



Scientist

Silega Expedition™



Role in Silega Expedition

Main objective:

You want to study the impact of high altitude on the human brain and body.

Personal information:

You don't have previous experience in climbing, but you like sports.

You have developed the habit of jogging every day so you are in good physical shape. You want to win an award for your scientific report on Everest some day.

You did your homework and prepared a detailed investigation about Everest, discovering some very useful information.

Route preference:

You would prefer to take the well-known route.

Specific information:

It is important to carefully study all information related to the impact of climate on the team while on the High Mountain.

You have calculated that over the last 10 years, there has been an average of 5 to 7 stormy days during May. A single major storm usually hits the Himalayas each year and could last from 3 to 5 days. It is entirely possible that the same pattern will be repeated this year. Usually after a storm there is a window of good climate for at least one week.

You know that Unknown Zones are unlikely to impact the team's health. Actually, if your team acts carefully, snowy weather will not impact your health at all.

You know there is a 90% probability that an Unknown Zone is safe, unless it is near a Hazardous Zone. You also know that Dangerous Zones can cost you time, health, or additional oxygen.

You just read in a newspaper about a recently-introduced weather satellite system which can predict the climate 7 days ahead with high precision.

You did some research and verified that this system really works.

Responsibilities:

Take notes about what happens to the team during the expedition, as well as documenting the team members' behavior with the change of altitude.



Rules

Welcome to Silega Expedition™

Here you will find a summary of the rules. If you have questions or doubts, don't hesitate to ask the facilitator.

Goal:

Your team is competing for a prize offered by the eccentric millionaire Richard Cash. Your goal is to arrive at the top of the world – the peak of Everest – and win as many points as possible. The team with the best score wins.

Timing:

You have 31 days available in which to arrive on Everest and come back safely. The expedition starts at Katmandu but on day 31 you should be back in Base Camp, not in Katmandu!

Scoring:

100 points – For the first team that arrives at Everest
Rescue Mission - subtract points for each rescue mission (200 if the rescue mission was conducted before day 10; 400 - between days 11 and 20; 600 – after that)

For each climber that you have on Everest you earn accumulated points as shown below:

For example, if 3 climbers from your team reach Everest, you will get 600 points (150 + 200 + 250)

Climbers	1	2	3	4	5	6	7	8	9	10
Points per person	150	200	250	300	350	400	450	500	550	600



Additional points: You can earn extra points depending on the route you take.

Routes:

There are 4 possible routes for climbing Everest. You and your team must decide which one to take before leaving Base Camp. You are allowed to change routes anytime, but this would require that you go back to Base Camp again and start your journey over, taking the new route.

The route that you use to actually reach Everest is the one taken into consideration for the additional route points.

The Blue Route is the only one that is obligatory for all of the teams, and all teams should move simultaneously following the facilitator's instructions until they reach Base Camp. After Base Camp teams are on their own, have full responsibility for their movements, and manage their own risk.

Movements:

Each day (unless there is a storm) your team has the following options: ascend, descend, or stay at the same location.

In case of a storm, teams cannot move and have to stay at the same location while the storm lasts. The only exception would be if a rescue mission were required.

NOTE: All team movements are limited to 1 position per day.

Map:

On the map you can find the following zones and areas:

Katmandu – This is the biggest city and capital of Nepal, starting point for your expedition.

Lukla (2,860 m) – A small city.

Namche Bazaar (3,440 m) – A village in Nepal in the District of Khumbu. This is the main commercial center for the region.



Tengboche (3,867 m) – A village in Nepal near the biggest Buddhist monastery in the region.

Dingboche (4,530 m) – A village in Nepal, a traditional stop for all Everest expeditions.

Base Camp – BC (5,380 m) – From here participants start climbing toward Everest.

High Mountain (HM) – The area after leaving Base Camp and before arriving at the Death Zone (DZ). Here you are exposed to the impact of climate. You will need 1 to 2 Oxygen Units per team per day depending on climate (please check the chart for additional information).

Death Zone (DZ) - The area above 8,000 meters. A human being cannot fully adapt to this altitude and it is only possible to survive here for a limited time period because of the difficult weather conditions and lack of oxygen in the atmosphere.

While in the Death Zone you will require 2 to 4 Oxygen Units per team per day. Your team will lose from 1 to 3 Health Units per day. Please also check the “Storms” section of this guide.

Camps – These are temporary constructions installed by sherpas. Your team can stay there and be protected from storms. If several teams are at the same Camp during a storm, they can all use the same shelter.

Hazardous Zone (HZ) – Potentially dangerous zones. Your team should make the best decisions to overcome the obstacles that you find in such Zones,

Unknown Zone (UZ) – Areas that have not been explored this year; thus the exact condition of these parts of the route is unknown.

Everest – The goal at the end of each route. As it is impossible for a human being to spend the night on top of the mountain, teams should stay at the last position of each route while one climber per day attempts to go to the top.

