



Breaking the cycle: Education – A project brief

"Exploration is the driving force behind mankind." - Kate Leeming

Welcome to the Breaking the Cycle: Education Project! We are excited to see you here. This project is inspired by and the brainchild of <u>Dr. Kate Leeming</u> who's a motivating adventurer. She has cycled the equivalent distance of twice around the world at the Equator; including the entire continent of Africa from West to East, Antarctica, and Siberia; released an amazing movie called <u>Njinga</u>; and, written a couple of books. She's all set to take on an awe-inspiring project of being the first person

to cycle across Antarctica via the South Pole.

The Breaking the Cycle: Education project will bring together students from across the world to utilize Kate's journey as a source of innovation and creativity. Our goal is that the project will support students to lead their schools, communities, countries and the world in making change.

To help make the project a reality, Kate has formed a partnership with experiential education experts, JUMP! Foundation. JUMP! envisions a world in which young people are inspired, empowered and engaged through experiential education so that future generations are better equipped and motivated to contribute to a just and sustainable world.

We have developed two key modules - one focusing on upper primary and the other on lower secondary age groups. There are multiple focus areas such as Civics and Citizenship, Critical and Creative Thinking, Global Issues, and Designing for Innovation. The modules are highly flexible allowing for teachers and students to pick and choose elements that would work best for their classroom. There are opportunities for students to connect directly with Kate on her journeys via video calling. The United Nations Global Goals for Sustainable Development are embedded in the program enabling all students to be inventors, innovators, and campaigners. The students will be challenged to create projects that address key global issues around them and put into action their classroom explorations of following the expedition.



Breaking the Cycle - Education project is about taking action and inspiring others – leaders and change makers, of this generation and the next – to explore and find their passion and to aim high to achieve it. The project will serve to build on Kate's commitment to contribute towards ending extreme poverty and education for all.





Breaking the cycle using Exploration

Unit Name:	Exploring the world inspired by Dr Kate Leeming	Year Level:	YEAR 5 or 6
Developed By:	Aditi Agrawal @ JUMP! Foundation	Time Frame:	8-10 WEEKS

Context: Why are we doing this?

The Breaking the Cycle Education project will bring together students from across the world to utilize Kate's journey as a source of innovation and creativity. Our goal is that the project will support students to lead their schools, communities, countries and the world in making change. The unit hopes to inculcate a can-do attitude in students following from Kate's stories of resilience and grit and enabling them to learn more about the areas that are part of Kate's 2018 Expeditions. The unit will allow educators and students to pose real life questions, working together to generate scenarios, and calls to actions that can change the world.

STAGE 1: DESIRED RESULTS

Transfer: What are the long-term accomplishments that students should be able to do with knowledge and skill, on their own?

Engage students in real-world projects, which gives them the opportunity to develop key skills such as critical thinking, self-directed learning, creativity, problem solving, communication and collaboration. The unit uses tools from Experiential Education, Design Thinking, and is inspired from Kate Leeming's Journeys.

Key Understandings: Students will understand that	Essential Questions:	Cross Curricular Bridges:
U1. Grit, planning, and resilience can go a long way towards achieving our goals by feeling inspired from Kate's journeys. U2. We can together work to achieve our Global Goals by 2030.	EQ1. Who is Kate Leeming? Why do we need to know about her? What can we learn from her journeys? EQ2. How important is it to be passionate about making a change locally, nationally or globally? EQ3. What are the Global Goals? What can we do to help?	 Sustainability Ethical Thinking Interculturalism Exploration
Knowledge: Students will know	Skills: Students will be able to	Global Citizenship Lens:
K1. the different parts of the change making process K2. the components of Kate's journey	S1. work together in groups and develop projects that solve a problem in their life/communities S2. use exploration tools, conduct research, and make pitches S3. talk about Kate Leeming and her journeys	 Personal Growth & Identity Inquiry & Action Mindset Community Impact & Social Enterprise





What sequence of teaching and learning experiences will equip students to engage with and develop their understanding of the unit?

