

What is Orienteering?



Overview

- What is Orienteering?
- The Map and Symbols
- Basic Orienteering Skills
- Why Orienteer?
- Where can I try it?



Video: <https://www.youtube.com/watch?v=2BkdErckeYM>

The basic idea

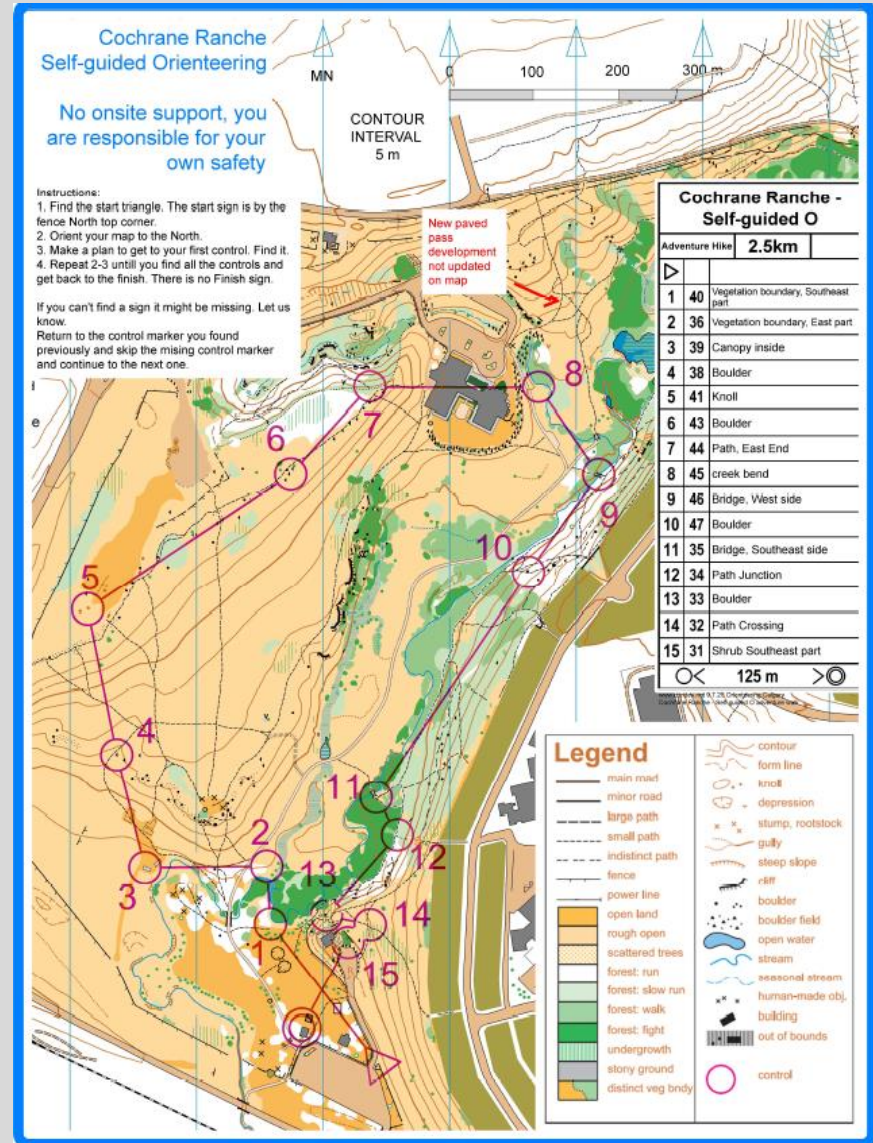
- Orienteering is a navigational sport uses traditional/paper map and compass
- Participants must navigate from one point to another completing a set course on the map
- Orienteering can be enjoyed as a leisurely walk in the woods or as a highly competitive race.
- Originated from Scandinavia over a hundred years ago and has since spread throughout the world with international events and established World Championships.
- Generally 3 type of races:
 - Sprint – urban, short distance (3-5 km)
 - Middle – forest, technical (3-5 km)
 - Long – forest, technical and long distance (5-10 km)

What do you need to try orienteering?

- Map and a set course
- Basic skills :
 - read the map by understanding symbols
 - orient your map (or compass work)
 - run or walk to complete the course

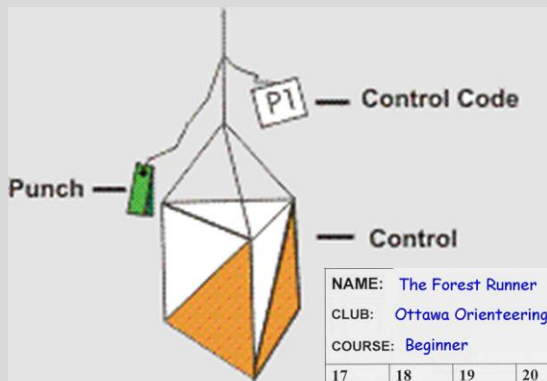
The Map and the Course...

- **The map:** is a special small-scale topo map with many details about the land and features
- **The course:** consists of a **start**, a series of **control sites** to be visited in order, and a **finish**.



What are the controls?

- A **control** marks the location you need to find
- Old-school Punches or electronic timing
- The **Control description** help to know what are you looking for



NAME: The Forest Runner	START: 10:40						
CLUB: Ottawa Orienteering Club	FINISH: 11:12						
COURSE: Beginner	TIME: 32:00						
17	18	19	20	21	22	23	24
9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8

Baker Park Wed Night			
1. TRY IT short	1.1 km (1063m)		
▶			
1 37	×		
2 35	↙		○
3 32	↙		
4 34	×		○
5 38	▲		○
6 39	↗		—
7 42	⌘		
8 41	↙		○
9 44	↙		<
10 40	■		○
○<	100 m	>◎	

Baker Park Wed Night		
1. TRY IT short	1.1 km (1063m)	
▶		
1 37	Bench	
2 35	Forest corner, South edge	
3 32	Forest corner (Inside)	
4 34	Bench	
5 38	Monument or Statue, South side	
6 39	Wall, West End	
7 42	Shrub	
8 41	Forest corner, South edge	
9 44	Forest corner, West corner (inside)	
10 40	Gazebo, North side	
○<	100 m	>◎

Orienteering basics

Video by British Orienteering:

