	FLURRIES	LIGHTNING	SUNNY
CELSIUS	FOG	MIST	TEMPERATURE
CLOUDS	FORECAST	MONSOON	THERMOMETER
COLD	FREEZE	OVERCAST	THUNDER
CYCLONE	FROST	RAIN	TORNADO
DOWNPOUR	HAIL	SHOWER	TSUNAMI
DRIZZLE	HOT	SLEET	TYPHOON
DROUGHT	HUMIDITY	SNOW	VISIBILITY
FAHRENHEIT	HURRICANE	SQUALL	WINDY

Solution:

Nephology (Study of Clouds)

Clouds form when humid air cools enough for water vapor to condense into droplets or ice crystals. Cloud formations (stratus, stratocumulus, nimbostratus, fog, altocumulus, altostratus, cirrus, cirrostratus, cirrocumulus, cumulus, and cumulonimbus) are classified into four basic categories, depending largely on the height of their bases above the ground: low-level, mid-level, high-level, and convective clouds.

Clouds are white because they reflect the light of the sun. Light is made up of colors of the rainbow and when you add them all together you get white. The sun appears a yellow color because it sends out more yellow light than any other color. Clouds reflect all the colors the exact same amount so they look white.

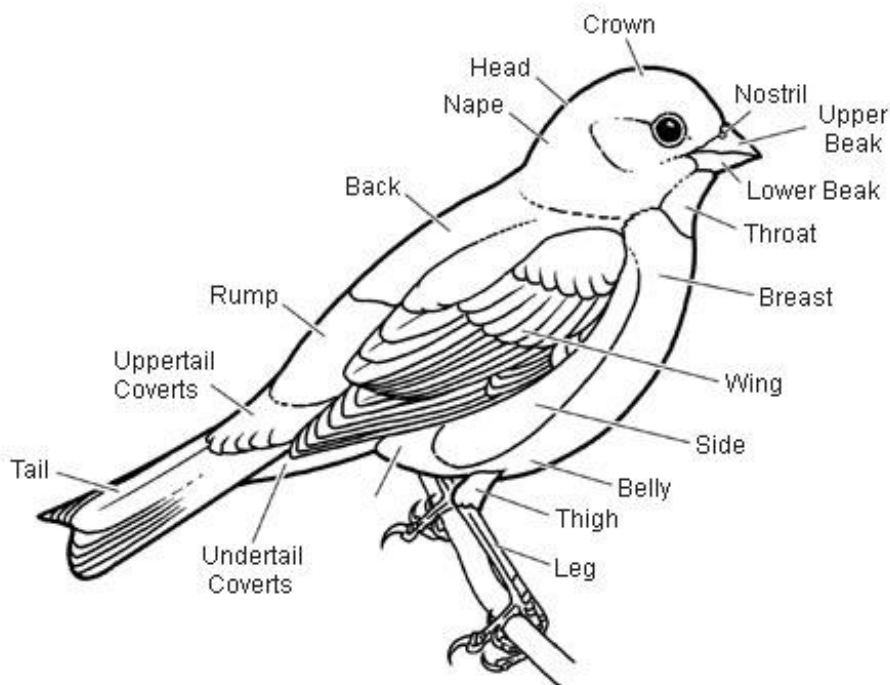


Lie down and observe the clouds. With a little imagination you can often see things in the clouds - but sometimes the shapes are so obvious they jump out at you. Make a list of things you see in the clouds, sketch them to show the Guiders.

Ornithology (Study of Birds)

- Using a field guide, identify 10 different birds in the camp area. List below. Compare with the lists of the other teams. You may photograph these for easier identification.
- Observe and record interesting facts about each; present your findings.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____



Paleontology (Study of Fossils)

Fossils are the remains of animals and plants that died long ago. These animals and plants used to live in the sea. Their remains have been replaced by minerals and the resultant cast is called a fossil.

Most of the time, the fossil is made of rock harder than the surrounding rock and so it survives. As the host rock erodes, the fossil weathers out and rolls away - often onto a shoreline or in a creek bed.

Fossils are interesting to look at even if you don't know what they are called or when they were formed. Many fossils look similar to plants and animals that still live today. Below are fossils that have been found in Ontario.