For each day that you stay at that last position on the map, a different climber can climb to the summit of Everest.



Climate

On the Himalayas there are three weather conditions:

Normal Weather. With wind speed up to 25m/s, without snow. Excellent conditions for walking.

Snowy Weather. With wind speed up to 25m/s, with snow. Teams can move normally, but the mountain may become more dangerous.

Stormy Weather. With wind speed exceeding 25 m/s, with or without snow. Teams cannot move unless a Rescue Mission is necessary.

Variables

Each day teams should update their table mats based on the following variables:

Zone or area on map	Oxygen O2			Health			Comments
	Normal Weather	Snowy Weather	Stormy Weather	Normal Weather	Snowy Weather	Stormy Weather	
Blue Route	-	-	-	-	-	-	All teams move together
Base Camp	-	-	-	+1 for every 2 days that you spend here			
High Mountain	1	1	2	-	-	-3*	During storms teams cannot move unless a Rescue Mission is required.
Death Zone	2	2	4	-1	-1	-1/-3*	
* - 3 Health Units if your team is not in a camp or storm-resistant tent.							



Oxygen – After leaving Base Camp your team will require from 1 to 4 Oxygen Units per day. Important - all consumption is in UNITS per TEAM, not per team member! Please make the necessary efforts to supply your team with enough oxygen for the expedition.

Health – You start with 8 out of 10 possible units. Each day spent in the Death Zone will “cost” your team one Health Unit. If you reach a level of only 4 Health Units, you will have to start descending immediately. If you lose one more Unit and have only 3 Health Units, a Rescue Mission will be organized and your team will be brought down to Base Camp on that same day.

Team Survey - Each day you should conduct a small survey of the participants.

Equipment

Your team is provided with the basic equipment necessary to climb Everest (please check the attached list for details).

You have an additional budget of \$50,000 available for the following:

- Oxygen – you can purchase Oxygen Units
- Additional Equipment - you can purchase additional equipment according to the price list attached



ROUTE COMPARISON

Route	Stops	Camps	Risk of accidents	Fatal accidents	Extra points for using that route	Famous climbers who used that route
B	7	2	9%	36	120	John McGoy
C	5	1	13%	13	180	Philip Willson
D	6	2	10%	19	140	Sven Goranson
E	9	3	6%	16	160	Anatoli Lipeev

Equipment that your team already has:

Climbing equipment

- Ice axe
- Crampons
- Climbing harness
- Carabiners
- Rappel device
- Prusiks (rope knots)

Footwear

- Double plastic boots
- Woolen socks

Clothing

- Light underwear
- Parka (leather jacket)
- Jacket with synthetic insulation
- Hard shell jacket with hood
- Hard shell trousers

Hand wear

- Synthetic gloves with a hard shell
- Leather gloves
- Camping gloves



Headwear

- Lantern
- Sunglasses
- Goggles for skiing
- Balaclava (woolen hood)
- Synthetic hat
- Bandanas
- Neoprene face mask



Other equipment

- Expedition backpack
- Trekking backpack
- 2-ways radios for communication with Base Camp
- Sleeping bag
- Professional compass
- Inflatable pillow
- Cooking equipment
- Sun block
- Lip screen (protection for lips)
- Bottles with water
- Trash bags
- Knives
- Thermos
- First Aid Kit: aspirin, moleskin, Molefoam™, waterproof first aid tape, athletic tape, bandages
- Digital amateur camera



Calculating your final score:

	Your result
<p>Were you the first team to climb Everest today?</p> <p>If yes, please add 100 points.</p>	+
<p>How many alpinists climbed Everest?</p> <p>Here is a list of the accumulated points that you will receive according to the number of alpinists from your team who climbed Everest:</p> <p>1 - 150 2 - 350 3 - 600 4 - 900 5 - 1250 6 - 1650 7 - 2100 8 - 2600 9 - 3150 10 - 3750</p>	+
<p>Did you use a Rescue Mission?</p> <p>In this case, please subtract points for each rescue mission (200 if the rescue mission was conducted before day 10; 400 - between days 11 and 20; 600 – after that)</p>	-
<p>Bonus for route</p> <p>Add points depending on the route you took to climb Everest and come back (B - 120, C - 180, D - 140, E - 160)</p>	+
<p>Final result (Sum of points)</p>	=
<p>Final result (%)</p>	

Convert points into %

Points	0 or less	1 - 50	51 - 150	151 - 300	301 - 350	351 - 400	401 - 450	451 - 500	501 - 550	551 - 600
%	0	5	10	15	20	25	30	35	40	45
601 - 650	651 - 700	701 - 750	751 - 800	801 - 900	901 - 1000	1001 - 1100	1101 - 1200	1201 - 1300	1301 - 1800	1801 +
50	55	60	65	70	75	80	85	90	95	100