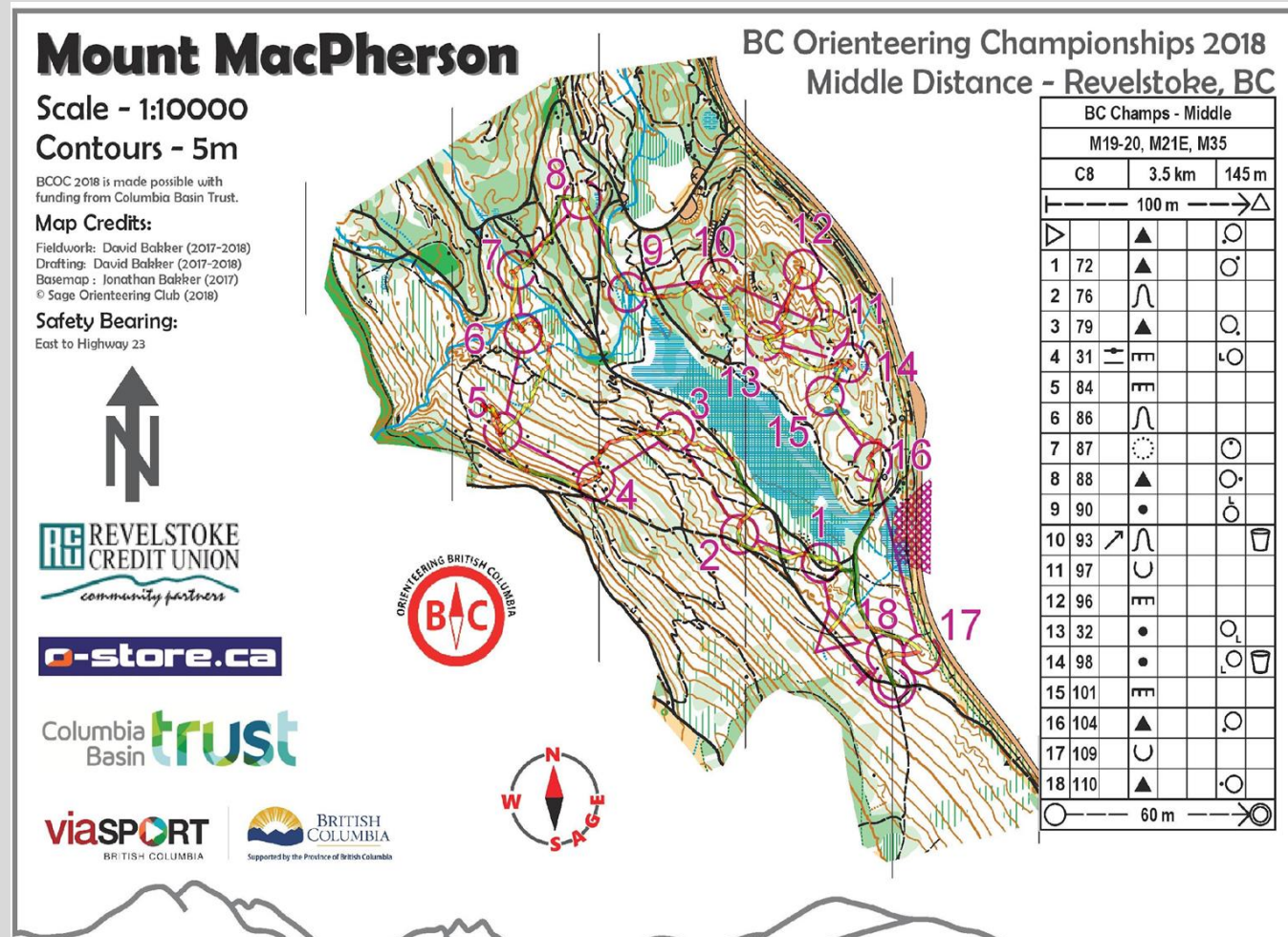
<https://www.youtube.com/watch?v=26Zc5AVkFis>

The Map



What's on the map ?

- Name
- Scale
- Gridlines
- Control description
- Mappers
- Safety notes



The Scale

- **Map Scale**

The distance on the map relative to the distance in the terrain.

1 : 5,000 1 cm on the map = 50 m on the ground

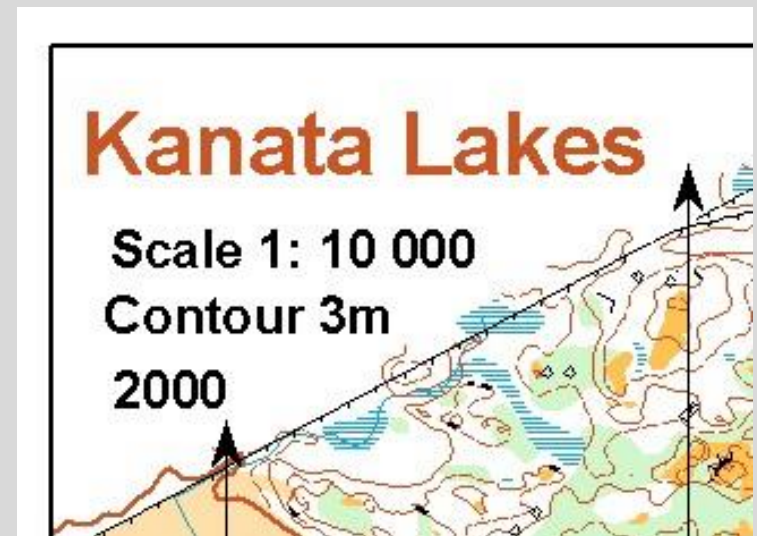
1 : 10,000 1 cm on the map = 100 m on the ground

1 : 15,000 1 cm on the map = 150 m on the ground

- **Contour Interval**

The contour lines describe the land features

The difference in elevation between two contour lines in meter.