Plants



Animal (Trilobite)



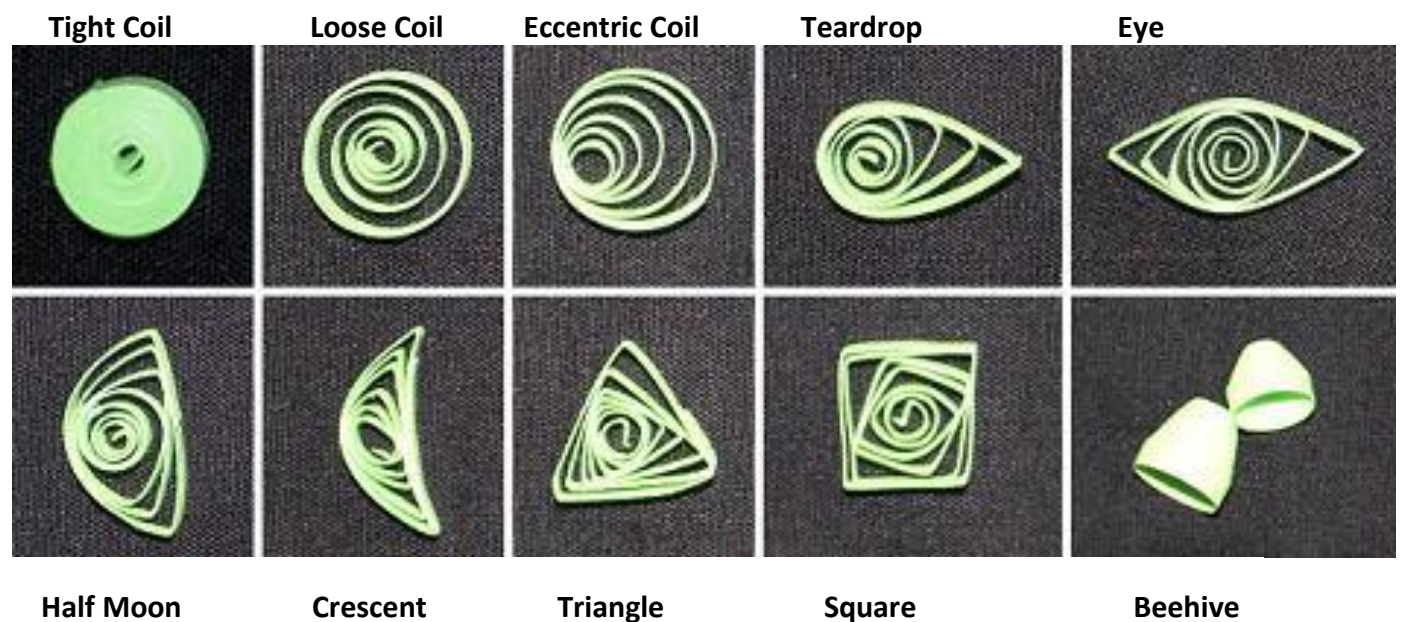
Go on a fossil hunt! The best place in the Apple Hill Scout Reserve is where there is a body of water. Check the map! Bring a magnifying glass and a Ziploc bag. Gently turn over rocks to see if there are fossils present.

If you find fossils, try to determine if they are plant or animal life from long ago.

Quilling (Study of Paper Filigree)

Strips of paper are rolled, shaped, and glued together to create decorative designs. The paper is wound around a quill to create a basic coil shape. The paper is then glued at the tip and these shaped coils are arranged to form flowers, leaves, and various ornamental patterns.

Items required: strips of lightweight paper $\frac{1}{8}$ or $\frac{1}{4}$ inches wide, glue and a tool with which to roll the paper (needle, skewer, quilling tool).

