

THREATENED HABITATS

of the African Savanna

YEAR 8
Teacher Lesson Plans



GLOBAL GEOGRAPHICAL ISSUE



**INTERNATIONAL
ANTI POACHING
FOUNDATION**

Dear Students and Teachers

This activity book has been developed by teachers with a passion to share their resources and give support to other teachers around the world in delivering global geographical issues such as “threatened habitats” in a fun and methodical way. While being in Africa I have noticed that many schools and teachers work tirelessly with limited access to resources and at many times even lack the essential basics such as access to basic textbooks. With this in mind, this activity book has been designed for you and your students to enjoy the opportunity and discover the magic of the rhinoceros.

To many around the world, the rhinoceros isn't the most desirable looking animal but it has a long lost ancient significance to the tribes of Africa who worshipped the rhino majesty with golden relics of the ancient creature to be buried alongside their most honoured of African kings. To them, the rhino carries mystical powers of their ancestors.

But today, the rhinoceros horn is the most sought after wildlife body part in the world and is the world's 3rd largest criminal activity used to fund terrorist activities, for use in traditional medicine and as ornaments by the wealthy to show their wealth and status. But the horn is the heart of the rhinoceros and the African tribes and people. To kill it and any wildlife in the killers path irrespective of the damage their poaching does to the African culture, tourism businesses and supporting businesses which create employment, jobs and incomes for locals to overcome their poverty and the environment is heartbreaking.

The theme of this activity book is to highlight the link between Globalisation, Global Inequality and why and how global inequality threatens the habitats of all African (and global) wildlife, especially the rhinoceros in the African savannah. With prior learning of Globalisation, Global Inequality and the trauma of slum life and poverty you may see the wisdom of undertaking 'The Philanthropy Challenge' to support numerous charities locally, regionally, domestically and internationally to counter the cycle of slums, poverty and inequality from your classroom seat. By participating in the activities in your course and this book it will remind you we are all custodians of this world and can help each other and all living things in it to enjoy their days on this magnificent planet we call Earth. Together, we can return once again the honour and value of the rhinoceros as a very rare and special feature of the African landscape and promote more fulfilling and prosperous lives for all.

The activity book will show you where the situation of the rhinoceros has become precarious and all but extinct through the actions of foreign syndicates and non-action of the modern world. You will discover where the rhinoceros now lives, why they are disappearing, how humans have been under-valuing these majestic creatures for years and how you can reclaim what African ancestors always knew: the reverence that is the rhinoceros.

In this activity book you will face the perils of what it means to be a 'game ranger on patrol' in the plight to restore Africa's symbol of strength and honour. You will venture into the many dangers of a game ranger who lives to protect the rhinoceros from poaching.

In speaking with various people of Africa, including children and teenagers, I have found that they believe they have a special role to play in protecting this unique majestic creature from being destroyed and all the world's wildlife from poachers. I hope you do too.

Your Sincerely



Damien Mander (International Anti-Poaching Foundation) (IAPF CEO & Founder)



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ASSESSMENT

TASK 2

Your assessment task will be about a geographical issue threatening a habitat you are passionate about. Habitats can include savannas, grasslands, deserts, rainforests, polar lands or coastal areas. These habitats (and the species within them) are being threatened by either: poaching, logging, deforestation, overfishing or human induced climate change. The reasons for each threat are complex and varied. Your job is to research a species under threat, where and why it's threatened, how it is happening and which group organisations are trying to solve the issue.

Thanks for studying this geographical issue.

GEOGRAPHY, YEAR 8

SAMPLE ASSESSMENT TASK

Topic	Geographical Issues (Threatened Habitats)	Date Due	Term 2/4, Week 6
Type	Research and Development	Weighting	TBA
Task	Active Citizenship	Marks	100
Big Question	Does being an active citizen improve geographical issues?	Report	A – E Grade
Background	<p>In Term 2 (4) students study the Topic of Geographical Issues.</p> <p>Geographical Issues consist of the following things: <i>threatened habitats, deforestation, over-fishing, pollution, land degradation, indigenous people, human rights, self-determination, energy use, water quality</i> to name a few. These issues occur because of globalisation and urbanisation sparked by trans-national corporations (TNCs) and our widespread global consumerism. To counter this, there are many non-government organisations (NGOs) taking action to respond to these issues in order to promote ecological sustainability, conservation and preservation. These NGOs need more active citizens.</p> <p>To promote sustainability, INDIVIDUALS must take action as an active citizen.</p>		
Task description and steps	<ol style="list-style-type: none"> 1. Pick ONE wildlife species under threat you care about (# see Task Tips below) 2. Create ONE of the following to help the world understand your issue: <ul style="list-style-type: none"> • App or Online Game (eg Minecraft edu) • Song (written lyrics and music) • Poetry (at least 6 versus) (must have artwork background) • Children Storybook (Year 6 Primary School) • Teenager Storybook (ie choose your own adventure book) (eg "Ranger in Danger" series) • Social Media posts (at least 20 posts) • or another activity (which must be approved by the teacher before any commencement) 3. Within your creation: <ol style="list-style-type: none"> a. Introduce the: <ul style="list-style-type: none"> • Nature of the Issue (that is, what is happening?) b. Demonstrate the following about your issue: <ul style="list-style-type: none"> • Spatial Dimension • Ecological Dimension • Groups making a positive difference to address the issue 		
# Task Tips	<p>(Yes, you can do an African wildlife species, such as the rhino. This IAPF Activity Book will be an in-depth case study of the African rhino. Use a variety of websites to research your issue. Do NOT use Wikipedia in geography. Start your assessment task immediately. Commit to at least ONE HOUR per week to get this task completed. The average time taken to complete this task is 5-8 hours. Get samples and ideas from Google research, Youtube and books such as Sean Willmore's 'Ranger in Danger' series which is a 'choose your own adventure' book for students. Brainstorm ideas with your friends and family.)</p>		

CHAPTER 1

INTRODUCTION

This chapter introduces students to Australian ex-military Special Forces Commando, Sniper and Navy Clearance Diver Damien Mander's "International Anti-Poaching Foundation" (IAPF) and their role in the African Savanna.

Thanks for studying this geographical issue.

DATE:	TOPIC: Geographical Issue (Threatened Habitats)			
TIME:	FOCUS: International Anti-Poaching Foundation (IAPF), CEO Damien Mander			
INSTRUCTOR(S):	STUDENTS WILL BE ENGAGED VIA:			
	<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis
	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input type="checkbox"/> Analysis
	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input checked="" type="checkbox"/> Identification	<input type="checkbox"/> Experiments
	<input type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology
	<input type="checkbox"/> Lecture		<input type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles
	<input type="checkbox"/> Stations		<input type="checkbox"/> Games	<input type="checkbox"/> OTHER:

OBJECTIVE: Students will learn about: the IAPF (International Anti-Poaching Foundation) and its CEO Damien Mander as a successful a group which is responding to Africa's threatened habitats. The students will navigate the IAPF website: www.iapf.org

PREPARATION: Familiarise yourself with the IAPF:

1. IAPF website www.iapf.org/
2. Watch the Youtube clip: '60 Minutes Damien's War'
3. Read the information below 'About the IAPF and Damien Mander'.
4. Use the IAPF School Video Blogs (<http://goo.gl/aTDJ3a>) created for teachers to introduce the lessons in this activity book.

5 minutes	Instructor: Settle the class as per normal (ie have a regular structure to each lesson eg: stand or sit in a certain place, have your roll ready to mark, check the seating plan, go through classroom standards of behaviour). Introduce the lesson: 'Today's lesson, we will introduce the geographical issue of threatened habitats and use Africa as our case study. We will study the biggest threat to Africa's habitats - wildlife poaching (especially, the rhino) and the role the International Anti Poaching Foundation (IAPF) play in delivering anti-poaching skills and training to game rangers.	Student Activity Book (Page 7)
5 minutes	Instructor: Play the IAPF School Video Blog 1, Part 1 (or use the URL: https://goo.gl/AbaOBa).	IAPF Video Blog 1, Part 1
15 minutes	Instructor: Play the 60 Minutes Damien's War youtube clip (15 MINUTES).	Youtube: 60 Minutes Damien's War
5 minutes	Instructor: Ask students to open up to Activity 1. Play the IAPF School Video Blog 1, Part II.	IAPF Video Blog 1, Part II
15 minutes	Instructor: Ask students to use the IAPF website (www.iapf.org) to help them answer questions 1 - 8.	www.iapf.org

About the IAPF and Damien Mander

In Africa, some of Australia's ex-military personnel such as Damien Mander (ex-navy Clearance Diver and Special Forces Commando) and Steve Dean who served years in Iraq and Afghanistan, finished consecutive tours and moved to Africa to take action in the conservation and protection of Africa's wildlife becoming further endangered by poachers.

Damien set up a 'not for profit organisation' called the I.A.P.F. (International Anti-Poaching Foundation) after he had spent three years on the frontlines in the Iraq war (where he trained Iraq police) and Afghanistan to finally finish in 2008. He travelled to Africa for a holiday, witnessed the wildlife situation and decided to help out the local game rangers. Damien realised the African Game Rangers were overwhelmed by the sophistication of the highly armed and well equipped poachers and he realised they lacked the necessary education and skills to combat poachers. He saw the local game rangers passion for the environment and wildlife and was compelled to share his knowledge. He knew he would not be returning to live in Australia and that Africa would be his new home. Damien realised there was more to life than doing things for himself and getting the newest gadget. In his eyes, helping the rangers protect the voiceless animals of the world and 'Mother Nature' was a worthy cause.

Since 2009, he has shared his education and training in navigation, patrolling, tracking, cover and concealment, ambush, search and arrest techniques and unarmed combat training skills to help the rangers conserve wildlife from poachers. He is currently engaged in coordinating and fighting government bureaucracy to attain the first ever Anti-Poaching Game Ranger training qualification & career pathway - supported by an online training academy - and drone technology. This initiative is essential to counter the fragmented nature and isolation of anti-poaching units across Africa, the low wages and low morale issues facing game rangers and the lack of operation support and skills.

For the everyday person, Damien is a gentle giant with a big heart and plenty of know-how to conserve, train and protect game rangers in their roles. He is highly motivated to inspire people to reawake and realise humans are not the top of the food chain, but one specie of many making up Mother Nature. Damien has been filmed by 60 Minutes, The Project, Aljazeera, Jack Hanna, National Geographic, Africa Geographic, Forbes Africa & presented at TEDx, USA Obama Advisory Council, UN, ABC radio and many more.

ACTIVITY 1 ANSWERS

There are many groups in Australia and Africa which take positive action in improving the threatened habitats within Africa from poaching while also improving the local community life. These groups are called NGO's (Non Government Organisations) and NPO's (Not for Profit Organisations).

One group is the International Anti-Poaching Foundation (IAPF) setup by Australian ex-Military Special Forces Commando, Sniper and Navy Clearance Diver Damien Mander.

INSTRUCTIONS

Google and watch via Youtube: 60 Minutes "Damien's War" then, School Video Blog 1, Part II to answer the following questions.