IOF Orienteering Map Symbols

Land forms

	Contour
	Index contour
	Form line
	Slope line
	Contour value
	Earth bank
	Earth wall
	Small earth wall
	Erosion gully
	Small erosion gully
	Knoll
	Small knoll
	Elongated knoll
	Depression
	Small depression
	Pit
	Broken ground
	Special land form feature

Water and marsh

	Lake
	Pond
	Waterhole
	Uncrossable river
	Crossable watercourse
	Crossable small watercourse
	Minor water channel
	Narrow marsh
	Uncrossable marsh
	Marsh
	Indistinct marsh
	Well
	Spring
	Special water feature

Rock and boulders

	Impassable cliff
	Rock pillars/cliffs
	Passable rock face
	Rocky pit
	Cave
	Boulder
	Large boulder
	Boulder field
	Boulder cluster
	Stony ground
	Open sandy ground
	Bare rock

Man-made features

	Motorway
	Major road
	Minor road
	Road
	Vehicle track
	Footpath
	Small path
	Less distinct small path
	Narrow ride
	Visible path junction
	Indistinct junction
	Footbridge
	Crossing point with bridge
	Crossing point without bridge
	Railway
	Power line
	Major power line
	Tunnel
	Stone wall
	Ruined stone wall
	High stone wall
	Fence
	Ruined fence
	High fence
	Crossing point
	Building
	Settlement
	Permanently out of bounds
	Paved area
	Ruin
	Firing range
	Grave
	Crossable pipeline
	Uncrossable pipeline
	High tower
	Small tower
	Cairn
	Fodder rack
	Special man-made feature

Technical symbols

	Magnetic north line
	Registration marks
	Spot height

Vegetation

	Open land
	Open land with scattered trees
	Rough open land
	Rough open land with scattered trees
	Forest: easy running
	Forest: slow running
	Undergrowth: slow running
	Forest: difficult to run
	Undergrowth: difficult to run
	Vegetation: very difficult to run, impassable
	Forest runnable in one direction
	Orchard
	Vineyard
	Distinct cultivation boundary
	Cultivated land
	Distinct vegetation boundary
	Indistinct vegetation boundary
	Special vegetation feature

Overprinting symbols

	Start
	Control point
	Control number
	Line
	Marked route
	Finish
	Uncrossable boundary
	Crossing point
	Out-of-bounds area
	Dangerous area
	Forbidden route
	First aid point
	Refreshment point





The map legend and symbols

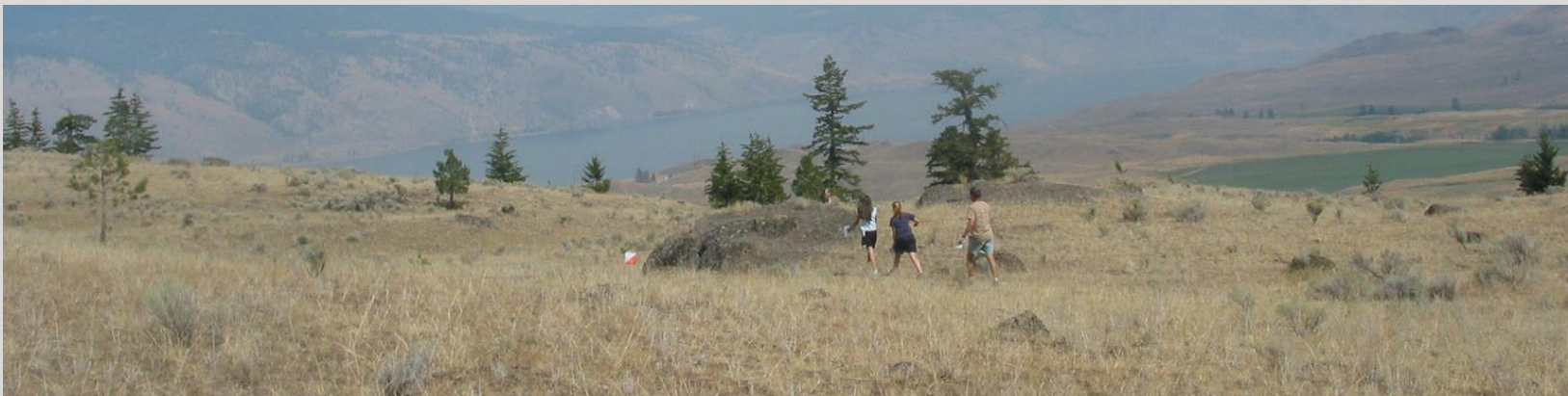
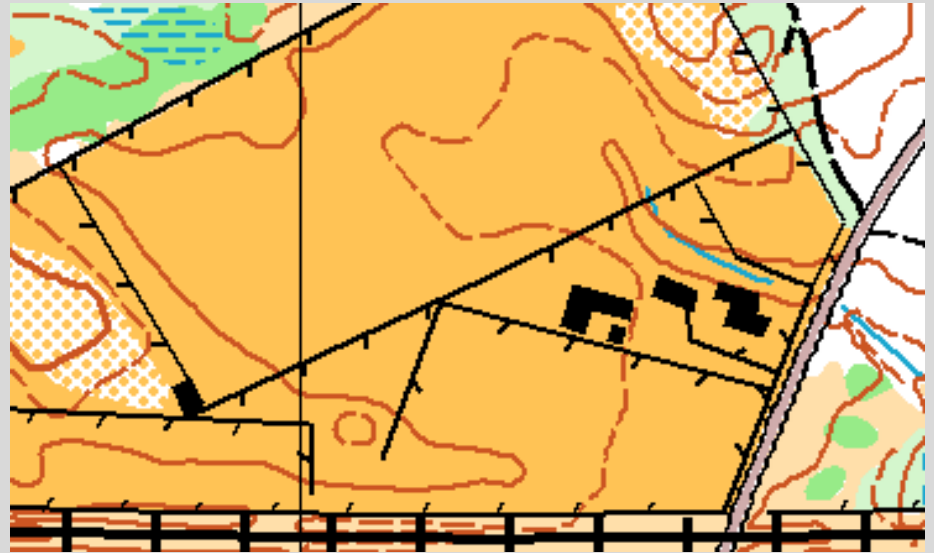
- Governed by IOF
- It's exactly the same all over the world

Vegetation

Yellow: Open Land


Vegetation

-  Open land
-  Open land with scattered trees
-  Rough open land
-  Rough open land with scattered trees