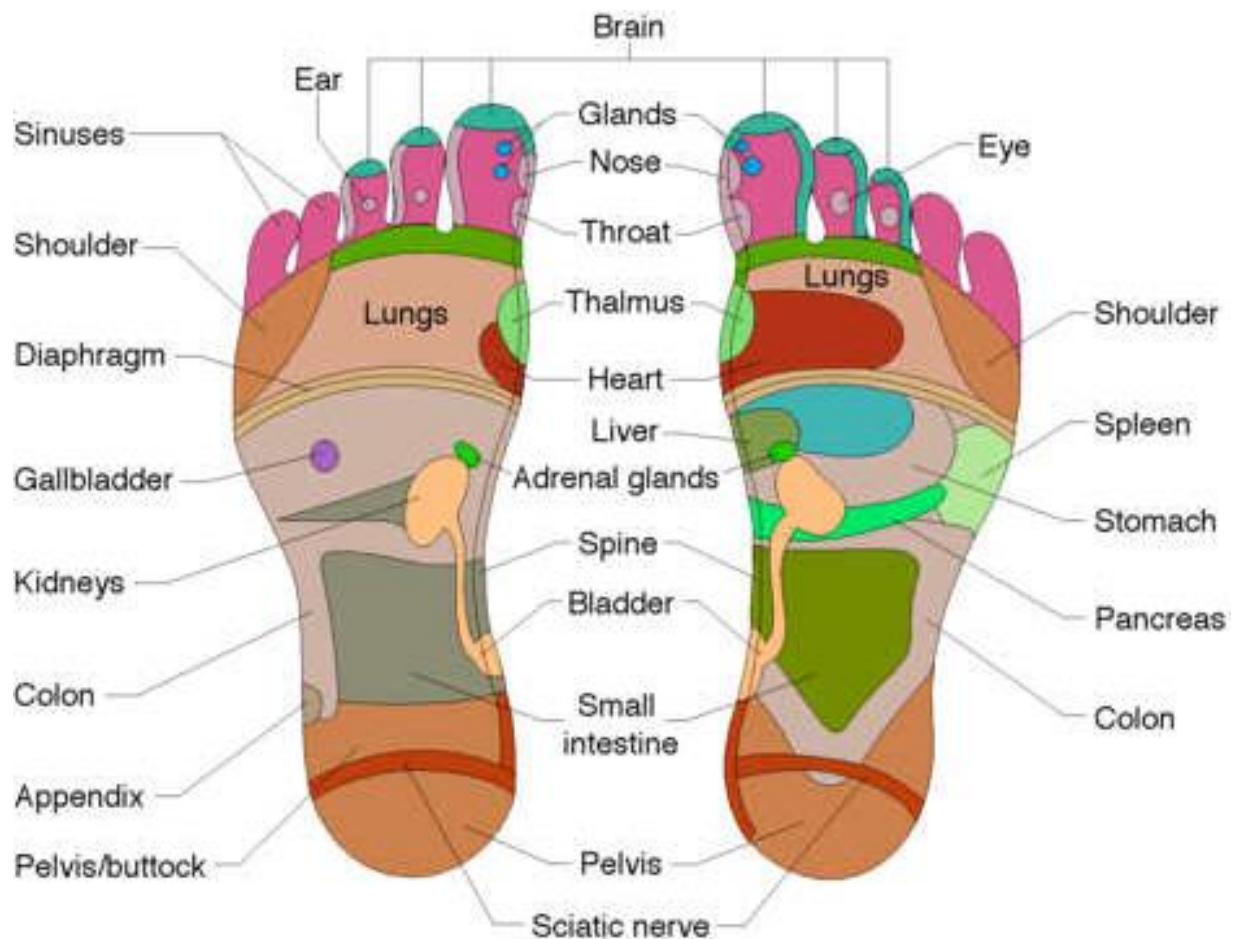


Try your hand at this centuries-old art form!

Reflexology

The Reflexology Association of Canada defines reflexology as: "A natural healing art based on the principle that there are reflexes in the feet, hands and ears and their referral areas within zone related areas, which correspond to every part, gland and organ of the body. Through application of pressure on these reflexes without the use of tools, crèmes or lotions, the feet being the primary area of application, reflexology relieves tension, improves circulation and helps promote the natural function of the related areas of the body."

Although reflexology is not used to diagnose or cure health disorders, millions of people around the world use it to complement other treatments when addressing conditions like anxiety, asthma, cancer treatment, cardiovascular issues, diabetes, headaches, kidney function, PMS, and sinusitis. What sections of the feet would you apply pressure to in order to relieve the symptoms of allergies? Try it and see!



Symbology (Study of Symbols)

A symbol is something that represents an idea, a process, or a physical entity. The purpose of a symbol is to communicate meaning. For example, a red octagon is a symbol for "STOP". On a map, a picture of a tent might represent a campsite and an organized collection of symbols on the map forms a legend. You use symbols every day and some symbols form simple logos such as the Girl Guides of Canada trefoil! One simple symbol is the question mark "?".

