



Lesson Plan

INNOVATION

Time Allocation

60 mins



Age Range

10-14

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

Learning Outcomes:

- To understand innovation
- To begin to make connections between the Global Goals.
- To explore innovation for change

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

LEARN

This lesson focuses on SDG # 9 Industry, Innovation & Infrastructure

What is this goal all about?

<http://bit.ly/2H7wMLf> Global Goals



Goal- – Build resilient infrastructure, promote inclusive & sustainable industrialisation and foster innovation.

THINK

Kate Leeming has one major piece of equipment- the bike. Kate’s bike has been purpose built to be an AWD bike. Power is transferred to both the rear & front wheels when she pedals. The result is better traction and mobility on snow & variable terrain. Watch this short clip on the innovation of the AWD Fat Bike. <https://youtu.be/pACop8Pjr74> Christini Fat Bikes

ACTIVITY:

What does Innovation mean?

Write this question on board or chart- ask students to add their own definitions

Work as a class to come up with a general definition that can be understandable and usable for these lessons. Display definition in a prominent place in classroom.



Breaking the Cycle Education – Namibia Expedition

A bike is an innovation that is universal. It is a form of transport that relies on human power- nothing else

ACTIVITY:

Watch this video on Kate's expedition to Greenland- note what equipment she uses to manage the extreme climate. Look closely at the bike- what modifications/ innovations have been changed. Research the innovation and development of the bike – be prepared to share your findings.

<https://youtu.be/RnYtzVvw5p0> Greenland Expedition

FEEL:

ACTIVITY:

It's time to innovate- design your own ideal bike- think of terrain you will be riding on- what is its purpose/ function to get you from a to be- style setter, speed , carrying things add extra components – let your imagination run wild. Create it like a blueprint a technology drawing with all parts clearly labelled. It has to rely on pedal power.

ACT:

- Donate your old bike to a charity who repair them and send them to be developing countries
- Ride a bike- it's a great innovation
- Modify your own bike- what could you add to your bike

Conclusion Activity:



Invite students to share their bike Innovations

<https://flipgrid.com/23090d8f>

Add yourself to the map on the Home Page

<http://www.breakingthecycle.education>