1. What do the initials I.A.P.F stand for?

International Anti Poaching Foundation

2. Who is the I.A.P.F. CEO/Founder?

Damien Mander (Australian Ex-Defence Forces - Special Forces Commando & Navy Clearance Diver)

3. What is the I.A.P.F. CEO's background?

Damien's background is the Australian Defence Forces where he was a Navy Clearance Diver and then became a Special Forces Commando. He served 3 years in Iraq training the local police forces.

4. When did the I.A.P.F. begin?

Damien began the IAPF in 2009 after finishing with an honourable discharge from the Australian Defence Forces. He travelled to Africa to rest before going home to Australia.

5. Why did the I.A.P.F. begin?

Damien was devastated by the amount and brutality of wildlife poaching and the game rangers limited skills used to combat this issue. Damien had military skills from the ADF & knew his training and knowledge could help the local African game rangers protect the habitat from poaching.

6. In which African country was the I.A.P.F. set up?

Zimbabwe

7. What has the I.A.P.F. achieved so far?

The I.A.P.F. has trained hundreds of Africans as Game Rangers. They offer locals the opportunity to be selected to get free training and education for 3-6 months at the academy. They have setup training facilities in Zimbabwe, South Africa and Mozambique. They have increased black rhinos by 300% and have developed the first ever online training academy for managers.

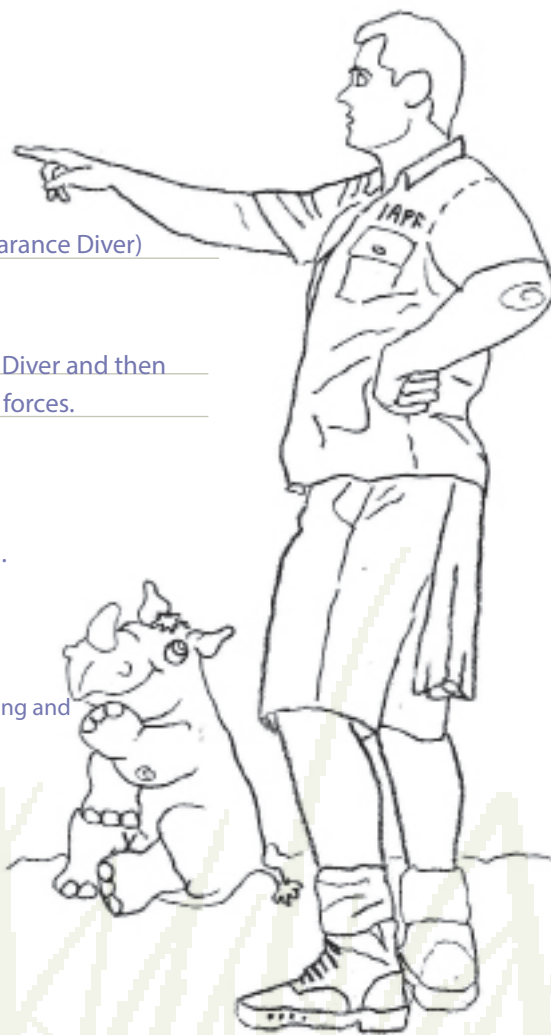
8. What makes the I.A.P.F. so unique and successful?"

The IAPF offers immediate, direct response action for the industry. It delivers industry wide solutions (ie 'free' education to African locals who wish to become game rangers, first ever online academy for remote national parks education and finds rangers jobs in game parks); uses a multi-faceted approach to the issue; uses military training / skills (eg: drone UAV technology, combat training, ambush, search & arrest tactics). Most recently, the IAPF have been addressing governments to approve an Anti-Poaching Game Ranger qualification and online training academy called: Command and Control. It will be an industry first. The IAPF stop the haemorage.

INTRODUCTION

Who is protecting the globally threatened habitats of Africa ?

— Damien Mander (IAPF)

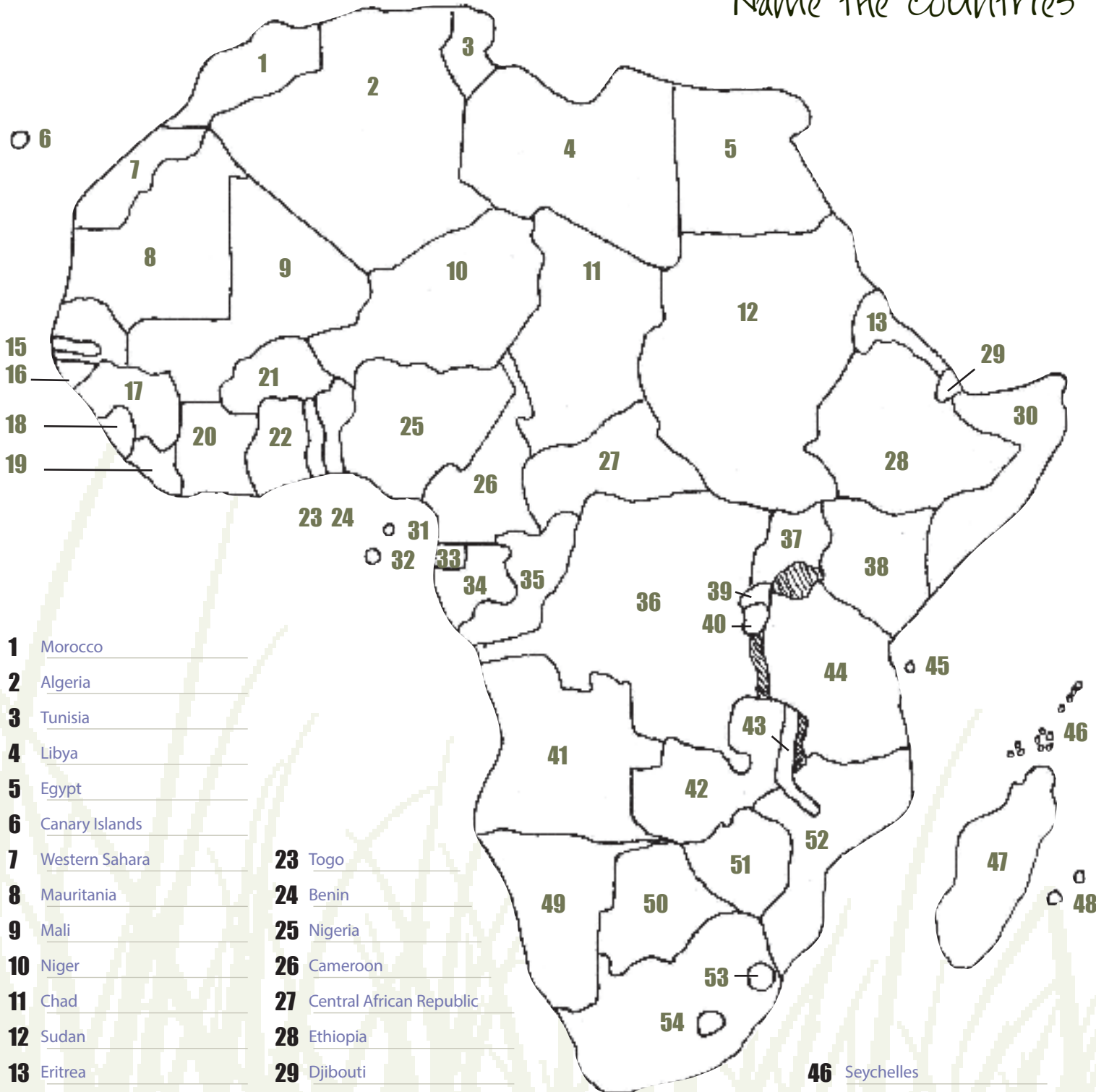


ACTIVITY 2

LESSON PLAN

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)		
TIME:	FOCUS: Atlas mapping skill		
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA:		
	<input checked="" type="checkbox"/> Teacher driven <input type="checkbox"/> Student driven <input type="checkbox"/> Peer Tutoring <input checked="" type="checkbox"/> Discussion <input type="checkbox"/> Lecture <input type="checkbox"/> Stations	<input type="checkbox"/> Individual <input checked="" type="checkbox"/> Pairs <input type="checkbox"/> Groups <input type="checkbox"/> Teams	<input type="checkbox"/> Simulation <input type="checkbox"/> Hands on <input checked="" type="checkbox"/> Identification <input type="checkbox"/> Problem Solving <input type="checkbox"/> Storytelling <input checked="" type="checkbox"/> Games <input type="checkbox"/> Synthesis <input type="checkbox"/> Analysis <input type="checkbox"/> Experiments <input type="checkbox"/> Technology <input type="checkbox"/> Puzzles <input type="checkbox"/> OTHER:
OBJECTIVE(S): Students will learn about: atlases and identifying the countries within the African continent.			
PREPARATION: Before the session, gather a class set of 15 - 30 atlases or clear political maps of Africa for the students to use in order to locate and name each numbered country on the map. Find the political map of Africa (which is, the brightly coloured map of Africa rather than a topographic, brown coloured map). You may need to buy some small prizes or rewards (eg: stickers, lollies, award, stamp and so on).			
TIME	INSTRUCTION/METHODS		MATERIALS
5 minutes	Settle the class as normal and take the roll. <u>Introduce the lesson:</u> Last lesson we introduced the IAPF Damien Mander. In this lesson, we will be using an atlas to identify the names of the African continent.		• Students Activity Book (Page 8)
10 minutes	<u>Instructor:</u> Hand out 15 - 30 atlases, ask students to find the political map of Africa (that is, the one full of colours rather than the brown/orange coloured topographic map). Ask students to turn to page 8 of their activity books. Their task today is to use an atlas and methodically identify and neatly write the names of each country on the African continent. Students are NOT permitted to use the Internet or mobile phones. They can work in pairs. The first 10 people to finish neatly and accurately win a prize (eg: up to you the prize). They have 30 minutes. Their time begins... NOW.		• Class set of 15 - 30 atlases • NO internet or mobile phones permitted
30 minutes	<u>Instructor:</u> Students will be a bit noisy through this task. Walk around the student desks and provide help or clarification. Inform students the RED DOTS (●) indicate the locations of the IAPF in hot poaching spots.		• Answers on next page
10 minutes	<u>Instructor:</u> Choose the best 10 neatest/accurate map work. Hand out prizes.		• prizes
END OF LESSON	Dismissing the class: remember to have the students stand behind their desks, pick up any rubbish and wait quietly until the students stand silently waiting to be dismissed. If they waste your time by still talking, take up their time at recess or lunchtimes or end of the day.		