Vegetation

White: Open Forest

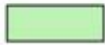

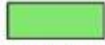



 Forest: easy running

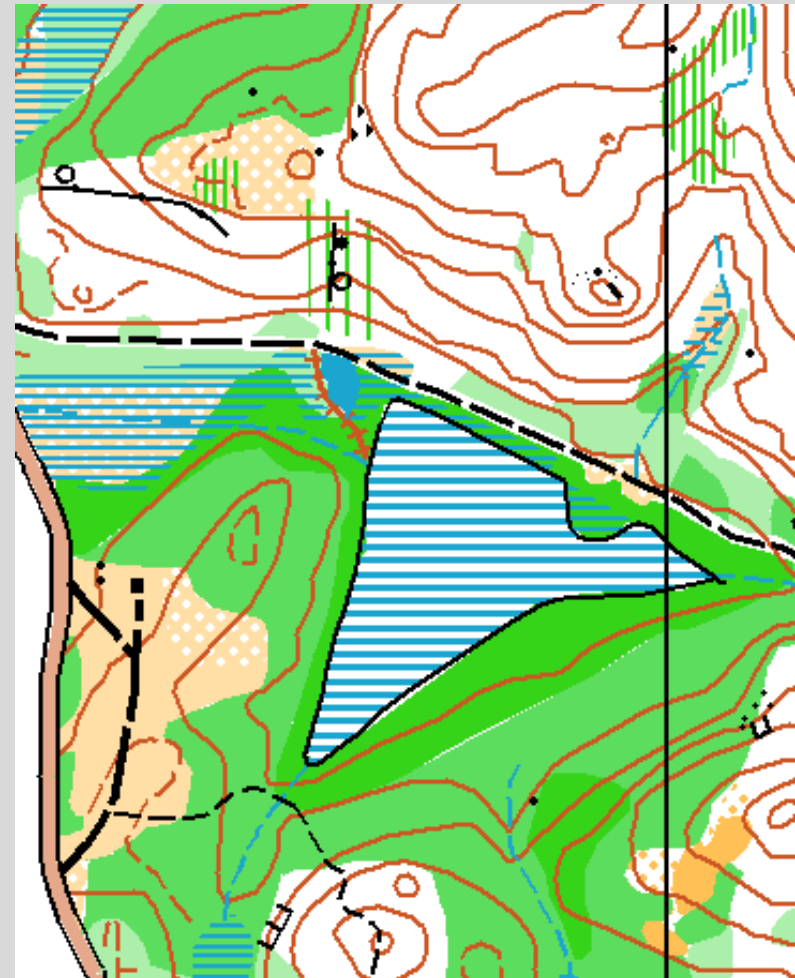


Vegetation

Green: Thick Vegetation















Best to avoid

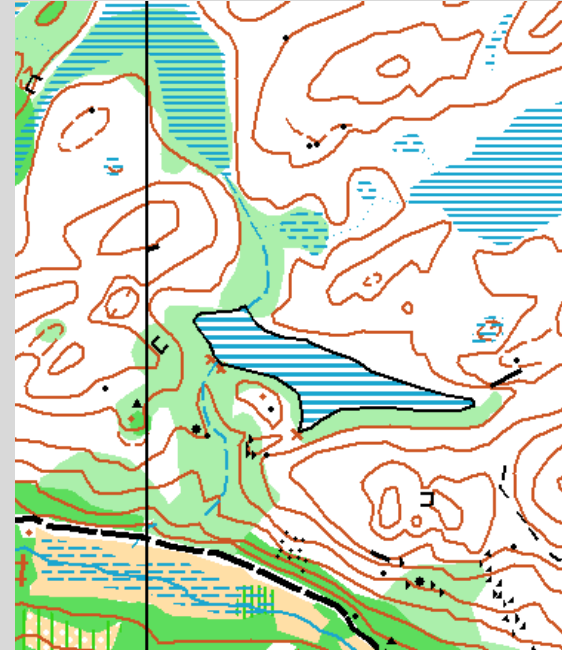
	Forest: slow running
	Undergrowth: slow running
	Forest: difficult to run
	Undergrowth: difficult to run
	Vegetation: very difficult to run, impassable
	Forest runnable in one direction



Blue: Water Features



























Water and marsh

-  Lake
-  Pond
-  Waterhole
-  Uncrossable river
-  Crossable watercourse
-  Crossable small watercourse
-  Minor water channel
-  Narrow marsh
-  Uncrossable marsh
-  Marsh
-  Indistinct marsh
-  Well
-  Spring
-  Special water feature



Black: Man-Made features & Rock

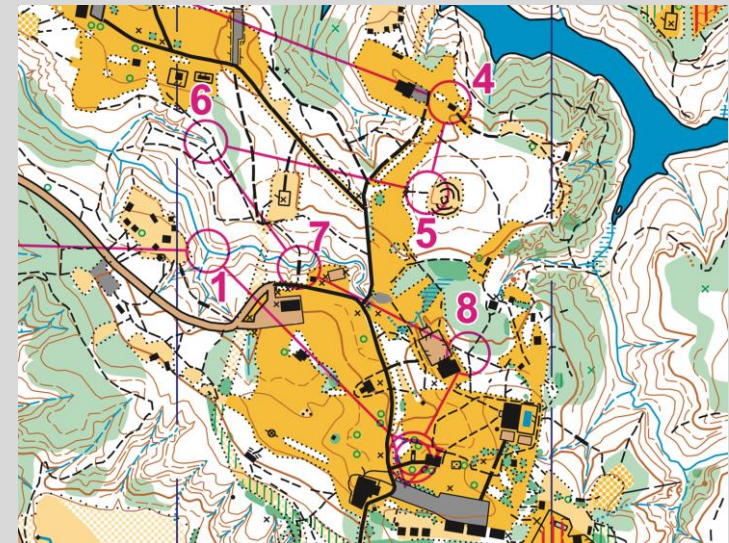
Man-made features

	Motorway
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	Major power line
	Tunnel
	Stone wall
	Ruined stone wall
	High stone wall
	Fence
	Ruined fence
	High fence
	Crossing point
	Building