BLOCK 1: Introduction to unit & G	TIME: 120 Mins			
INTENTION: Students get introduced to the entire unit and start to explore the UN Global Goals for Sustainable Development GUIDING QUESTIONS: What are the Global Goals? Why do they matter? What are some issues that I care about?				
ACTIVITY	TIME	PURPOSE/STRUCTURE	MATERIALS REQUIRED	
Introduction	5	Students are introduced to the purpose of the unit		
Global Issues Sticky Storm	15	Pass out sticky notes and have each student jot down current world issues (one on each sticky note). After they've come up with some, have them place sticky notes on the whiteboard/flipchart. Debrief: How was that experience for you? Easy or difficult? What global issues did you come up with?	Sticky Notes Markers Flipchart	
Intro Video to Global Goals	5	We are going to learn a bit more about the Global Goals through an introductory animation/video. Watch the World's Largest Lesson Global Goals intro video • https://vimeo.com/138852758 Debrief on the main goals of the Global Goals (protect the planet, fight inequality, and end extreme poverty)	Intro Video to Global Goals (https://vimeo.com/13885 2758)	
Global Goals Card Pass Edition	15	Hand mini Global Goals cards to students. Each student raises their hand, finds a partner, gives them a high five, and then as a pair, students have a discussion on what they think the two Global Goals they have are all about. After they feel they are done, they switch cards, raise their hands, find a new partner, and discuss the Global Goals they have. Debrief: • What was that experience like?	Mini Global Goals cards (Download Global Goals from here and cut up the goals)	

• Did you learn anything new about the Global Goals?





		Did any of your partners share an opinion on the goals that you hadn't thought of? ***During activity, other facilitator places larger Global Goals cards on classroom desks (6 clusters of GG's; 5 groups of 3 & 1 group of 2)	
Global Goals & Issues Exploration	45		Print Global Goals and student ipads
Global Goals Priority Diamond	20	Spread out print outs of global goals and split students into small groups. Tell each group that they must now prioritize and arrange the goals in a diamond shape ranking them on their importance. Ask students: Should everyone's diamond look the same? Why or why not? Participants should end up realizing how interconnected the goals are and that all goals are important. (Teachers can upload the different priority diamonds on Breaking the cycle: education website)	Print Global Goals
Closing	5	Next week we will be focusing on learning more about Dr Kate Leeming - someone who is using their passion to drive change for the Global Goals!	





BLOCK 2: Introduction to Dr. Kate Leeming and Breaking the cycle: education TIME: 70 Mins **INTENTION:** Students get introduced to Dr Kate Leeming and her exploration of the world. **GUIDING QUESTIONS:** Who is Kate Leeming? Why do we need to know about her? What can we learn from her? **ACTIVITY** TIME PURPOSE/STRUCTURE **MATERIALS REQUIRED** KL Presentation - Overall story 15 Students watch Dr Kate Leeming introduce herself and her presentation Kate Leeming https://www.voutube.com/watch?v=H1OFDh9tevY&feature=voutu.be Introduction Video and Powerpoint https://www.youtube.com (Teachers can reach out to Dr Kate Leeming to request for a school presentation for /watch?v=H1OFDh9tevY their class using the Breaking the cycle: education website) &feature=voutu.be Sticky Notes More questions for Kate using KWL 15 What do you know about Kate and her passion to create awareness about Sustainable Development? What questions do you need to ask to clarify your understanding? **KWL Chart!** Examples: 1. What surprised you? 2. What are you curious about? Why do you think she wants to explore or go on these adventures? (Students can share a list of these questions and answers on Breaking the cycle: education website) Where's Kate travelling to in 2018? Using a world Map, have students mark the cities, countries Kate will be training at http://www.breakingthecy 10 in 2018. As part of the inquiry process students will adapt the inquiry research cle.education/

awareness of reaching one of the Global Goals.

question and call to action to one of these countries and how they can create





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		1. Baja Peninsula Mexico 3. Skeleton Coast Namibia 3. Skeleton Coast Namibia 4. Fippe Fiver Australia Proposed expeditions for 2018 The Expeditions Remind students that we will come back to this map!	
Wonderwall for the 7 areas	30	Students take some time to independently research the 7 areas that Kate will be travelling to! Students create a Wonderwall of all the questions they would like to ask Kate, what they want to investigate further about the countries she will be training in, and what they want to know about how being an explorer can bring about social change. Display the Wonderwall somewhere in your classroom. (Teachers can upload their Wonderwalls on Breaking the cycle: education website and connect with other teachers for their Wonderwalls)	Teacher's Resource - https://www.youtube.com /watch?v=PVMIp0TmEpA





BLOCK 3: Exploring with Dr Kate Leeming TIME: 75 Mins

INTENTION: To help students understand the value, grit, and resilience involved in exploration

GUIDING QUESTIONS: Why do we explore? Who were the first explorers? What do these explorers feel, think, say, and do?

