



Breaking the Cycle Education – The Andes, The Altiplano & The Atacama Expedition

Lesson Plan GOOD HEALTH & WELL BEING

Time Allocation

45 mins



Age Range

10-14

“Exploring is the driving force behind humankind.” Kate Leeming

Learning Outcomes:

- To determine what is considered good health.
- To find ways to practice good health.
- To explore and remind about the importance of looking after yourself

<https://www.globalgoals.org/>

LEARN

This lesson focuses on SDG # 3 Good Health & Well Being

What is this goal all about?

<http://bit.ly/2VsbnpV> Global Goals

Goal- aims to ensure healthy lives and promote wellbeing for all at all ages



Kate’s altitude bicycle expedition of 3500km+ from Cusco, Peru, across the Altiplano in Bolivia and Chile and the Argentinian Puna de Atacama to Ojos del Salado, the world's highest volcano is in preparation for her South Pole Expedition. Negotiating soft, unstable surfaces requires immense core strength and concentration. Different techniques are used compared with cycling on regular paved and gravel surfaces.

Why altitude training for Breaking the Cycle South Pole: Antarctica is the highest, driest windiest continent on Earth, where the altitude on the plateau is around 3000m. In the extreme cold, this will feel more like 4000m. Learning how to cope with such conditions in the Andes will be important physical and mental preparation.



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THINK

Activity: Read together as a class this information about the altitude of the mountains.

Altitude means height above the ground or above the sea level.

Altitudes above 1,500 metres (4,900 ft) start to affect humans. Humans cannot live in very high altitudes above 5,500–6,000 metres (18,000–19,700 ft). Atmospheric pressure decreases at high altitudes. This affects humans because there is less oxygen to breathe. This can cause illnesses such as altitude sickness, high altitude pulmonary edema (fluid in the lungs), and high-altitude cerebral edema (fluid in the brain, causing headaches and confusion).

The human body can deal with high altitude by breathing faster, having a higher heart rate, and changing the blood itself to have more red blood cells that can carry oxygen. This can take days or weeks to happen. This works for people who live in the high mountains, and mountain climbers. For climbers, this is called acclimatization. Pilots and other people who go quickly to high altitudes need to be in a space suit, pressure suit, or inside a pressurized airplane, so the air is still the same as at the ground. In preparation Kate is sleeping in an altitude tent. An altitude tent is a sealed tent used to simulate a higher altitude with reduced oxygen.

Expedition Health & Well Being. Kate's health and wellbeing are both vital for the success of each expedition. Altitude Distances: The total distance from Cusco to Ojos del Salado is about 3500km. Kate aims to cover between 500km and 600km a week, including extreme altitude climbs up Acotango, Aucanquilcha (or Ollague), Uturuncu and Ojos del Salado volcanoes.

Altitude: The average altitude of the Altiplano is 3750m though Kate's route will take in several climbs in excess of 5000m+. The percentage of oxygen in the air at sea level is 20.9%; on the Altiplano it is around 13% and at 6000m it is just below 10%. This will add significantly to Kate's workload.

Question: What things do you think are vital for Kate to remain healthy and happy whilst she is riding in such difficult terrain? How do you think she would overcome challenges? Discuss.

Kate's Expedition through The Andes & Altiplano involves using her character strengths of perseverance, determination, bravery and judgement.

Good Health & Wellbeing is vital for a successful expedition.

Question: What are your character strengths that help you each day?



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Activity: Critical Thinking:

Take a look at this list of [Character Strengths](#).

What do you think would be Kate's top five character strengths?

What makes you say that?

Ask students to explain and justify their reasoning.

As a class, can you decide unanimously on Kates top ten Character strengths.



FEEL:

Ask the students to Create a poster with their name largely written in the middle.

Each student walks around the classroom and writes a character strength down that is representative of their understanding of that student. This thoughtful activity makes a wonderful classroom display.

ACT:

What can you do to help work towards this goal?

Walk, run, ride to school.

It's good for your mind, body and environment.

Are you a Goalkeeper? <https://wllgoalkeeperme.globalgoals.org/>

Conclusion Activity:

Add yourself to the map on the Home Page <http://www.breakingthecycle.education>