Name the countries



- 1 Morocco
- 2 Algeria
- 3 Tunisia
- 4 Libya
- 5 Egypt
- 6 Canary Islands
- 7 Western Sahara
- 8 Mauritania
- 9 Mali
- 10 Niger
- 11 Chad
- 12 Sudan
- 13 Eritrea
- 14 Senegal
- 15 The Gambia
- 16 Guinea Bissau
- 17 Guinea
- 18 Sierra Leone
- 19 Liberia
- 20 Ivory Coast
- 21 Burkina
- 22 Ghana

- 23 Togo
- 24 Benin
- 25 Nigeria
- 26 Cameroon
- 27 Central African Republic
- 28 Ethiopia
- 29 Djibouti
- 30 Somalia
- 31 Principe
- 32 San Tome
- 33 Equatorial Guinea
- 34 Gabon
- 35 Congo
- 36 Democratic Republic of the Congo (Zaire)
- 37 Uganda
- 38 Kenya

- 39 Rwanda
- 40 Burundi
- 41 Angola
- 42 Zambia
- 43 Malawi
- 44 Tanzania
- 45 Zanzibar

- 46 Seychelles
- 47 Madagascar
- 48 Mauritius
- 49 Namibia
- 50 Botswana
- 51 Zimbabwe
- 52 Mozambique
- 53 Swaziland
- 54 Lesotho
- 55 South Africa



CHAPTER 2

NATURE OF THE ISSUE

This chapter will demonstrate an overview of the poaching situation across Africa by using tabulated data, bar graphs and calculations of minimums, maximums and averages to set the scene.

Thanks for studying this geographical issue.

ACTIVITY 3

LESSON PLAN

DATE:	TOPICS: Geographical Issue: Threatened Habitats (Rhino Poaching)			
TIME:	FOCUS: The Nature of the Issue (overview)			
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA:			
	<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis
	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input type="checkbox"/> Analysis
	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input checked="" type="checkbox"/> Identification	<input type="checkbox"/> Experiments
	<input type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology
	<input type="checkbox"/> Lecture		<input type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles
	<input type="checkbox"/> Stations		<input type="checkbox"/> Games	<input checked="" type="checkbox"/> OTHER: Interpret
OBJECTIVE(S): Students will learn about: the nature of the poaching issue which is threatening African wildlife.				
PREPARATION: Familiarise yourself with this lesson by:				
1. Watching the IAPF School Video Blog 3 (http://goo.gl/aTDJ3a).				
2. Watch the Youtube clip on middle east Jambiyas (https://goo.gl/og4mu8).				
3. You may need to teach students how to calculate: minimums, maximums, averages and how to draw bar graphs.				
4. You may need to bring calculators, lead pencils, 30 orange pencils, 30 black pencils, erasers and rulers to class.				
5 minutes	Instructor: Settle the class by having alphabetical seating plan, get silence, take the roll, inform students of classroom standards. Introduce the lesson: Last lesson, we looked at the countries of Africa and location of the IAPF. In today's lesson you will be using tabulated data to calculate the remaining rhino populations left in Africa (both Black and White) and demonstrate this as a bar graph. Write on the board 'Nature of the Issue' as the heading for this lesson.			• Students Activity Book (Page 9)
10 minutes	Instructor: Play the IAPF's School Video Blog 3 (http://goo.gl/aTDJ3a).			• IAPF School Video Blog 3 (5.58 minutes)
10 minutes	Instructor: Turn to Activity 3 and select students to read through each paragraph. During the paragraph, students will come across 'jambiyas' - there is a video to watch on them (jambiyas video: https://goo.gl/og4mu8) (2.40 minutes). Once watched, continue reading the paragraphs and activity questions.			• Youtube (jambiyas) (2.40min) https://goo.gl/og4mu8
20 minutes	Instructor: Begin the questions: ask students to use calculators to complete the questions. Walk around and help students with their calculations and bar graph. * PLEASE NOTE: Table 2 states "MOZAMBIQUE" as the answer rather than "TANZANIA or MALAWI". The reason for this is that the IAPF offer direct and immediate response to poaching 'hot-spots'. The IAPF are more interested in locations which have a few rhinos left and direct all our resources to that area to train and equip the game rangers in that area. There's no reason to be interested in locations with ZERO.			• calculators • rulers, erasers, lead pencils and coloured pencils
5 minutes	Instructor: Go through the answers.			
END OF LESSON	Instructor: Ask students to stand, check the floor for rubbish, chairs in and dismiss when quiet.			

ADDITIONAL INFORMATION

Why South Africa has more rhinos, than other countries

- South Africa is the wealthiest of the countries presented in the table. They have been able to purchase rhinos and bring them into South Africa. They may have the largest white and black rhino populations in the world yet their black population is extremely low in comparison. This is because white rhinos live in larger group numbers for safety and breed better in confined areas whereas black rhinos are solitary animals and much more susceptible to poaching. In addition, since the 1950s, a man called Dr Ian Player has led many to save the southern white rhino. It has been an ongoing project. Also, it is much easier to own a white rhino than to own a black rhino in South Africa because of legal issues, so therefore white rhino's are more popular.
- Black populations are the lowest out of both species. This is because they live solitary which make them an easier target in hunting and given they are territorial and aggressive the clearance of land for settlement and agriculture has increased their interaction with man. Finally, the confined space left over for the rhino is small and black rhino's breed poorly in confined areas. White rhinos breed better in smaller confined areas.
- Rhino populations in general across African countries are extremely low in comparison to South Africa because South Africa's Dr Ian Player has increased numbers whereas in other countries poaching corruption exists across all levels of government officials. Hence, there is little motivation not to poach.



Across the African continent is the world's 3rd largest criminal activity. It's called "poaching". Poaching is the illegal taking of wildlife, in violation of local, state, federal or international law such as C.I.T.E.S. (Convention on International Trade in Endangered Species of Wildlife Fauna and Flora). Activities considered as poaching include killing an animal protected by C.I.T.E.S., killing out of season, without a license, with a prohibited weapon, or in a prohibited manner such as jacklighting. Poaching is threatening Africa's habitats and wildlife. Poaching is closely linked to slum life, poverty and a way to fund terrorism.

What are TWO types of poaching?

1. Commercial: Commercial poaching is by organised wealthy foreign syndicates or gangs from the Middle East and/or Asia. These wealthy syndicates bribe local officials (eg Judges, Magistrates, Police-Officers, Custom Officials & Governments) to smuggle in illegal weapons such as AK47s, M99 vet darts and poison for poor, uneducated local villagers to use as tools to poach rhino and to smuggle rhino horn back out again. The locals get paid around \$1000 - \$10,000 to do this. They use other tools too such as wire snares, machettes and dogs. The rhino horn sells for about \$100,000 on the illegal black markets. Countries like Yemen use rhino horn for Jambiyas (ie: daggers), jewellery and ornaments (eg: vases); Asian countries like China & Vietnam use rhino horn for their

Traditional Chinese Medicine (TCM) argued to cure headaches, arthritis and fever. Both countries use rhino horn as a status symbol of their wealth. Commercial poaching is the biggest cause of rhino endangerment and habitat threat. (WATCH THE JAMBIYAS VIDEO: <https://goo.gl/og4mu8>) (2 minutes)

2. Subsistence: Many African villagers live in absolute and relative poverty. They live and survive on less than a few dollars a day to buy essentials (eg: food, water, clothing, school fees, housing and hygienic products). Most people in Africa are unemployed and have no income. They survive on their crops and livestock which they eat and trade at local markets. Wildlife often venture through and eat village crops and livestock. Villagers respond by hunting the wildlife for food and bush meat to sell at the local markets. They do this with wire snare traps layed throughout wildlife trails and tracks, spears, machettes, bushfires and dogs.

What has been the result of the poaching?

Since 1900, poaching has caused a fall in rhino numbers from 500,000 (Africa and Asia) to 70,000 by 1970 and the table below shows the numbers of rhinos in the world today.

ACTIVITY / INSTRUCTIONS

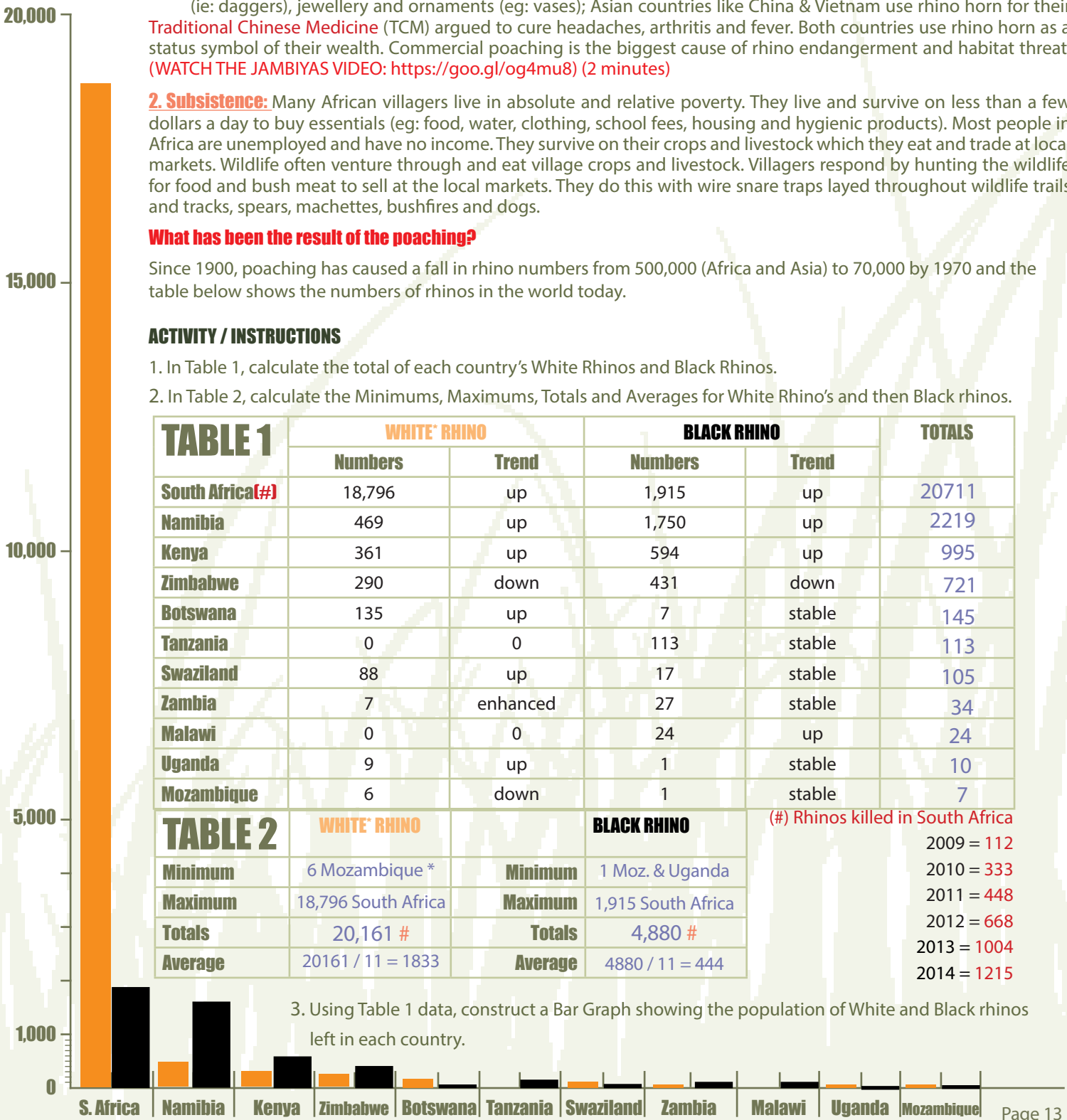
1. In Table 1, calculate the total of each country's White Rhinos and Black Rhinos.
2. In Table 2, calculate the Minimums, Maximums, Totals and Averages for White Rhino's and then Black rhinos.