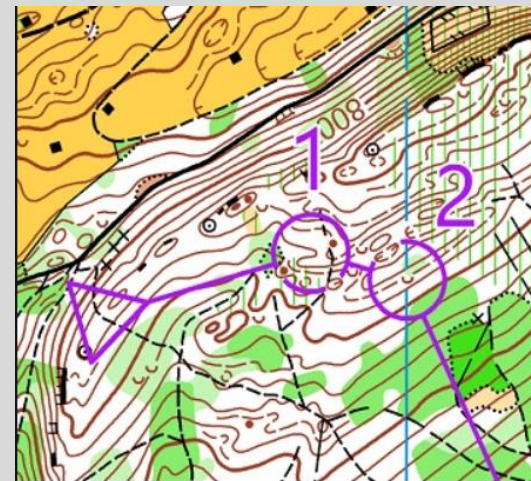
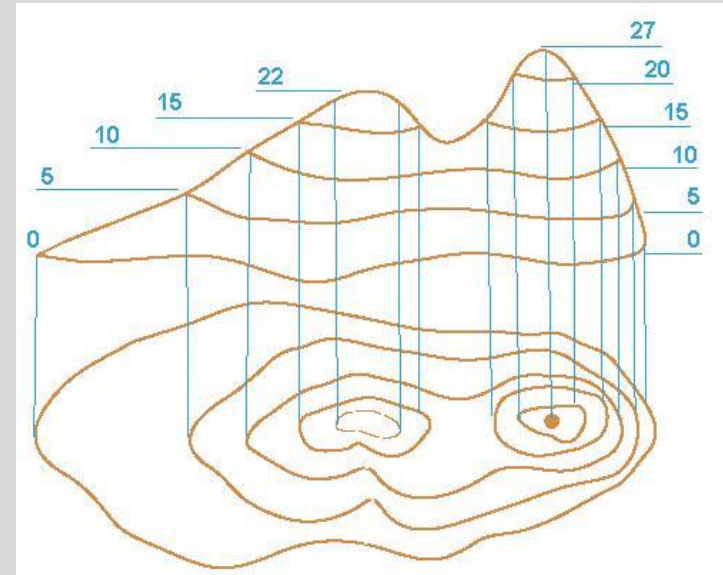
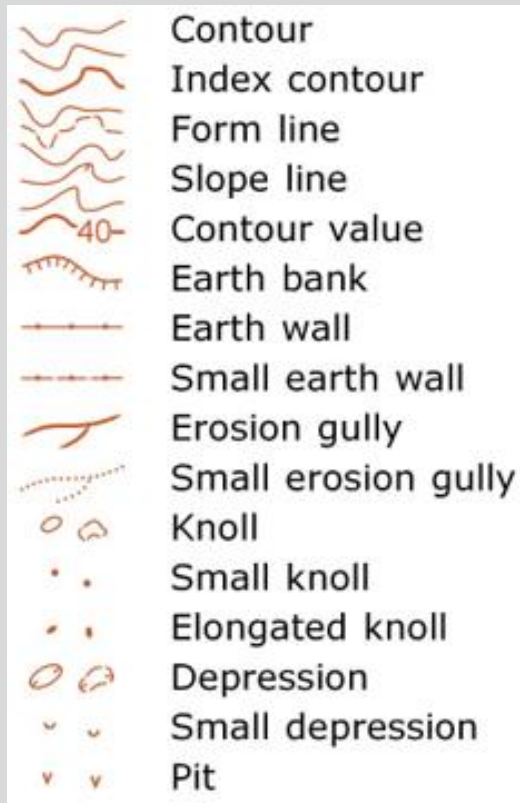
Rock and boulders

	Impassable cliff
	Rock pillars/cliffs
	Passable rock face
	Rocky pit
	Cave
	Boulder
	Large boulder
	Boulder field
	Boulder cluster
	Stony ground
	Open sandy ground
	Bare rock



Contours

Brown: Shape of the Land



Contour lines represent the same elevation points connected in the landscape.

Quick Quiz

Puzzle Number: 1

Original

Altered



How many buildings are missing?

Answer:3

Puzzle Number: 1

Original



Altered



Puzzle Number: 2

Original

Altered



What is new?

Building

Boulder

Path

Fence

Answer: Path

Puzzle Number: 2

Original

Altered



What is new?

Building

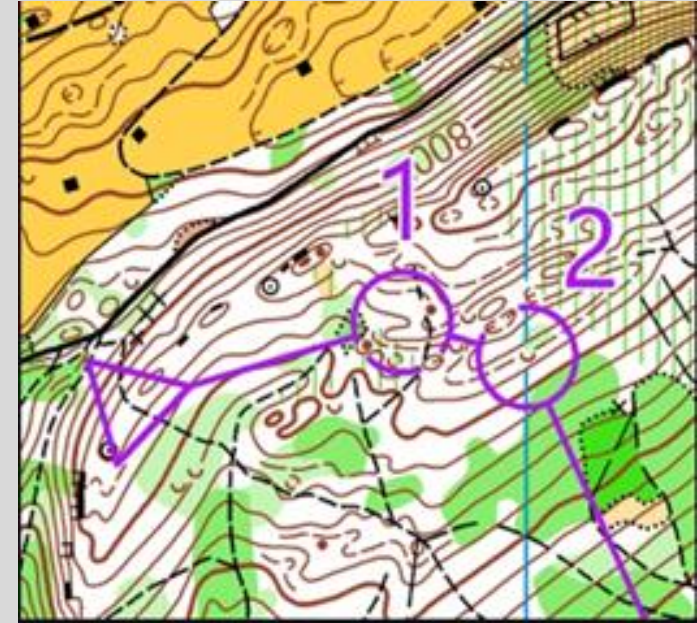
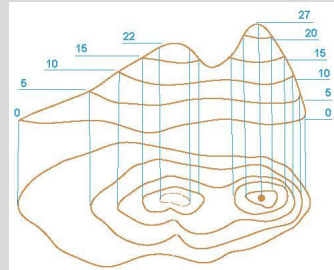
Boulder

Path

Fence

More about the contours

Shape of the Land



Contour lines represent the same elevation points connected in the landscape. Closer the contour lines are steeper the hill is.

Video:

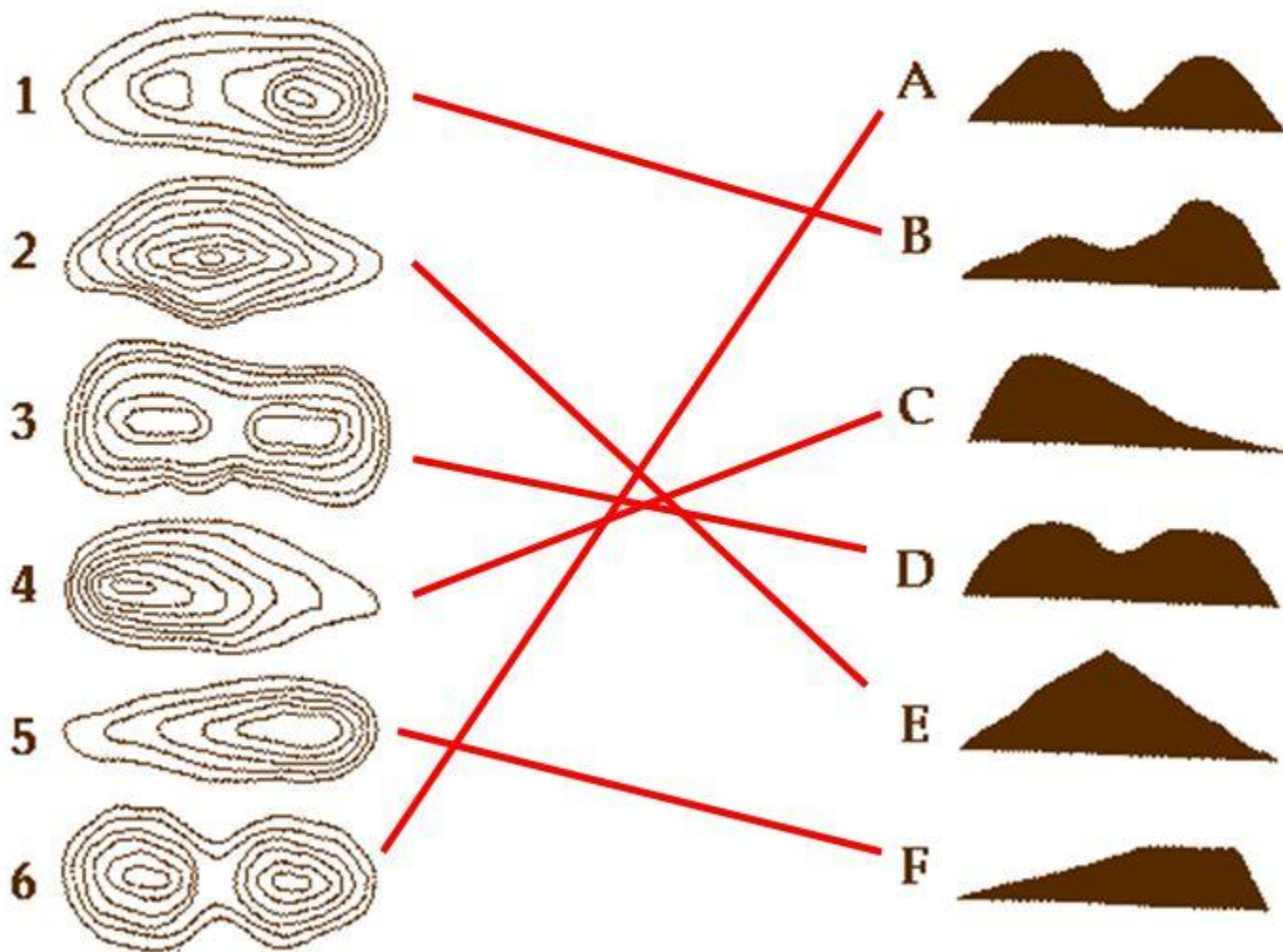
1. [Topo Map: https://www.youtube.com/watch?v=4i_6eToM3X8](https://www.youtube.com/watch?v=4i_6eToM3X8)

Contours

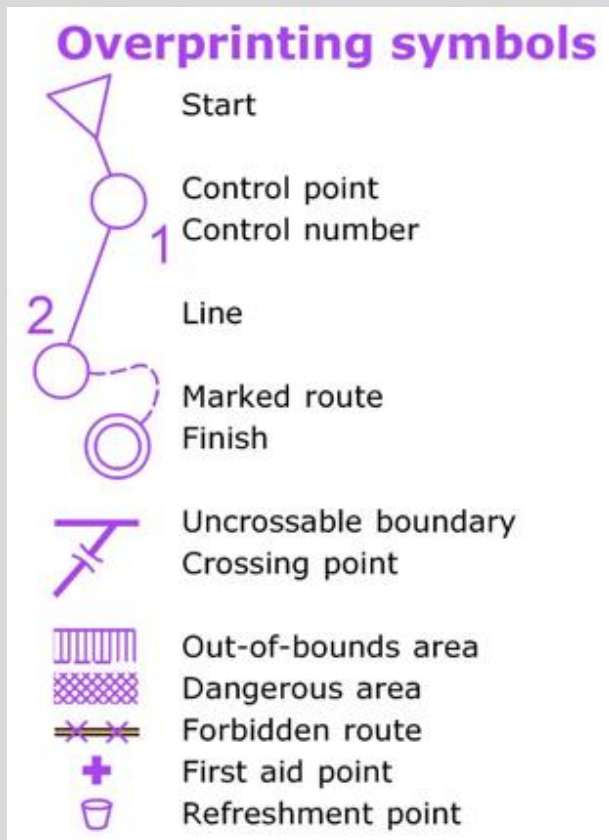
Match each contour map with the correct relief model



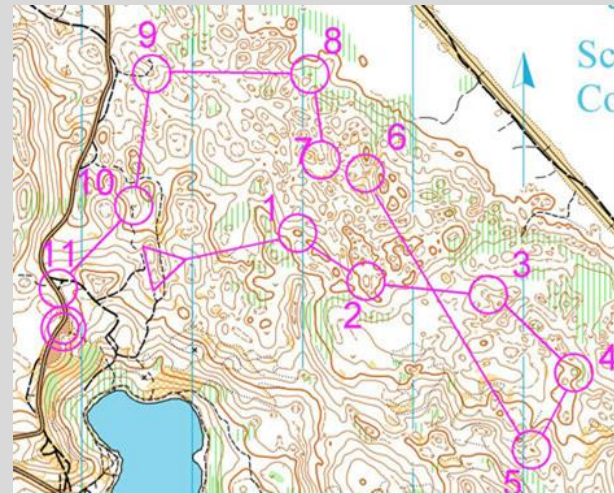
Match the Contour Lines to the Topographic Profile



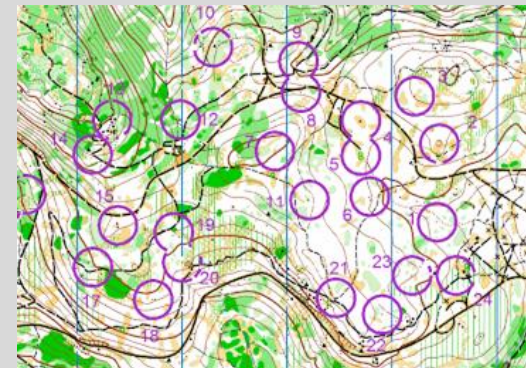
Orienteering course



- **Course: point to point** course, you must follow the order to visit the controls
- Each age group and level has different difficulty of navigation and distance



- **Score O:** you can visit the controls in any order and collect the points. Usually there is a time limit.



Basic orienteering skills



Orienting the Map

1. Ensure North on your map matches North on your compass.
1. Line up the map to match the features you see.

We will learn this outdoors!