GOIDING GOLD HONG. Willy do we explore: who were the hist explorers: what do these explorers leet, think, say, and do:				
ACTIVITY	TIME	PURPOSE/STRUCTURE	MATERIALS REQUIRED	
What is exploration?	20	Purpose: Students reflect on what drives people to explore. Step 1: The students are asked to think about the above quotes. "Exploration is really the essence of the human spirit" – Frank Borman As a class share everyone's responses write on the board – perhaps create a poster. Step 2: Students are asked "What drives people to explore?" In small groups students share their thoughts on the above question. Each group is to select their one favourite response on What drives people to explore and share with the class. Each response is added to the board or poster. Brief for teachers: Frank Boram is a retired United States Air Force pilot, aeronautical engineer, test pilot, and NASA astronaut, best remembered as the Commander of Apollo 8, the first mission to fly around the Moon, making him, along with crew mates Jim Lovell and Bill Anders, the first of only 24 humans to do so.	https://www.youtube.com/watch?v=a7sEoEvT8l8 Flipchart with the Design Thinking Process steps	
Empathy Map for Dr Kate Leeming	25	What might the explorer feel, think, hear, say and do? Students create an empathy map thinking about explorers, especially Dr Kate Leeming. Ask students to make an empathy map on their notebooks/on A4 page papers and fill up the four areas as best they can. Make a giant one together as a class using inputs from everyone "Exploration is the driving force of humankind" – Kate Leeming	SAY What are some open and an area of the second and area of the sec	





		Kate Leeming - Cycled the equivalent distance of twice around the world at the Equator. Her three main achievements include Breaking the Cycle in Africa Expedition (a ten month, 22,040km journey across Africa), and the 25,000km Great Australian Cycle Expedition (GRACE) and the 13,400km Trans-Siberian Cycle Expedition. (Encourage students to upload their empathy map online on the Breaking the cycle: education website)	https://dschool- old.stanford.edu/wp- content/themes/dschool/ method-cards/empathy- map.pdf
Reflect back to Kate Leeming's adventures	30	As an explorer, can you think about how Kate would be designing her adventure of cycling across Antarctica. In pairs of 2, can you brainstorm about the challenges that she'd need to solve for? Examples - food, bicycle design, funds for the project, etc. What questions do you still have? Make a list as a class and get them to Dr Kate for her inputs and ideas! (Students can share the list on Breaking the cycle: education website and ask for Dr Kate to respond to some of the big ones!)	Flipcharts Markers





BLOCK 4: Superheroes working on the Global Goals

TIME: 90 Mins

INTENTION: Exploration of superheroes and learning more about the Global Goals enabling all students to feel encouraged to be inventors, innovators, and campaigners to be active changemakers and global citizens

GUIDING QUESTIONS: What can we do for the Global Goals? How can we make the world a more sustainable place?

ACTIVITY	TIME	PURPOSE/STRUCTURE	MATERIALS REQUIRED
Superheroes are real!	15	 Talk about superheroes - Who's your favourite superheroine/superhero? Draw or represent him/her and write down three or four qualities that you associate with them. Have students share in the big group their drawings and a few of the qualities. The other facilitator to write down on whiteboard qualities that are transferable to people. Debrief - Can you think of one person in your life who has some of these qualities? So, do you think superheroes are real? Show of hands - Are you a superhero? 	A4 paper, White board
Heroes for Change Comic	10	Students review this comic - https://www.yumpu.com/en/document/view/53587356/heroes-for-change Debrief about the comic - talk about - • What did you learn? • What do you want to do now?	
Invent, Innovate or Campaign	15	If we want to create change - what can we do using our creativity? What are your other superpowers? • https://www.youtube.com/watch?v=Qx0AVjtdq_Q Debrief on: What is the difference between invent, innovate and campaign? Discuss the three ways of creating change on the following four parameters • Meaning • Actions • Skills needed	AV





		When should you choose this style	
Kate's Map review and Group Formation	15	Encourage students to review the map and the Wonderwall. Students can then divide themselves on the basis of the country that they are most curious about - encourage them to use the wwww.breakingthecycle.education website to look up the different expeditions. You should end up with 7 teams for the 7 countries - aim for group sizes of 3 to 4 students. Students choose one of the countries Kate will train in that they would like to inquire about - Mexico, Iceland, Namibia, Finke River, Bolivia, India or Antarctica (Teachers can update their map with names of students who are working on that region on the Breaking the cycle: education website)	http://www.breakingthecycle.education-overview/





BLOCK 5: Investigations into the world!