TABLE 1	WHITE RHINO		BLACK RHINO		TOTALS
	Numbers	Trend	Numbers	Trend	
South Africa(#)	18,796	up	1,915	up	20711
Namibia	469	up	1,750	up	2219
Kenya	361	up	594	up	995
Zimbabwe	290	down	431	down	721
Botswana	135	up	7	stable	145
Tanzania	0	0	113	stable	113
Swaziland	88	up	17	stable	105
Zambia	7	enhanced	27	stable	34
Malawi	0	0	24	up	24
Uganda	9	up	1	stable	10
Mozambique	6	down	1	stable	7

TABLE 2	WHITE* RHINO		BLACK RHINO
Minimum	6 Mozambique *	Minimum	1 Moz. & Uganda
Maximum	18,796 South Africa	Maximum	1,915 South Africa
Totals	20,161 #	Totals	4,880 #
Average	20161 / 11 = 1833	Average	4880 / 11 = 444

(#) Rhinos killed in South Africa
 2009 = 112
 2010 = 333
 2011 = 448
 2012 = 668
 2013 = 1004
 2014 = 1215

3. Using Table 1 data, construct a Bar Graph showing the population of White and Black rhinos left in each country.





3. USING THE PREVIOUS PAGE, ANSWER THE FOLLOWING QUESTIONS:

a) Identify ONE type of poaching. (Tip: name a type of poaching and use it for Q a–d)
COMMERCIAL (other students may pick subsistence)

b) Outline ONE type of poaching. (Tip: name the type of poaching, then generalise it)
COMMERCIAL: poaching is by organised wealthy foreign syndicates or gangs from the Middle East and/or Asia. They use the rhino horn for dagger handles, jewellery, ornaments
, traditional medicine and a way to fund terrorist activities.

c) Explain ONE type of poaching. (Tip: name the type of poaching, then write about WHY and HOW it happens)

COMMERCIAL: poaching is by organised wealthy foreign syndicates or gangs from the Middle East and/or Asia. They use the
rhino horn for dagger handles, jewellery, ornaments , traditional medicine and a way to fund terrorist activities. The Middle East
have a tradition of men showing their wealth and status by using rhino horn in their jambiyas (ie dagger handles) - the newer
the jambiyas the cheaper they are to buy, but the ones with rhino horn and are older can be up to \$1 million. Whereas, the Asian
countries like Vietnam and China use the rhino horn as a key ingredient in their tradtional medicine to cure fevers, headaches
and some claim it cures cancer.

Commercial poaching is carried out by wealthy foreign syndicate gangs which pay poor and low educated locals to risk their
lives breaking and entering the game reserves. The locals use wire snares, machettes, spears, knives, fire, poison, M99 vet darts
and AK47 guns to get the rhino horn. Some poachers are highly armed and proficient in unarmed combat from years of military
training. They break into game parks by short-circuiting electric fences or are let in by corrupt officials.

b) Discuss ONE type of poaching. (Tip: name the type of poaching, then write about its impacts on wildlife (eg food chains, webs), environment (eg soil fertility, vegetation amounts, biodiversity, pollution of air / water).

COMMERCIAL: poaching is by organised wealthy foreign syndicates or gangs from the Middle East and/or Asia. They use the
rhino horn for dagger handles, jewellery, ornaments , traditional medicine and a way to fund terrorist activities. There are many
problems associated with poaching. The first problem is poaching uses wire snares which are left like land mines scattered
througout the savanna. The snares will be triggered by anything which touches it - human, cattle, wildlife - and it tightens as
the animal moves. It is a slow and painful death. Another tool used to poach are fires which are set by poachers to scare the
wildlife into an area where the poacher can ambush and kill the animal. This results in major fire catastrophes as there are no fire
brigades in the savanna to put out the fire. Given the vegetation is usually dry, the fire spreads destroying all vegetation and
crops in its path and kills local villagers. The next tool used by poachers which have severe consequences for Africa's habitats is
the use of poison being poured into river systems. This is done because rhinos need to drink each day and the poison kills them
at the water hole. But the poison also kills every living thing which drinks from the river, including humans and their livestock.
Local villagers need the water for drinking, watering their crops and livestock. Once an animal dies from the poison the carcass is
left to rot and provides secondary deaths to the scavengers which feed off them. Overall, these poaching methods disrupt and
destabilise the savanna food chains and webs, reducing biodiversity needed to maintain a healthy ecosystem and reduces the
soil fertility needed for local villagers to grow crops and feed their livestock. Poaching also destroy future generations.

ACTIVITY 4

LESSON PLAN

DATE:	TOPIC: Geographical Issue (Threatened Habitat) (rhino poaching)			
TIME:	FOCUS: History of Africa (colonisation)			
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA:			
	<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis
	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input type="checkbox"/> Analysis
	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input type="checkbox"/> Identification	<input type="checkbox"/> Experiments
	<input type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology
	<input type="checkbox"/> Lecture	<input checked="" type="checkbox"/> Reflective	<input checked="" type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles
	<input type="checkbox"/> Stations	<input type="checkbox"/> Persuasive	<input type="checkbox"/> Games	<input type="checkbox"/> OTHER:

OBJECTIVE(S): Students will learn about: the events of colonisation which accelerated inequality and transformed African society

PREPARATION: Familiarise yourself with this lesson by:

1. Read Activity 4 'Africa's Plight'
2. Watch the video about Europeans exploitation of Africa: (<http://goo.gl/wJcReK>) (4.10 minutes)
3. Watch the video about the Chinese influence in Africa: (<https://goo.gl/5nN4lh>) (7.36 minutes)
4. Watch the video about "The price of gold: Chinese mining in Ghana" (<https://goo.gl/0cs1PZ>) (14.20 minutes)

TIME	INSTRUCTION/METHODS	MATERIALS
5 minutes	Instructor: Settle the class by having an alphabetical seating plan, take the roll, inform students of classroom standards. Introduce the lesson: In the last few lessons, we've looked at the countries of Africa an overview of poaching. In this lesson, we look at the colonisation of Africa and its legacy today.	• Students Activity Book (Page 12)
25 minutes	<p><u>Instructor:</u> EUROPEAN COLONISATION</p> <p>Inform the students that for them to understand the present situation, they need to look into the past. In the past, globalisation resulted in colonisation of Africa by Europeans and left a legacy of inequality. PLAY the 1st Youtube clip: "A Brief History Of European Colonisation in Africa" (http://goo.gl/wJcReK) (4.10 minutes).</p> <p><u>Instructor:</u> Turn to Activity 4, Africa's plight. Ask students to read each paragraph of Africa's History through to Apatheid. (STOP at the: Asia-African Trade.) Ask students to answer question 1 - 5.</p>	<p>• Youtube (A brief history of European colonisation) http://goo.gl/wJcReK</p> <p>• Answer questions 1-5 only</p>
25 minutes	<p><u>Instructor:</u> ASIA - AFRICAN TRADE</p> <p>Inform the students that the <i>most recent culture</i> transforming Africa is from <i>Asia (China)</i>. Pick a student to read out the ASIA-AFRICA TRADE paragraph of Activity 4.</p> <p><u>Instructor:</u> PLAY the Youtube clip "Chinese Influence in Africa" (https://goo.gl/5nN4lh) (7.36 minutes)</p> <p><u>Instructor:</u> PLAY the Youtube clip "The price of gold: Chinese mining in Ghana" (https://goo.gl/0cs1PZ) (14.20 minutes)</p>	<p>• Youtube clip https://goo.gl/5nN4lh</p> <p>• Youtube clip https://goo.gl/5nN4lh</p>
5 minutes	Dismissing the class: Settle the students, ask them to pack up, pick up any rubbish left on the floor and put into the bin, stand behind their desks quietly. Dismiss the class.	

ACTIVITY 4

To understand Africa's current plight, divisional views on wildlife and resentment towards the international community dictating what Africans can and cannot do with their land and wildlife, it is necessary to look into Africa's past. Read about Africa's history in terms of European invasion, colonisation, slavery and division of Africa's tribal people and the current rise of the Asia-African trade. Then, answer the questions.

AFRICA'S HISTORY: Between 1870 and 1900, Africa faced European imperialist aggression, diplomatic pressures, military invasions and conquest with colonisation. By the 20th century, much of Africa, except Ethiopia and Liberia, had been colonised by European powers (see map below).



There are THREE main factors that led to the push by the Europeans into Africa.

1. The economic push developed in the 19th century when the profitable slave trade collapsed and the European Industrial Revolution boomed. The European boom led to growth in Europe-African trade. Extensive supplies of African goods and natural resources began to be traded in the European market. The Europeans traded goods such as cloth, metals and beads in exchange for African ebony, ivory and gold. Europeans obtained raw materials such as palm oil, cotton, copper, tin and wild rubber. This spurred Europe's scramble, partition and final colonising conquest of Africa.

2. The political push came from within Europe & their power struggle for dominance. Britain, France, Germany, Belgium, Italy, Portugal and Spain were competing for power in Europe. To demonstrate national preeminence they began global territory acquisition, including Africa.

3. The social cause was a result of Europe's rapid industrialisation and resulting major social problems: unemployment, poverty, homelessness & social displacement from rural areas. Social problems developed

AFRICA'S PLIGHT

Africa has a sad past of foreign invasions, tribal land colonisation, enslavement and division of the people

because Europe's new capitalist industries could not absorb all the lower skilled people. To resolve this, Europeans aimed to acquire colonies and export their "surplus population." This led to the establishment of settler-colonies in Algeria, Tunisia, South Africa, Namibia, Angola, Mozambique, Zimbabwe and Zambia.

COLONISATION: Europeans developed treaties in their scramble for Africa to prevent unrest and wars. But it was written without African participation which caused the treaties to be interpreted differently: Europeans believed Africans signed away their sovereignties to European powers; Africans believed the treaties were diplomatic and for commercial friendship to maintain trade relations. But the treaties favoured Europe and defrauded the Africans by imposing and exercising European political authority in African lands.

APARTHEID: In South Africa by 1910, the Union of South Africa started towards 'apartheid' (the racial segregationist policies to maintain white domination over black locals and the land). In 1948, the National Party institutionalised a full apartheid system, which aimed at making black South Africans foreigners in 86 percent of their own country. African rulers did try to resist and organised military to resist the seizure of their lands and the imposition of colonial domination to little avail.