1. Draw as many symbols below as you can think of. See if the Guiders know what they mean.

2. Do you know what the following symbols represent?

% @ v € ≥ ° ÷

∅ ¢ Ω ∞ ● £ Δ

Technology (Application of Scientific Knowledge)

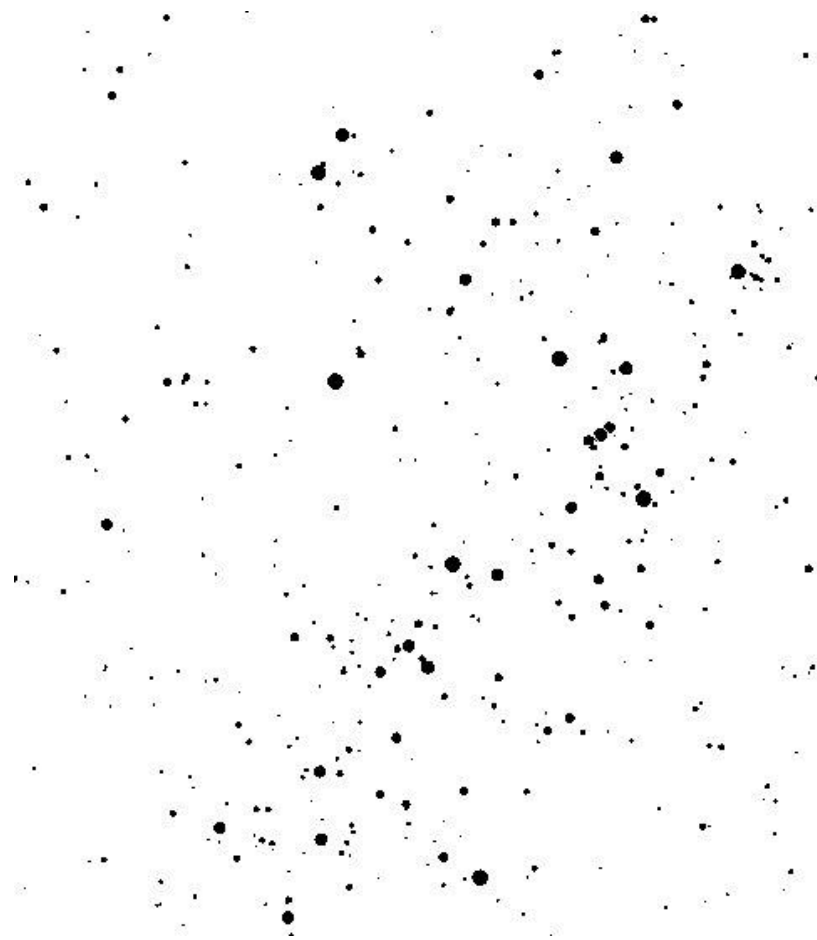
Investigate the **technology of camping** by performing the following tasks:

- Pitching (setting up) the tent. Pay attention to the design, fabric and materials of the tent you are using. Why do you think this is?
- Laying a fire. What is required to set up a fire? What do you need to keep the fire burning? What are the safety rules around campfires and camp stoves?
- Constructing a temporary shelter. What items might you use? Where would be the best place to construct this shelter? Why?
- Examine a latrine's structure. Devise a cleaning schedule and take turns with the other teams to ensure that the latrine is always clean. Why?
- Striking (taking down) the tent. Ensure that the tent is ready to be re-packed into its carrying case. Is it more difficult to pitch or strike the tent? Why?

Uranography (Star Cartography or Mapping)

A **star chart** is a map of the night sky. Astronomers divide these into grids used to identify and locate astronomical objects such as stars, constellations and galaxies. They have been used for human navigation since time began.

- The oldest star chart known may be a carved ivory Mammoth tusk that was discovered in Germany in 1979. This artifact is 32,500 years old and has a carving that resembles the constellation Orion.
- A drawing on the wall of the Lascaux caves in France has a graphical representation of the Pleiades star cluster, dated to 33,000 - 10,000 years ago.
- Computerized star maps are used today and automated positioning of telescopes is done using databases of stars and other astronomical objects.



Make your own constellation by connecting some of the dots in the diagram above. Name it and create a story about it.

Vexillology (Study of Flags + Flag Design)

The word comes from the Latin "vexillum," meaning "flag" or "banner." Flags originally helped ancient armies coordinate on the battlefield. Today, every country and many organizations have a flag. Flags can represent land or maritime boundaries and possessions. Flags are usually hoisted on a flagpole and flown so that everyone can be reminded of the values and history of the country. Flags incite patriotism and respect for those who lost their lives fighting for its values.

Because they are flown outside, where they move with the wind, flags are usually designed with bold images and bright, basic colors.

A person who studies flags is a *vexillologist*, and a person who designs flags is a *vexillographer*.