INTENTION: Enable students to gather more information about the countries that they are inquiring about, to find its joys and challenges **GUIDING QUESTIONS:** How can we explore our wide world using technology today? How can we lead "good" interviews? How can we make "good" questions?

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ACTIVITY	TIME	PURPOSE/STRUCTURE	MATERIALS REQUIRED	
Let's explore!	60	Purpose: As explorers students think about the country they have selected in their groups (in the last session) and find more information about it. Students work on the country they are inquiring about and start to do some basic research on the same. What are some basic facts about this country? • History of the country • Description of country's geography • Where is the country located? (Continent) • What are some famous landforms? (Mountains, lakes, rivers) • Description of Current Government and Rulers: • What is the type of government? What does this mean? How is it doing on some key parameters in comparison to where you are in the world (https://www.ifitweremyhome.com/)? What are the top global goals that this country prioritises? Why?		
Interview friends from around the world	30	Students get prepared to connect with students of the country they are researching. Remember to help students from Antarctica find someone to talk to! It could be another explore/ Dr Kate/ students could be redistributed into other groups for this module! Step 1: Create a List of Questions Step 2: Make questions using these interview tips - • Ask why and encourage stories • Be specific– "Tell me about the last time you" • Pay attention to nonverbal cues • Allow for silence		





		 Don't suggest answers to your questions Ask open and neutral questions Make questions short Ask one question at a time Be prepared to record answers (ask for permission) Manage sensitive information Example (for Iceland): What are you worried about for Iceland? What do you love about your life in Iceland? What would you change about your life in Iceland? 	
Interview Practice	30	Ask students to do some role play activities in their groups so as to practice their interview skills - Bad/Good Interview role play - Teachers can introduce open and closed questions - Ask open ended questions - Ask closed questions	
Make new friends	60	Students get connected to their pals via <i>Breaking the cycle: education website</i> or via Mystery Skype or any other tool of the teacher's choice and interview them about the problems!	
Organise Research and Choose the Key Problem	15	Students reflect on their learnings after talking to their pals and synthesise their research work. This leads to students selecting one key problem that they would like to address in the area. For example, students might choose to focus on lack of access to electricity in Namibian schools or Global Warming in Antarctica. Help students dream big at this stage and choose an area that they feel passionately about! (Teachers can share the key problems on Breaking the cycle: education website)	3-2-1 TILLA RUTURE 3 TINGS I LEARNED LYDEA EXADEMG. 1 2 MYTENSSTING FACTS. 1 1 1 GUESTKON I STRL. HAVE.





BLOCK 6: Design Thinking - Ideation

TIME: 90 Mins

INTENTION: Teams begin to think about crazy ideas that might help solve their big, hairy problems. Encourage students to be create, innovative, and challenge the norms.

GUIDING QUESTIONS: How might we solve these big, hairy challenges? What gets our creativity flowing?

ACTIVITY	TIME	PURPOSE/STRUCTURE	MATERIALS REQUIRED
Yes, BUT vs. Yes, AND	15	 Enable students to start brainstorming without any boundaries! Have students form pairs or small groups (3-4) and tell them they are going to plan a trip to Antarctica. The first round, every time someone proposes an idea, someone else should answer with "Yes, BUT(reason why that is not going to work)". On the second round, the response should be "Yes, AND (add something that builds on the first idea)". Debrief about the group energy and what kind of ideas came out in each round. 	
Forced Connections	15	 This exercise involves bringing together ideas that serve very different needs or interests to form a new concept. Each person writes down 2 objects on 2 sticky notes, and put it in a bag. (Example - banana, pen, bottle, chair, etc.) In 5 minutes, ask team members to pick two items (Example: pen and bottle) and explore different ways they can be connected. (Example: A bottle should always come with a pen so that you can write your name on the bottle and declare that it's yours! This will prevent thefts.) This technique can produce some silly results, but it's ultimately a helpful way of getting your team out of a creative rut. (Teachers and students can share some funny forced connections on Breaking the cycle: education website) 	Sticky Notes Pens