ASIA-AFRICAN TRADE: Despite the economic push from Europe and their strong trade links with Africa, Africa has had for centuries a stronger trade link with Asia (especially China). Fifty-one of Africa's fifty-four countries have diplomatic ties with China, the most recent being South Sudan in 2011. China and Africa have shared comprehensive consensus on major international issues, common interests and a willingness to deepen their cooperation. Frequent high-level reciprocal visits (known by some in Africa as the 'frequent flyer' form of diplomacy) have promoted mutual understanding & trust, & have effectively boosted the development of bilateral ties. More recently Africa's trade with Asia has been growing at an ever faster rate. China & India have had rapidly modernising industries & large middle classes with rising incomes & purchasing power. Asian societies are demanding natural resources, commodities, agricultural goods such as cotton & nontraditional exports such as processed commodities, light manufactured products, household consumer goods, food, & tourism which are labor-intensive from Africa. They are also demanding illegal goods: rhino horn. (Sources: <http://goo.gl/bkCl8> and <http://goo.gl/PK8SgW>)

Questions

1. Which continent colonised Africa?

Europe

2. Identify the THREE factors which caused the colonisation.

Economic, political and social causes.

3. Outline why trade in African ivory and horn began.

Economic: The Europeans had rapid industrialisation and became growingly wealthy. This boom sparked an interest for Europeans to trade with Africa and purchase precious items such as ebony and ivory.

4. Describe the first reason for the colonisation of Africa.

The first reason for colonisation of Africa was economic. In Europe, an economic boom led to growth in European-African trade. The Europeans traded cloth, metals and beads in exchange for African ebony, ivory, gold, palm oil, cotton, tin and rubber. This trade spurred the European scramble and partition of Africa which was no match for Europe's industrial power, resulting in its colonisation.

5. Explain the cause and impact of the colonisation.

Colonisation is the formation of a group of people who seek to control a country and expand their civilisation and culture in the country. For Africa, the colonisation by Europeans was caused by their economic push for Africa's ebony, ivory and gold, palm oil, cotton, tin and rubber; a political push as England, France, Germany, Belgium, Italy and Spain struggled for dominance in Europe resulting in a push for territory; and a social cause from growing social problems of surplus people in unemployment, poverty and homelessness in Europe. The impact of the colonisation was racial segregation and instability resulting in apartheid in South Africa and overall, significant inequality between the cultures and tribes.

6. Discuss ONE positive and ONE negative of Africa trading with Asian economies.

Some argue Asia (ie China) has had a positive influence because of large financial investment being put into Africa's mining and railway industry. However many others argue it is negative because mining is: capital intensive rather than labour intensive therefore not creating jobs for African locals; the mining excretes acid toxins which are not being treated and therefore are contaminating Africa's fresh river systems; mining explosions are killing the locals as they lack training and protective garments for workers; low pay for African workers; corrupt government officials keeping the money earned from the China-Africa trade; and wildlife species being killed in between to sell on illegal Asian markets.

CHAPTER 3

PERSPECTIVES

This chapter will demonstrate the complexity of the poaching issue because there are different opinions and views about wildlife. Some view wildlife as vermon, others as magnificent, and others a trophy for financial and status gains.

Thanks for studying this geographical issue.

ACTIVITY 5

LESSON PLAN

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)			
TIME:	FOCUS: Perspectives, Views and Opinions on Africa's Wildlife			
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA:			
	<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis
	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input checked="" type="checkbox"/> Analysis
	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input type="checkbox"/> Identification	<input type="checkbox"/> Experiments
	<input type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology
	<input type="checkbox"/> Lecture	<input type="checkbox"/> Reflective	<input type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles
	<input type="checkbox"/> Stations	<input checked="" type="checkbox"/> Persuasive	<input type="checkbox"/> Games	<input type="checkbox"/> OTHER:
OBJECTIVE(S): Students will learn about: the different and complex array of perspectives and opinions on wildlife in Africa and is central to this geographical issue of 'threatened habitats'.				
PREPARATION: Familiarise yourself with this lesson by:				
1. Watching the IAPF school video blog 6 (https://goo.gl/QNfp0X) (5 minutes)				
2. Watching the Youtube clip "Anti-poaching Programs Creating Jobs" (https://goo.gl/C30QBy) (3.39 minutes)				
3. Watching the TEDx talk on legalising the rhino horn trade (https://goo.gl/TQgrQR) (14minutes)				
4. Watching the news clip of South African breeders (https://goo.gl/Gkxjrf) (2 minutes)				
5. Read the <i>Background Information</i> below.				
5 minutes	Instructor: Settle the class as per normal (ie have a regular structure to each lesson eg: be in a certain place or seat, have your roll ready to mark and check the seating plan, go through classroom standards of behaviour). Introduce the lesson: Today's lesson, you will consider the variety of views and opinions of Africa's wildlife. You will find, not everyone likes the wildlife.			• Students Activity Book (Page 15)
10 minutes	Instructor: Goto the IAPF website (www.iapf.org) and click on the following tabs: Education, then School Video Blogs, then Blog 6: Activity 18 - Perspectives) or use the URL: https://goo.gl/QNfp0X <u>Play Blog 6: Activity 18 - Perspectives</u> In this video blog, IAPF CEO Damien Mander will introduce the information for this activity. While the video plays, the students need to be filling in the worksheet boxes. Consider pausing the video for students to get precise information on each perspective.			• IAPF website - School Video Blog - Blog 6
20 minutes	Instructor: Ask students to complete the perspective boxes with notes about each. In the background play a few clips such as: For the Farmers / Conservationists: watch the clips: - Called: Anti-poaching programs creating jobs (https://goo.gl/C30QBy) (3.39 minutes) - Called: South African Breeders Ask Court To End Rhino Horn Trade Ban (https://goo.gl/Gkxjrf) (2 minutes) - Called: We have to legalise trade in rhino horn (TEDx Johannesburg) (https://goo.gl/TQgrQR) (14 minutes)			• youtube (clips about villagers thinking of poaching, farmers wanting the CITEIS ban lifted)
15 minutes	Instructor: Get students to write a response to the question: <i>Discuss which perspective is correct?</i>			• Lead pencil • Eraser
END OF LESSON	Instructor: To dismiss the class, stand students behind their desks, wait for quiet, ask them to pick up any rubbish from around their desks.			

BACKGROUND INFORMATION

C.I.T.E.S. is the Convention on International Trade in Endangered Species of Wild Fauna and Flora & is an international agreement between governments. Its aim is to ensure international trade in wild animal and plant specimens does not threaten their survival. In 1977 C.I.T.E.S. banned rhino horn trade globally. Any sale of rhino horn became illegal, globally. Rhino numbers were about 500,000 at the beginning of the 20th century, it fell to approximately 70,000 (1970) and is now less than 24,000 (2015). In 1989, elephant ivory tusk trade was banned. For elephants, their population was once 3-5 million, it is now less than 20% (under 500,000 left).

ACTIVITY 5 ANSWERS

As you have come to understand, African habitats are being threatened by poaching. Despite poaching being a criminal act, there are still a variety of differing perspectives, opinions and views around wildlife poaching, whether wildlife is a pest or should be protected for future generations and whether legalised rhino farming would stop the poaching endangering many species.

Watch the IAPF Video Blog 6 and discuss the various perspectives surrounding wildlife & poaching, then fill in the boxes below. When you are finished, answer the question: *which perspective is correct?*

Watch the IAPF School Video Blog 6

PERSPECTIVES

What are the different opinions, views and perspectives about wildlife and poachers?

Conservationists/Game Rangers

Their perspective is that wildlife is important to the food chains and webs needed to maintain the biodiversity of an ecosystem and should be protected for future generations. They like wildlife and enjoy its presence in nature. Many bond with the wildlife and see their personalities. Some think the CITES ban on rhino horn trading should be lifted to save the rhino from extinction.

African Local Businesses

Their perspective is that wildlife is important to the tourism industry. 1 in 13 people are employed in the tourism industry. They need the BIG 5 (if they are poached, then tourists will stop using their business, locals employed will lose their jobs and income). Poaching destroys hospitality, retail, cafes, hotels, tour guides, taxi's and airport jobs.

* African Farmers & Villagers

African farmers (of wildlife) perspective is that poaching is wrong but LIFT THE BAN. Wildlife farming provide income for their families. However, villagers perspective is that wildlife is a pest and vermin. They struggle with the wildlife, it eats their crops, kills their livestock, hurt their family and eat vegetation their livestock need. Villagers are poor & desperate to survive.

Global Governments

Their perspective is that wildlife & the environment are not important to the economy. For example, Australia, only 5% of money goes towards wildlife or environmental charity whereas, religion gets 35%. Environmental concerns are not cared about whereas, governments approve & support transnational corporations, mining conglomerates destroying the Earth we rely on.

Tourists

Their perspective is that wildlife is amazing and should be protected. They want to travel & see them in their natural environment, WITH the horn. They think poaching is wrong because it destroys the tourism industry. But they don't understand the struggle behind the scene. They buy souvenirs from vendors with animal skin, fur, hair, shells & upload social media posts with where they saw endangered species and talk with locals at pubs about where they've been (they could be poachers).

Asian / Middle East Markets

Their perspective is that wildlife is important to their traditions and culture. In Asia, wildlife body parts are used in traditional medicine industry. They have used wildlife body parts in TCM for centuries and it cures ailments. It's used as a status symbol of wealth, it's used for show on mantles, ornaments and dagger handles. It's tradition.

Sport Hunters

Their perspective is that wildlife is for hunting. It is a very contentious issue with pictures on Facebook of hunters posing in front of elephants, lions and kudu's they've killed. They pay huge amounts of money to go into Africa and hunt and kill the wildlife. There are fewer airlines permitting the return of the wildlife carcass trophy to the hunters home. They believe it's natural & their right.

International Community/Foreigners

Their perspective is that wildlife is important for future generations and want to support the work of conservation groups. They volunteer their time or donate money to causes they care about and want to help. Some are part of the 'Green Army' movement to help the environment. Internationally, they fundraise and hold global marches and petition governments to help protect wildlife. They're dedicated to wildlife.



* AFRICAN FARMERS

TIP: watch the youtube clip: <https://goo.gl/TQgrQR>

TEDx: We have to legalise trade in rhino horn (14minutes)

PERSPECTIVES

Question

1. Discuss which perspective is correct?

[NOTE: Discuss means: what are the reasons FOR / AGAINST something or POSITIVES / NEGATIVES]

[NOTE: Write in full sentences and using a P.E.E.L. writing technique]

SAMPLE ANSWER

There are a number of perspectives about wildlife and the issue of poaching, each has its own positives and / or negatives. The first perspective which is correct is the conservationists. Conservationists are people who advocate or act for the protection and preservation of the environment and wildlife. They are dedicated to stabilising, restoring, preserving and maintaining the biodiversity of an ecosystem. Ecosystems require the functioning of food chains. If rhino and elephants are targeted for their horn / ivory and poachers use cyanide, wire snares and wild fires to kill their targets, the use of such indiscriminate tool kills multiple species within the food chains causing a break down of the overall food web within the savanna. In 2013, ten elephants from Zimbabwe were killed with cyanide in the water system. From this, thirty-nine endangered white-backed vultures were found dead from feeding on the carcasses. Vultures are scavengers and the sight of vultures circling down from high above the African bush is a sure sign of a recent kill and alerts rangers to the presence of poachers. The cyanide remains in the water and soil via the ground water system, when villagers dig a well it can be lined with cyanide which kills villagers, their crops and livestock. So, the conservationist perspective on the importance of wildlife in the ecosystem is correct.