Part 1: List as many flags/banners as you can and sketch them in the notebook:



Part 2: As a team, design a flag that best represents you as a group.

Wildlife Tracking

There are three ways to see wildlife:

- Start hiking and hope that you become lucky
- Try to follow the tracks that you found during your hike
- Try to understand the story behind the tracks

Tracks are not limited to deer, moose, fox, dogs and the rest of the animals that come to mind when tracks are mentioned. Ants, turtles, snakes, birds and a whole assortment of reptiles and insects leave tracks, too.

Tracking is a difficult skill to acquire. It has to be mastered and practiced. Wildlife photographers follow the 6 elements of tracking:

1. What Wildlife Can I See? This is the most important element. If you don't know what wildlife you could see during your hike, then you will never be able to ask questions. Study a field guide or any other resource that will help you know what wildlife you could see in your area. For instance, if the chipmunk goes into hibernation at the end of November, there is no chance that you are going to see a chipmunk in January. By knowing what wildlife you can see and what wildlife you cannot see allows you to make better decisions on how to discover wildlife.

2. Who Made The Tracks? What type of animal made these tracks? There are numerous pocket guides available for resources in identifying tracks.

3. What Was The Animal Doing When The Tracks Were Made? Was the animal chasing another animal or hunting another animal? Was the animal walking or looking for a place to sleep?

4. When Were The Tracks Made? By identifying when the tracks were made, maybe you can come back tomorrow at the time you think the animal comes by. If you are hiking at 10:00 after a snow storm that ending in the early morning and you can see well-defined tracks, you know that the animal had to come by between early morning and 10:00. If the animal came by earlier in the morning, the snow still falling would have covered up the tracks. So, you might decide to come by at dawn the next day and wait.

5. Where Did The Animal Go From Here? Is it just passing through? Did it go to sleep nearby? Sometimes, by following deer tracks for a short distance, you will find where the animal slept during the night.

6. Why Did The Animal Go Though Here? Why does the animal move at a

specific time of day? Is this a pattern for this animal? Will it come by tomorrow and use this same path? Deer have roads and highways through the woods that they constantly use.

Guide To Animal Tracks

TRACK PATTERN		
	WHITE-TAILED DEER 2 1/2" to 3"	MOOSE 4 1/2" to 5 1/2"
	H F	H - 2 1/4" F - 2 1/2"
	DOG - 2 1/4" to 4"	COYOTE
TRACK PATTERN	H - 2" F - 2 1/4"	H - 1 3/4" F - 2"
	RED FOX	GRAY FOX
	H F	F - 4 1/4"
	BOBCAT - 1 7/8"	LYNX
TRACK PATTERN		
	H - 3"	HOUSE CAT - 1 to 2"
	H	FISHER - 2 1/4"
	MINK - 1"	WEASEL - 1/2" to 1"
TRACKS NOT TO SCALE		
<p>Depending on the substrate (snow, mud, dust, sand, etc.) and the speed the animal was moving, tracks may show great variability in their appearance.</p> <p>F - Front track H - Hind track T - Tail marks may be present</p>		

TRACK PATTERN	H - 4" F - 2 1/2"	H - 2" F - 2"
	RACCOON	STRIPED SKUNK
	H - 3 1/4" F - 2 3/4"	H - 6" F - 3"
	PORCUPINE	BEAVER T
TRACK PATTERN	H - 7" F - 4 1/2"	H - 2" F - 1 1/4"
	BLACK BEAR	OPOSSUM T
	H - 2 1/4" F - 2"	H - 2 1/2" F - 1 1/2"
	WOODCHUCK	MUSKRAT T
TRACK PATTERN	H - 5" F - 2"	H - 3 1/2" F - 1"
	SNOWSHOE HARE	COTTONTAIL RABBIT
	H - 2 1/4" F - 1 1/2"	H F
	GRAY SQUIRREL	WHITE-FOOTED MOUSE - 1/4" T
<p>CROW - 2 1/2" TURKEY - 4" RUFFED GROUSE - 2"</p> <p style="background-color: #006400; color: white; padding: 5px; text-align: center;">WILDLIFE CONSERVATION: <i>begins with conserving habitat!</i></p>		

Attempt to locate and identify animal tracks in the camp area. Show the Guiders what you have found. Take photographs if you would like!

Yodeling

Yodeling is a form of singing that involves singing an extended note which rapidly and repeatedly changes in pitch from the vocal chest voice to the falsetto/head voice register, making a high-low-high-low sound.