Folding/Thumbing the Map

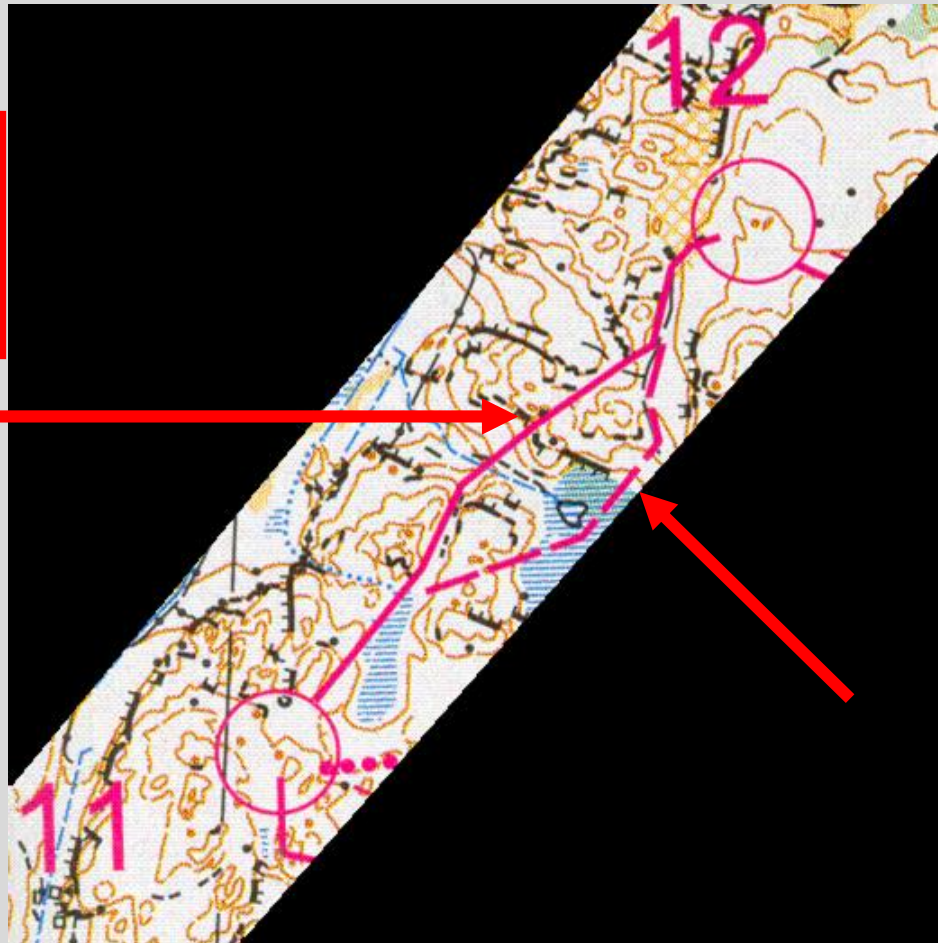
- Fold the map parallel to the direction of travel.
- Move your thumb as your position changes.



Route Choice

The route from one control to the next is up to the orienteer.

Run over
the hills...



Or
through
the
marsh !

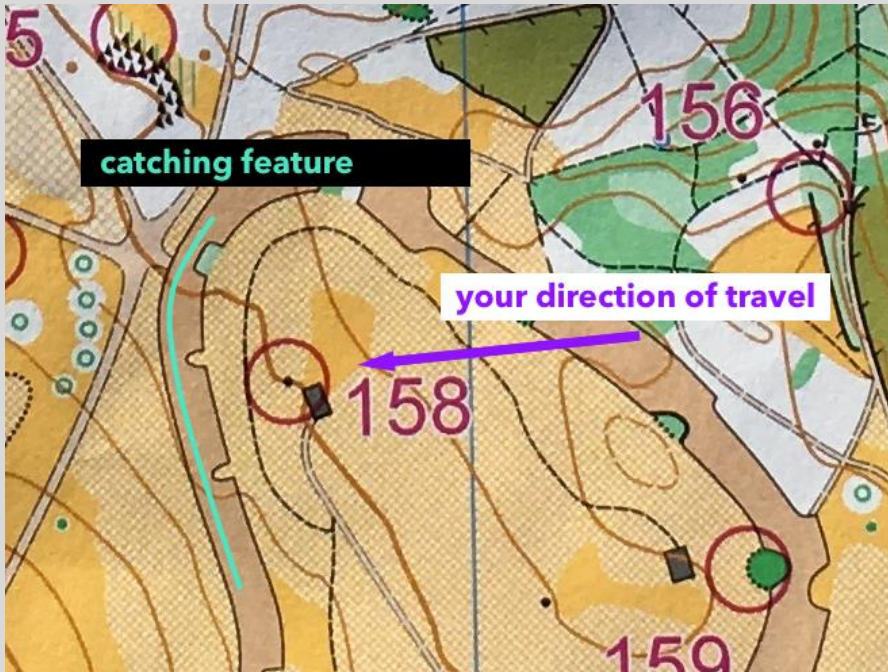
Using “handrails”: Linear Features



Using straight line features to get to where you want to go . It will aid you in navigation:

- Path
- Fence line
- Power line
- Streams or
- Vegetation boundary

Catching features



- A **Big** feature behind your control which indicates that you might have missed it

Recap : Basic Map Reading

- Always keep the map oriented and plan ahead for your next control
- Always stay in contact with the map.
- Constantly take note of features on the map, and make sure you can identify them in the landscape around you, and vice-versa.
- Navigate along linear features such as trails, streams, fences, and vegetation boundaries.



Additional resources:

- ORIENTEERING
SAFETY BROCHURE
- LIVING SMART WITH WILDLIFE
BROCHURE
- AOA RISK MANAGMENT POLICY
- CONCUSSION BASICS
- SAFE SPORT ENVIROMENT

Visit our website for
any safety related
questions:

<https://www.orienteeringsalberta.ca/safety-in-orienteeing.html>

Safety recommendations

Safety rules of orienteering events

1. **Strictly observe all event specific rules, cautions and advice.**
2. **Carry a whistle. The emergency signal is three blasts.**
3. **You must abandon your course if you hear a distress whistle and must help participants in need.**
4. **Always return to registration at the end of the event and sign out!**

WHAT TO DO IF YOU FEEL DISORIENTED

Stop!
Stay calm and think



See if you can track back to your last control or use safety bearing



If you're lost STAY in one place somewhere visible



Blow your whistle



DON'T PANIC HELP IS COMING !

Safety recommendations while on a course

- Stop immediately if you become injured. Running 'through the pain' will only make your injury worse. Return to the start area and seek medical treatment for all injuries.
- Stop and relocate if uncertain of your location, (track back to the last point that you were certain about your location). Choose a safer route to return.
- **If you're lost or hurt stay still and blow the distress call (three whistle blows) until help arrives.**
- In case of an overdue person, the organizers will initiate a search. You can help by following the directions of the organizers.



Things that you can control !