Another reason for the conservationist perspective being correct is the importance of wildlife for the African tourism industry. Tourists are attracted to the rawness of Africa, they include photographers, volunteers, wildlife lovers and environmentalists. Tourism relies on support systems such as cafes, hotels, restaurants, super-markets, tour guides and game rangers. Tourism's main comparative advantage over other sectors is that visitor expenditures have a "flow-through" or catalytic effect across the economy in terms of production and employment creation in those areas. Receipts from African tourism in 2012 amounted to over US\$36 billion and contributed just over 2.8% to the region's GDP. However, in 2014 (January to August) 2,200 elephants were found with tusks poached which is a loss to African economies of US\$4.4 billion over the life span of those elephant living for 70 years. Wildlife has an economic value and it is correct for conservationists to value wildlife.

Another reason the conservationists are correct is their discussion concerning the lifting of the ban on rhino horn trading. Conservationists realise they will be unable to stop the demand for the rhino horn and instead, want to be able to supply the rhino horn to the market which ensures the rhino's safety. Rhino horn is made up of keratin (like the composition of a human finger nail) and can be filed or trimmed just like a human finger nail without pain and it grows back within three years. If C.I.T.E.S. was to lift the ban than African farmers could stock rhinos and extract the horn periodically to the market.

CHAPTER 4

SPATIAL DIMENSION

Spatial Dimension is an important and useful geographical concept. It means "where" is the poaching issue and "why" is poaching happening?

Thanks for studying this geographical issue.

ACTIVITY 6

LESSON PLAN

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)		
TIME:	FOCUS: Spatial Dimension (where were the rhinos before poaching, where are they now?)		
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA: <div><div><input checked="" type="checkbox"/> Teacher driven</div><div><input type="checkbox"/> Student driven</div><div><input type="checkbox"/> Peer Tutoring</div><div><input type="checkbox"/> Discussion</div><div><input type="checkbox"/> Lecture</div><div><input type="checkbox"/> Stations</div></div> <div><div><input checked="" type="checkbox"/> Individual</div><div><input type="checkbox"/> Pairs</div><div><input type="checkbox"/> Groups</div><div><input type="checkbox"/> Teams</div></div> <div><div><input type="checkbox"/> Simulation</div><div><input type="checkbox"/> Hands on</div><div><input checked="" type="checkbox"/> Identification</div><div><input checked="" type="checkbox"/> Problem Solving</div><div><input type="checkbox"/> Storytelling</div><div><input type="checkbox"/> Games</div></div> <div><div><input type="checkbox"/> Synthesis</div><div><input type="checkbox"/> Analysis</div><div><input type="checkbox"/> Experiments</div><div><input type="checkbox"/> Technology</div><div><input type="checkbox"/> Puzzles</div><div><input type="checkbox"/> OTHER:</div></div>		
OBJECTIVE(S): Students will learn about: where the African rhino species used to be in Africa and where they are today. They will demonstrate the spatial dimension on a map using coloured shading.			
PREPARATION: Collect 30 sets of brown pencils and 30 sets of orange pencils. Upload the WWF website.			
TIME	INSTRUCTION/METHODS		MATERIALS
5 minutes	<u>Instructor:</u> Settle the class by having an alphabetical seating plan, get silence, take the roll and inform the students of classroom standards. Ask the students to turn to Activity 6 of the activity book. <u>Introduce the lesson:</u> In today’s lesson you will begin spatial dimension. Spatial dimension means to study where and why something is happening in an ecosystem. We will use coloured pencils to shade on a map where rhinos used to be and where they are now in Africa.		• Students Activity Book (Page 18)
15 minutes	<u>Instructor:</u> Read through the activity, hand out the coloured pencils and let the students begin colouring. Remind them they must be neat in geography, no scribbling.		• coloured pencils
5 minutes	<u>Instructor:</u> Upload the WWF website		• WWF website
15 minutes	Instructor: When the students have finished colouring. Ask them to watch you on the board: with a ruler (hold up a ruler) and a lead pencil (hold up lead pencil) draw a BIG BOX below the rhino drawing. INSIDE that box, write the word LEGEND. Underneath ‘legend’, draw TWO (2) smaller boxes. Colour one in the lightly shaded colour, name it WHERE RHINOS WERE. Colour the other in the heavily shaded colour, name it WHERE RHINOS ARE NOW. Ask the students to do their LEGEND. When the students have finished making a LEGEND. Talk about where the rhinos are left in Africa. Then ask them: WHY have rhinos disappeared?		• Lead pencils • Ruler
10 minutes	Instructor: To help them answer this question, ask them to turn to Activity 14 of the activity book. Inform them to look at the pictures in the activity book and think about what they are showing. Brainstorm reasons rhinos might be disappearing on the whiteboard. Ask the students to copy this information down into their ‘class notes’ page then use the information to answer the last question.		• Lead pencils
End of lesson	Dismissing the class: remember to have the students stand behind their desks, pick up any rubbish and wait quietly until the students stand silently waiting to be dismissed. If they waste your time by still talking, take up their time at recess or lunchtimes or end of the day.		

SPATIAL DIMENSION (PART A)

Spatial Dimension is a geographical term, it means you will study "where" the issue is happening AND "why" it is happening

In this activity you will focus on where the rhinos were before poaching and where they are now. The map is a great way to show the spatial dimension of a geographical issue.

AFRICAN RHINOCEROS

In Africa, there are TWO rhino groups : White and Black. But, they are both GREY in colour? Why are they called "Black" and "White"?

The confusion comes from a mis-translation of "weit" which meant 'wide-lipped' (mis-pronounced as 'white' in English). African rhino's have existed for thousands of years across Africa. Yet, between 1970 – 1996 the Black rhino numbers dramatically dropped by 96% from 65,000 to 2,300. Since then, Black rhino numbers have increased to approximately 4,800 (2013) thanks to specially trained and skilled African Game Rangers. Even though the White rhino numbers are at 20,000, it is still too low. This map shows 'where' the rhino's were BEFORE and 'where' they are NOW. That is, their SPATIAL DIMENSION.

INSTRUCTIONS

1. Read the 'African Rhinoceros'
2. Colour the section labeled "BEFORE": **BROWN**
3. Colour the section labeled "NOW": **ORANGE**
4. Answer the questions

BEFORE

NO COLOUR
LEAVE THIS BLANK

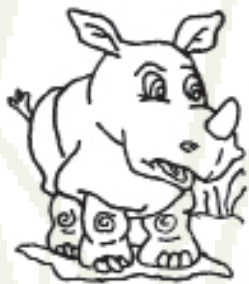
NOW

NOW

NOW

NOW

NOW



QUESTIONS:

Describe the African rhinos distribution across Africa.

Use the following link: <http://goo.gl/0H2pKX>

Just 150 years ago, Africa's savannas teemed with over a million black and white rhinos. But relentless hunting by European settlers saw rhino numbers and distribution quickly decline. Poaching also escalated during the 1970s and 1980s as demand grew for rhino horn, a prized ingredient in traditional Asian medicines - leaving both species at risk. Between 1970-1996, rhino populations dropped by 96% and are now found in only a few locations along Eastern African countries.

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)			
TIME:	FOCUS: Spatial Dimension (Why are rhino's being killed by poachers?)			
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA: <div><div><input checked="" type="checkbox"/> Teacher driven</div><div><input type="checkbox"/> Student driven</div><div><input type="checkbox"/> Peer Tutoring</div><div><input type="checkbox"/> Discussion</div><div><input checked="" type="checkbox"/> Lecture</div><div><input type="checkbox"/> Stations</div></div> <div><div><input checked="" type="checkbox"/> Individual</div><div><input checked="" type="checkbox"/> Pairs</div><div><input type="checkbox"/> Groups</div><div><input type="checkbox"/> Teams</div></div> <div><div><input type="checkbox"/> Simulation</div><div><input type="checkbox"/> Hands on</div><div><input checked="" type="checkbox"/> Identification</div><div><input checked="" type="checkbox"/> Problem Solving</div><div><input type="checkbox"/> Storytelling</div><div><input type="checkbox"/> Games</div></div> <div><div><input type="checkbox"/> Synthesis</div><div><input type="checkbox"/> Analysis</div><div><input type="checkbox"/> Experiments</div><div><input type="checkbox"/> Technology</div><div><input type="checkbox"/> Puzzles</div><div><input type="checkbox"/> OTHER:</div></div>			
OBJECTIVE(S): Students will learn about: the demand for rhino horn and why it is difficult to stop. They will analyse the complexity of rhino horn demand.				
PREPARATION: Familiarise yourself with this lesson by: <div><div>1. Read the BACKGROUND INFORMATION below.</div><div>2. Watch the IAPF school video blog 4 (http://goo.gl/aTDJ3a) (21.40 minutes)</div></div> <div>This video is an indepth look into rhino horn demand. It follows IAPF CEO Damien Mander through Vietnam's black markets.</div>				
TIME	INSTRUCTION/METHODS			MATERIALS
5 minutes	Instructor: Settle the class by having an alphabetical seating plan, get silence, take the roll and inform the students of classroom standards. Introduce the lesson: Today's Lesson: students will see the spatial dimension why the African savanna habitat (and in turn, the Rhinos) need conservation.			<div><div>• Students Activity Book (Page 19)</div></div>
15 minutes	<u>Instructor:</u> Ask students to open up to Activity 7 and watch the IAPF's Video Blog 4.			<div><div>• IAPF Video Blog 4</div></div>
10 minutes	<u>Instructor:</u> Select students to read out different paragraphs of the activity. Discuss and answer Question 1 and 2.			
25 minutes	<u>Instructor:</u> Read out Question 3 and the accompanying information. <div>This will be a challenging question for students. Students need to think about what it would be like to be told to 'give up' something they believe is essential for their: health, heritage, education, family values, culture and taste preference (eg: meat). Despite, there being substitutes and alternatives to eating meat (eg: micro-protein Quorn products from Coles and Woolworth's supermarkets, soy, tofu, lentils, iron supplements and so on).</div> <div>The reason for this comparison is to demonstrate to the students that it's not straight forward to tell another culture to stop their cultural behaviours, irrespective of there being substitutes and alternatives in the world to meet their needs (eg: pharmacaeticals).</div> <div>Students then must attempt to answer Question 3.</div>			<div><div>• Google 'Quorn' products to show the students alternatives to meat.</div></div>
End of Lesson	Dismissing the Class: Finish the lesson with students standing behind their desks, rubbish off floor and quiet. Dismiss when this is done.			

BACKGROUND INFORMATION

Wealthy Asian people use rhino horn as a key ingredient in their traditional medicine and as a status good to show off their wealth to their freinds and family - as a Westener would do buying a Ferrari or Porshe - such as having rhino-horn-snorting parties, rhino horn ash-trays or mantle piece ornaments. Others from the Middle East are using the rhino horn as dagger handles and ornaments and fund their purchase of weapons for terrorism operations. The international organisation C.I.T.E.S. (Convention on International Trade in Endangered Species) banned the trade in rhino horn to protect the species from extinction (1977) (see Activity 15 for additional C.I.T.E.S. information). However, rich foreign syndicates continue to smuggle in weapons and bribe corrupt officials and locals to poach the rhino horn to feed the illegal black market.