All human voices are considered to have at least two distinct vocal registers, called the "head" and "chest" voices, which result from different ways that the tone is produced. Most people can sing tones within a certain range of lower pitch in their chest voices and tones within a certain range of higher pitch in their head voices and spring into their falsetto (an "unsupported" register forcing vocal cords in a higher pitch without any head or chest voice air support). Yodeling is an application of this technique.

For example, in the famous "Yodel - Ay - EEE - Oooo", the "EEE" is sung in the head voice while all other syllables are in the chest voice. Try it!!

Historically, yodeling in the Alps of Europe was done to communicate between villages or between herders and their herds. The best places for Alpine-style yodeling are those with an echo.

The most famous yodeling tune known around the world is thought to be the song "The Lion Sleeps Tonight", also known as "Wimbaway". (South Africa, 1939)

Wimbaway

1. Wimbaway, wimbaway, wimbaway, wimbaway,
Wimbaway, wimbaway, wimbaway, wimbaway.
2. Hi yup ho, Wimbaway, wimbaway, wimbaway.
3. Ah . . . Wimbaway, oh wimbaway.
4. Ah, ah, ah, ah, Oh wimbaway.

The Lion Sleeps Tonight

1. In the jungle, the mighty jungle, the lion sleeps tonight. In the jungle, the quiet jungle, the lion sleeps tonight.
2. Near the village, the peaceful village, the lion sleeps tonight. Near the village, the quiet village, the lion sleeps tonight.
3. Hush my darling; don't fear my darling, the lion sleeps tonight. Hush my darling; don't fear my darling, the lion sleeps tonight.

Zoology (Study of Animals)

- Make a list of animals you might find in the camp area. Write down anything you already know about the animals and their behavior. Stay very still and quiet for a period of time as you look around, making more detailed factual observations. Then gather together with the other teams to discuss your observations. You may take photographs.

Animal

Behaviour

Observations

- What was accurate about your initial knowledge of the animals and what did you learn from your observation?

17th Cornwall Pathfinders Science Camp 2013 Kit List

Clothing

- Socks (x3)
- Underwear (x3)
- Shirts x(3)
- Pants (x2) (Jogging Pants)
- Shorts/Capris (x2-3)
- Long Sleeve/Hoodie (x1)
- Sweater/Jacket (x1)
- Bra (x2-3)
- PJs (x1-2 Bottoms)
- Boots (x1)
- Running Shoes (NO SANDALS)
- Hat with Brim
- Mitts, Toque for cool nights
- Rain Coat/Poncho(x1)
- Slush Pants (Optional)

Toiletries

- Toothbrush/Floss
- Toothpaste
- Sanitary Napkins (if needed)
- Face Cloth/Towel
- Hair Brush/Accessories
- Purell (Optional)
- Hand Soap (Optional)
- Kleenex
- Deodorant

Note: Kit List items must all fit into one piece of luggage (excluding folding chair)!

Note: No cell phones, DS units, etc.

Bedding

- Foam/Small Air Mattress
- Sleeping Bag
- Pillow
- Blanket
- Small sleeping buddy (optional)
- Tarp (under sleeping bag)

Other

- Sunscreen (Squirt- No Aerosol)
- Bug Spray (Squirt- No Aerosol)
- Sun Glasses
- Camera (Optional)
- Book/Journal (Optional)
- Folding Chair or Sit Upon (Optional)
- Re-Usable Water Bottle
- Swiss army knife (Badge holders only)
- Program book (if you have one)
- Pen, notepad
- Flashlight (crank or battery powered)
- Extra batteries
- Ditty bag + Dishes (bowl, cup, plate) + Cutlery (knife, fork, spoon)
- Camp Blanket or Poncho (Optional)
- 4 Litres Water (drinking) in any volumes

Name: _____

17th CORNWALL PATHFINDERS SCIENCE CAMP 2013

AWARDS

- To be presented during the Guides' Own at camp closing.
- Guiders can not be nominated for awards!
- Cut the ballot off of the bottom of this page and submit completed ballots to the Guiders.
- Each Pathfinder will vote for any other Pathfinder (including herself, if she feels she is deserving) for each of the awards:

1. I Survived Camp Award
2. Tidy Camper Award
3. Problem Solving Award
4. Oops! Award

I Survived Camp Award _____

Tidy Camper Award _____

Problem Solving Award _____

Oops! Award _____