- Choose the activity based on your ability: newcomers should start with a beginners' course and progress gradually. Warm up thoroughly before orienteering.
- To avoid tripping and falling, look up from the map and familiarize yourself with the terrain before you start running. Adjust your running speed to terrain difficulty. Practise reading the map while running in terrain.
- Wear appropriate clothes to cover skin and consider wearing eye protection. Make sure your shoes are comfortable and give good support.
- Adjust to weather conditions by dressing suitably for the temperature and weather. Drink plenty of water. In case of overheating find shade and stop and rest; cool your body with wet clothes.
- Exercise regularly to keep yourself in adequate physical condition for your activity.

Safety recommendations



Things that you can't control but can be prepared for !

- **In case of sudden bad weather (stormy weather) return to start if it is safe to do so.**
- **In case of heavy rain stay above river beds**, dry rock beds and steep hills to avoid flash floods or mud slides.
- **In case of lightning** avoid high places and large open spaces. If a thunderstorm happens, it is best to head to shelter (e.g. your car or building). If that is not possible, find low ground, (e.g. find a depression, crouch down, body tucked in a ball. Avoid lone trees and rocky outcrops or ledges



Things that you can't control but can be prepared for!

- **In wildfire situation:** try to leave the area moving away from the fire. Choose a downhill route (but stay out of canyons) to avoid smoke and be aware of wind direction which may blow the fire and smoke towards you. If fire is coming near, try to find a wet marsh or lake and stay in the water. If no water body is nearby go to an area clear of vegetation (or already burnt down), a ditch or depression, lie face down, and cover your body with dirt.

SURVIVE A WILDFIRE INFOGRAPHIC



Safety rules & recommendations



Safety recommendations

How to Avoid and Manage Encounters

Avoid Encounters

Do not approach or feed wildlife. This could lead to human injury and/or destruction of the animal.

Ways to avoid wildlife:

- Make lots of noise to alert animals of your presence (e.g. talk loudly, sing or shout);
- Travel in groups;
- Walk pets on leash;
- Be aware of your surroundings and recognize signs (tracks/scat) of wildlife;
- Respect area warnings and closures;
- Leave the area if you see or smell a dead animal; and
- Carry bear spray and know how to use it.

Handling an Encounter

When handled calmly and appropriately, most wildlife encounters end without injury to humans or wildlife.

- **STOP—gather your group together!**
- **NEVER RUN!**
- If the animal is unaware of your presence, quietly go back the way you came.
- If the animal is aware of your presence, act non-threatening—talk calmly and back away slowly.
- Prepare to use your bear spray.

In a defensive encounter a bear may feel threatened by your presence if you:

1. Are too close to the bear or its cubs;
2. Are too close to its food (e.g. a carcass, berry patch); or
3. Surprised the bear (it didn't hear you coming).

Be non-threatening—stay calm and back away slowly.

- **NEVER RUN!**
- If the bear comes within range, use your bear spray!
- If the bear makes contact, **play dead**.
- If the attack continues it may have shifted to a non-defensive (i.e. predatory) attack. In this case fight back (see below).

A non-defensive approach by a bear, cougar, coyote or wolf is when the animal has time to leave, but still approaches you.

- **NEVER RUN!**
- Intimidate the animal—act big and loud.
- If wildlife comes within range, use your bear spray!
- If the animal makes contact, **fight back**. Attack the eyes and nose.

For more information on handling encounters visit: wildsmart.ca



Penny Lawless

Carry Bear Spray

- Bear spray has been proven to be effective at deterring attacks from black and grizzly bears.
- Bear spray may also be used to deter other animals such as elk, wolves, cougars and coyotes.
- Learn to use your bear spray and carry it with you when you recreate outdoors.
- Carry your bear spray in an easily accessible spot, preferably attached to your body by a holster or sling. Do not carry bear spray inside your backpack!
- Carry bear spray even in winter. Keep it warm to ensure its effectiveness.
- Check the expiry date on your bear spray. Replace after expiration or use.
- Take the time to read the directions on your bear spray, as different brands have different specifications.

For more information watch the 'How to properly use bear spray' video at wildsmart.ca/bearspray



Amar Athwal

Pets

- Pets should be kept on leash and under your control everywhere in the Bow Valley except in designated dog off leash areas.
- It is not uncommon for off leash pets to come into conflict with wildlife.

Relocating - staying safe

If you are disoriented

- Stop!!!!
- Orient the map to the North
- Try to match the features on the map to the terrain around you.
- Try to determine where you could you have gone since your **last known location**.
- **Return to the last place of known location** or bail out to a linear feature (road , power line, stream et) which takes you back safe.

WHAT TO DO IF YOU FEEL DISORIENTED

Stop!
Stay calm and
think



See if you can
Track back to you
last control or
use safety
bearing



If you're lost **STAY**
in one place
somewhere visible



Blow your
whistle



DON'T PANIC HELP IS COMING !

Quiz:

What is your route from start (triangle) to finish (double circle) will look like? You are going

Puzzle Number: 1



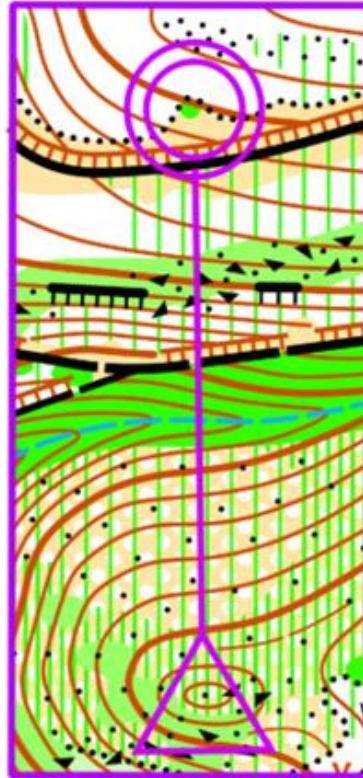
Up

Down

Up then Down

Down then Up

Puzzle Number: 5



Up

Down

Up then Down

Down then Up

Why orienteer?



Enjoy the outdoors

Challenge yourself physically and mentally



Gain navigational skills



Suitable for all ages

Alone or in a group



As competitive as you want



Where can you try it?

- Calgary Orienteering Club:FWOC
- SOGO Adventure Running
- Alberta Orienteering



Outreach info: orienteeringalberta.ca

Calgary Orienteering Club: orienteeringcalgary.ca

Sogo Adventure Running: sogoadventurerunning.com

Social Media: @OrienteeringAB



What to expect at a local club event?



- <https://www.youtube.com/watch?v=1rF5SSa2908>

Contact

info@orienteeringalbera.ca



Alberta
Orienteering

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