ACTIVITY 7

WHY IS 96% OF
MY SPECIES

BEING

SPATIAL DIMENSION (PART B)

Watch the IAPF [Video Blog 4 Spatial Dimension](http://tinyurl.com/kzmqul) Where, Why and Vietnam. Use the URL ...<http://tinyurl.com/kzmqul>

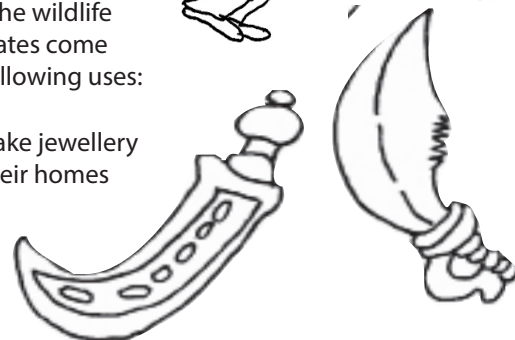


Why are people poaching wildlife?

REASON 1: COMMERCIAL REASONS: Corrupt wealthy foreign syndicates gangs from Asia and the Middle East pay local Africans to poach wildlife and smuggle wildlife parts out of Africa. The foreign syndicates sell the rhino horn on illegal black markets to wealthy foreigners as status goods, ingredient in traditional medicine, to make ornaments and jewellery and to fund terrorist activities. The poachers are poor locals or foreigners from neighbouring countries which are ordinary villagers, corrupt police, game rangers, and/or security guards. Locals poach for TWO main reasons: subsistence (ie they come from a slum and / or are trying to survive because they are poor, have low education, no job or are of the opinion that the wildlife are pests) or commercial, that is they are part of a gang syndicate. The biggest syndicates come from Vietnam, China and the Middle East which pay over \$100,000 per horn for the following uses:



1A) JEWELLERY / ORNAMENTS: The rhino horn and elephant tusks are being poached to make jewellery and ornaments to show off in their houses. By displaying rhino horn or elephant tusks in their homes it shows their wealth, like a western wealthy person buys a luxury car. Countries such as Yemen make luxury item dagger handles, jewellery, bowls, vases, statues and cutlery. This dates back thousands of years, it is part of their culture. (NOTE: Tourists buy souvenirs from these countries which contain wildlife parts such as wildlife hair, fur, skin, bone, shell and other body parts in them. It is hard for the tourists to tell the difference between the



1B) TRADITIONAL CHINESE MEDICINE: The rhino horn (and other wildlife parts) are used in China and Vietnam as ingredients in traditional medicine dating back thousands of years. These cultures believe the rhino horn cures fevers, arthritis and cancer, despite no scientific proof. Their belief in the power of rhino horn is culturally ingrained like westerners belief in the importance of meat.



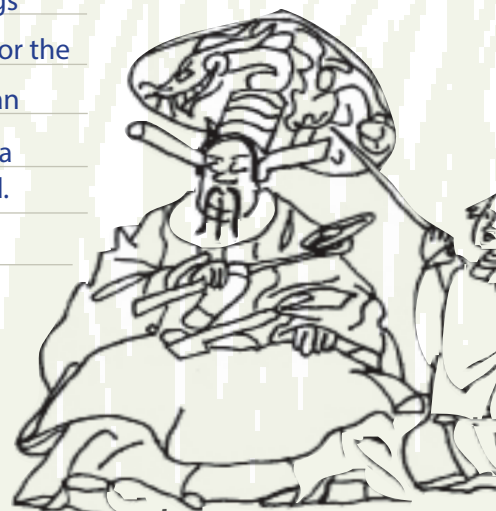
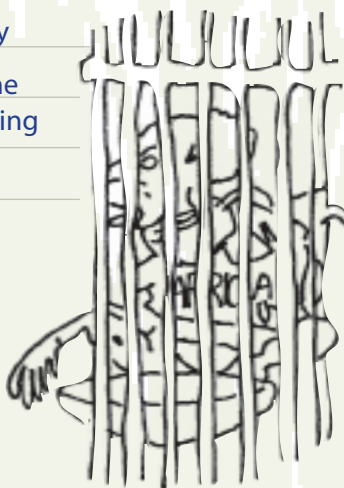
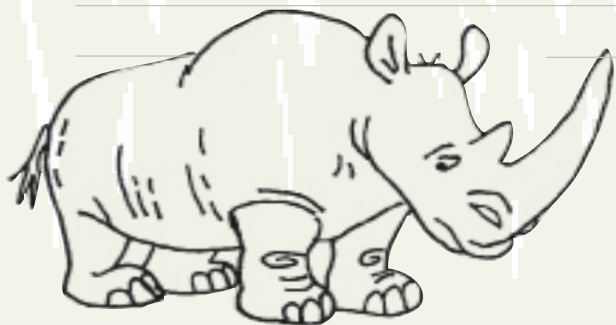
REASON 2: POLITICAL INSTABILITY / WAR: There are many global countries suffering from political instability and tension. This could be due to corrupt government leaders which result in civil unrest, border conflicts, guerilla malicia, uprisings to overthrow governments, terrorism acts against other bordering states and countries. These conflicts unsettle and devastate the basic functioning, policing and growth of the country. Locals find it difficult to grow food, send their children to school to get an education, get or keep a job. It also prevents foreign investment and tourism entering the country which brings money into the country. As a reality, instability makes it easier for poaching. The lack of policing and law enforcement makes it easier for locals to risk the dangers of poaching to earn money from the wealthy foreign syndicates. On a smaller scale, locals will poach wildlife to sell the meat at the local markets.



INSTRUCTION: Watch the IAPF Vietnam mini series, Video Blog 4 & answer the questions.

1. What is rhino horn being used for in Vietnam? [key ingredient in traditional chinese medicine](#)

2. Outline TWO reasons why poaching occurs in Africa. [Commercial: foreign syndicate gangs want the rhino horn to supply it to illegal black markets for the middle east for jambayias, ornaments, jewelry wealthy people for traditional chinese medicine status good.](#) 2. [Subsistence poaching and as a for food.](#)



SPATIAL DIMENSION (PART B)

Questions continued (tip: www.poachingfacts.com/)

To answer question 3 below, you need to consider why this issue is so difficult to solve. Poaching has a demand and supply side. Consider both. From a demand side, It is difficult to solve because it involves telling another culture their custom of using animal parts for their health and wealth status is wrong. To help you understand the complexity of changing their view, you are advised to think about how difficult it would be for an Australian to give up what we consider a key part to our culture such as, eating meat. Think about how you would react if someone told you to stop eating meat! Think about Australia's beliefs about meat, why we eat it, who tells us we need it, what it does for our health and how nice we think it is. Now, consider how difficult and confronting it would be if someone told you that your belief was a myth and that you did not need to eat meat to be healthy and that there were alternatives and substitutes you could use. How hard would it be for you to stop? Would you? Look at the reasons for the poaching. Is it that easy to stop? Country beliefs are deeply ingrained, justified and go back centuries. Asian and Middle Eastern countries beliefs go many thousands of years back in time and many Africans face poverty each day. Do we have the right to challenge a cultural belief? Can it even be done? Should we try to meet the demand for rhino horn by farming the rhino? Do we need more boots on the ground (that is, more trained game rangers) to protect the wildlife?

SAMPLE ANSWER: Poaching has traditionally been defined as the illegal hunting, killing, or capturing of wild animals, usually associated with land use rights. Until the 20th century, mostly impoverished peasants poached for subsistence purposes, thus supplementing meager diets. Today, highly organised wealthy foreign syndicates and rebel militia poach for commercial gain to fund terrorist activities, demonstrate an individuals wealth and status in society. Poaching is complicated and difficult to solve both from supply and demand.

Commercial poachers and traffickers are the major players of the illegal wildlife trade and support regional criminal groups, supply weapons or financial aid, and bribe government officials. At this level wildlife traffickers procure illicit ivory, rhino horn, animal skins, and other products from regional syndicates and smuggle them to major departure points or receive shipments from abroad and smuggle them to destination markets. Shipments may be disguised as legal goods, such as peanuts or furniture, or are sealed in cargo containers with hundreds or even thousands of kilograms of contraband inside. The consumers are wealthy foreigners such as middle eastern men wanting jambias for show and status, Asian middle to high income earners wanting to show off their wealth with rhino horn gifts, ornaments and ground-down for traditional medicine. This is difficult and complicated to influence, let alone solve because these cultures are ancient and have traditions extending back thousands of years. Their beliefs are deeply ingrained in their societies. The foreign syndicates are deeply organised and use militia forces and corrupt government officials.

From a supply side, there's extreme poverty, low literacy rates and high unemployment rates in Africa making locals susceptible to bribery and corruption. Seized shipments of illicit ivory from Africa have been recorded as containing more than 800 kg of ivory. In 2015 Ugandan authorities seized three boxes of a shipment to Amsterdam contained 2,000 kg of pangolin scales and 700 kg of ivory tusks (estimated to cost the economy US\$1.5 million in lost revenue to the tourism industry - calculated by an average 10kg tusks per elephant * \$22,000 value). In 2013 seizures of illegal ivory were estimated to have exceeded 35,000 kilograms. With poachers in Africa earning roughly 5-10% of the selling price of the raw product the most well organised and highly-connected syndicates stand to make huge profits with every shipment that evades detection by customs officials. This makes poaching very difficult to solve when poverty and greed are at work.

CHAPTER 5

ECOLOGICAL DIMENSION

Ecological Dimension is an important and useful geographical concept. It means "how" humans interact with the physical environment. The interaction can be positive and negative. In this chapter, you will learn the methods used by poachers which is damaging and threatening the savanna habitats of Africa.

Thanks for studying this geographical issue.