Global Goals vision (Individual Exercise)	10	Put on the Global Goals Vision Glasses - • Use the sentence starter I see a world • Explain in your own words what the world should look like in 2030 I if we all follow the global goals.	Glasses; Notebook
Global Goals Idea brainstorm (in groups)	10	Why do you care? What do you care about? Choose your track - invent, innovate or campaign Choose your global goal Go for quantity over quality Get 50+ ideas in 7 minutes! GO!!	Sticky notes
Distribute 7	30	Help students think of creative and best ideas in their project teams. Give all students the prompt - How can we solve the big problems that we are working on in our groups? Step 1: Write down your 3+ best ideas on your own Reflection Questions: How will your ideas involve the whole school or community? How will it address the problem? Step 2: In your country groups -> First round: After reflecting, put all your ideas in the box and pick up someone else's idea Share that idea with a partner and together allot 7 points total to the ideas (7 and 0, 6 and 1, 5 and 2). Do another round. Add the points and arrange them in descending order on the ground Pick up another idea from the box and repeat Round 1 After three rounds, take the top two points cards and discuss them in your group and finally, pick one idea that will solve the problem! (Teachers and students can share their top ideas on Breaking the cycle: education website)	Sticky Notes Pens





TIME: 135 Mins

BLOCK 7: Building and Testing

INTENTION: Teams begin to refine their ideas into prototype solutions in a process of designing, presenting, getting feedback and redesigning

GUIDING QUESTIONS: What do we need to change in our idea so as to make it better suited to the needs of our community? What feedback can our peers provide

us?

us!				
ACTIVITY	TIME	PURPOSE/STRUCTURE	MATERIALS REQUIRED	
Introduction to "Shark Tank"	15	Teachers should ask students if they watch "Shark Tank". What is the purpose of "Shark Tank"? How do you become a "shark"? What is a "pitch"? What are the people hoping to accomplish by appearing on the show "Shark Tank?"	Flipchart Markers	
Pitch creation Time	30	Purpose: Student decide on what action they are going to take to make a change. Here they can choose to invent something new, innovate on an existing process, or campaign for change. Students create a pitch that covers how will their idea/call to action help solve the problem. Students link their action to the global goals using the GG website. Challenge students to prepare what they will need or can create as a prototype to physically convince their audience to make a change. Tell students they need to think about both the idea and their pitch. Their ideas will be judged upon: Originality: Do you think anyone else in the class has thought of this idea? Is this idea already been created and found in stores? Marketability: Will people like using this product? Would many people want to purchase it? Would you like to purchase and use it? Feasibility: How realistic is the idea? Could it be easily made without spending a large amount of money? Helpfulness: Does this idea help to solve a problem? Example: They can make change by campaigning for the need to recycle in the school based on what they have learnt from the problem of garbage disposal in	Markers Flipcharts Pens	





		India	
Marketplace	30	Purpose: To provide participants with another opportunity to practice pitching their ideas to the community to improve their solution and presentation Groups set up "stalls" in the "marketplace." Each group has 2 people who stay at their station and tell others about their project. Everyone else walks around, visits different projects, ask questions, and give feedback. Halfway through, have 2 other people from each group to stay so that the 2 people who were staying in the group can now go around and look at different projects. (Teachers and students can share photos and videos of the Marketplace on Breaking the cycle: education website)	Flipcharts Sticky Notes Markers
Final design Time and Practice Pitches	60	Students use the feedback they have received from all their peers and their learning from seeing other people's projects to make revisions to their project plans, prototypes, and pitches. Encourage students who get done early to practice their pitches in front of a mirror/each other!	Flipcharts Sticky Notes Markers





BLOCK 8: Shark Tank Finale TIME: 180 Mins

INTENTION: Teams finalise their solutions and present it to everyone in a Shark Tank! **GUIDING QUESTIONS:** What have we learnt from the process? What feedback can our peers provide us?

ACTIVITY	TIME	PURPOSE/STRUCTURE	MATERIALS REQUIRED	
Final, final design Time	30	Final revisions to project plans, prototypes, and pitches		
Shark Tank!	120	Purpose: To share the prototype solutions with the community and pitch their projects to the panel, other students, parents, and the wider community. Request local entrepreneurs in the region to be on the panel if possible. Each group will have 10 minutes to present their proposed solutions and there will be 10 minutes of questions from the audience and the panel. The panel will evaluate using the feedback form. (Teachers can video the presentations and share them on Breaking the cycle: education website)	Shark Tank Feedback Form	
Reflect on the Project	30	What skills have we learnt from this process about ourselves and from Dr Kate Leeming? What are we still curious about? What else can we do to learn more about Global Issues? What actions can we take? (Teachers can share student reflections on Breaking the cycle: education website)		