ACTIVITY 8

LESSON PLAN

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)			
TIME:	FOCUS: Ecological Dimension (ie: how the humans interact with the environment, in a negative way)			
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA: <div><div><input type="checkbox"/> Teacher driven</div><div><input type="checkbox"/> Student driven</div><div><input type="checkbox"/> Peer Tutoring</div><div><input type="checkbox"/> Discussion</div><div><input checked="" type="checkbox"/> Lecture</div><div><input type="checkbox"/> Stations</div></div> <div><div><input checked="" type="checkbox"/> Individual</div><div><input type="checkbox"/> Pairs</div><div><input type="checkbox"/> Groups</div><div><input type="checkbox"/> Teams</div></div> <div><div><input type="checkbox"/> Simulation</div><div><input type="checkbox"/> Hands on</div><div><input checked="" type="checkbox"/> Identification</div><div><input type="checkbox"/> Problem Solving</div><div><input type="checkbox"/> Storytelling</div><div><input type="checkbox"/> Games</div></div> <div><div><input type="checkbox"/> Synthesis</div><div><input checked="" type="checkbox"/> Analysis</div><div><input type="checkbox"/> Experiments</div><div><input type="checkbox"/> Technology</div><div><input type="checkbox"/> Puzzles</div><div><input type="checkbox"/> OTHER:</div></div>			
OBJECTIVE(S): Students will learn about: the techniques and equipment used by poachers to get the rhino horn and the damage the poaching does to the environment.				
PREPARATION: Familiarise yourself with this lesson by: <div><div>1. Watching the IAPF School Video Blog 5 (Ecological Dimension) (http://goo.gl/aTDJ3a) (10.27 minutes)</div><div>2. Read the ADDITIONAL KNOWLEDGE AND INFORMATION to understand the range of poaching methods.</div></div>				
TIME	INSTRUCTION/METHODS			MATERIALS
5 minutes	Instructor: Settle the class by having an alphabetical seating plan, get silence, take the roll and inform the students of classroom standards. Introduce the lesson: In today's lesson you will be introduced to the ecological dimension of poaching. Ecological dimension is how humans are interacting negatively with the environment and the damage being done. Write this up on the whiteboard (as it's an important geographical concept).			• Students Activity Book (Page 22)
15 minutes	Instructor: Ask students to open up to Activity 8, then watch the IAPF's School Video Blog 5 (http://goo.gl/aTDJ3a)			• IAPF School Video Blog 5
20 minutes	Instructor: Select the students to read out each paragraph. When finished, dicuss and answer any questions - may need to replay the video blog 5. Have students answer the questions on the next page.			
END OF LESSON	Dismissing the Class: Inform the students that the next lesson will be outdoors (unless raining). Finish the lesson with students standing behind their desks, rubbish off floor and quiet. Dismiss when this is done.			

ADDITIONAL KNOWLEDGE AND INFORMATION

Poachers use a variety of techniques to poach wildlife.

LOW RANGE TECHNIQUES:

Low range poaching techniques are low level, easy to obtain materials found around their local neighbourhood such as telephone line cables and wires to breakdown and use as *wire snares*, *machettes* bought and sold at the local markets and spears they make themselves. The locals are poor, low educated and will enter a game park for a lucky kill or are easily bribed by corrupt officials (eg police officers, border and custom officials, friends and family members) with the promise of \$1000 to break into game reserves and get a rhino horn or elephant tusk. Some locals are knowledgeable as to how to use a piece of wood or stick to short-wire an electric fence which surrounds most game reserves. They know the best time to break into a game park such as, during a *full moon* (because it's easier to see at night), *after heavy rainfall* (because they can easily dig underneath muddy electric fence lines), *early evening* when the sun has just set or *early dawn* just before the sun comes up (because the cover of darkness is easier to hide from game ranger patrols). Once into the game park, the poacher will be looking for rhino tracks, wallows and water holes to put their wire snares. If they come across wildlife they will use the machette for protection or to hack down the animal.

COMMON TECHNIQUES (ANTI-TRACKING):

Poachers are very aware that there is a 'shoot to kill' policy in Africa which means, most game rangers (not IAPF game rangers) will shoot on sight without question. So the risk of being caught and killed makes poachers be very clever in covering their presence in the game park. The poachers will *walk backwards* to confuse game rangers, *cover their feet* with material to resemble elephant foot-prints, *wipe away their tracks* with shrub branches and *hide* behind or up a tree until game rangers on patrol pass by.

HIGH RANGE TECHNIQUES:

High range poaching techniques include *all of the above* in addition to being well organised, highly equipped dangerous groups individuals which are supplied smuggled in high powered weapons such as AK47s, microlight planes, M99 vet darts and cyanide poison. These poachers are aggressive and highly skilled in *anti-tracking* and *combat* skills. They are heavily connected to corrupt officials and smuggle out weapons and horn across custom borders, across rivers and in railway and trucks.

ECOLOGICAL DIMENSION

How humans are interacting negatively with this environment

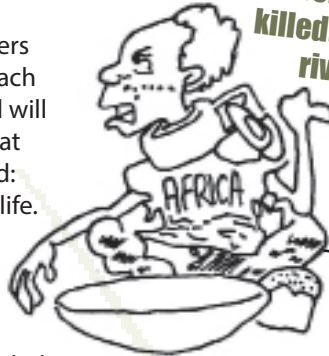
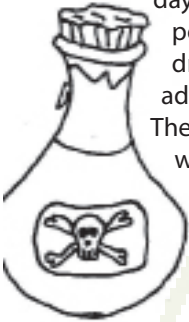
Watch the IAPF School Video Blog 5



"Hey? Do you know where the rhinos are? Find one for me. I want its horn! I don't care what you have to do to get it, just GET IT! I will give you weapons, poison for the rivers, snare traps for the vegetation ..."

Poison

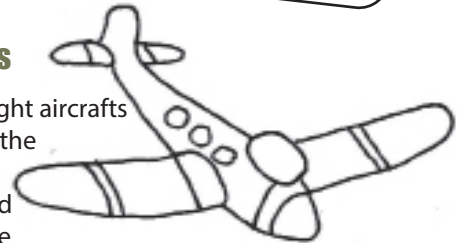
Poachers use poison in the water ways and rivers to kill the rhino. All wildlife must drink water each day to survive. Poachers know this and will pour cynaide into rivers. Anything that drinks or use the water gets poisoned: adults, children, cattle, crops and wildlife. Then secondary deaths occur with wildlife eating carcasses of poisoned wildlife (eg Vultures). This breaks down the delicate food web of the ecosystem & diversity needed to sustain a healthy soil to grow vegetation and crops.



"...Yes, I know where the rhino's are. But, it is very dangerous. I could get caught even killed! Villagers won't like me poisoning the rivers, plus there are game rangers out there. I could get caught, searched and arrested then sent to jail for threatening this habitat ..."

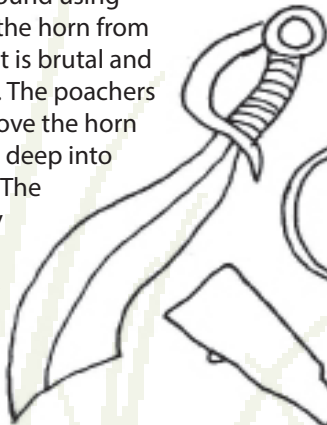
Planes

Poachers have been found using micro-light aircrafts and helicopters to find the rhino from the air. Sometimes, micro-light planes are confiscated from NGOs/NPOs and used illegally to find the rhinos. Poachers are even using drone technology.



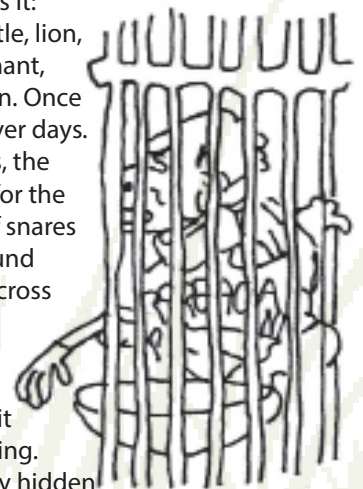
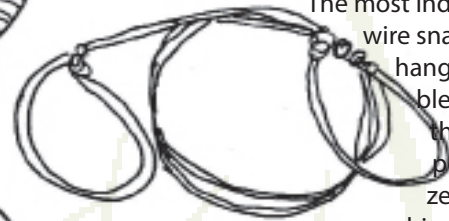
Machetes / Knives / Spears

Poachers have been found using machetes to hack off the horn from the face of the rhino. It is brutal and painful for the animal. The poachers are aggressive to remove the horn which means hacking deep into the nose of the rhino. The rhino may be still very much alive while this happens. They do this quickly so they don't get caught or shot on sight by Game Rangers on patrol.



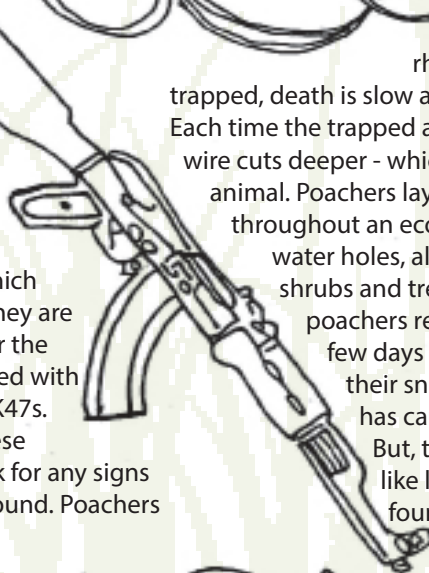
Wire Snares

The most indiscriminate weapon used by poachers are the wire snare made of a grey coloured wires (eg: coat-hanger wire or stolen telephone cable wires) which blend into the habitat. Snares kill everything that touches it: people, cattle, lion, zebra, elephant, rhino and so on. Once trapped, death is slow and painful over days. Each time the trapped animal moves, the wire cuts deeper - which is torture for the animal. Poachers lay hundreds of snares throughout an ecosystem: around water holes, along tracks, across shrubs and trees. The poachers return every few days to check their snares to see if it has caught something. But, the snares stay hidden like land-mines for years unless found and removed by game rangers.



Guns (AK47s)

Poachers have been found using weapons such as powerful and highly illegal AK47s which are automatic weapons used during wars - they are serious weapons smuggled into countries for the poachers. But game rangers are only equipped with rifles or shot-guns which are no match for AK47s. At night, rangers constantly listen out for these weapons being fired and during the day look for any signs or butt imprints of these weapons on the ground. Poachers go to gaol for possession of such weapons.



M99 VET Darts

Corrupt vets may help poachers get access to highly restricted veterinary drugs such as M99 (originally designed to use on animals in operations). When used in large doses it sends the rhino to sleep so the poacher can strike. When the rhino finally dies, the lions, hyenas & vultures that feed on the carcass will die because one drop of M99 is strong enough to kill a human.



ECOLOGICAL DIMENSIONS: QUESTIONS

Watch the IAPF Video Blog 5 and answer the questions:

1. Describe which poaching tool is the most 'indiscriminate'. Why?

Wire snares: wire is easy to acquire in Africa. It is torn down from telephone lines, found along the road, sold in markets and light enough to carry into game parks. Wire is also a grey colour which blends easily into the environment and is difficult to detect or see making it the most frustrated tool of choice. Wire snares are like land mines, once they are laid they can remain for years waiting for wildlife, people and livestock to trip it. It kills anything, it's indiscriminate.

2. Explain which poaching tool is the most poisonous to African locals, villagers and wildlife.

Poison (cyanide): poachers use poison such as cyanide and pour it into the river systems. They do this because they know the rhino must drink from the water hole daily for its survival. But once the poison is in the water it kills anything which drinks from it and fish. This is very negative for locals and villagers which rely on the water for drinking, water their crops, drinking for their livestock and for the fish they need to catch for dinner. The poisoned water enters the ground water system and spreads out killing the vegetation. In addition, secondary deaths occur to any wildlife which eats poisoned carcasses such as vultures (needed to prevent disease from rotting carcasses).

3. Evaluate which poaching method is the overall worst for a game ranger. Justify your answer.

SAMPLE ANSWER: Game rangers need to be highly skilled to locate poachers and or discover their poaching methods before any damage can be done to the ecosystem. There are a variety of poaching methods - wire snares, fires, machettes, AK47s, M99 darts, poison and spears - each with a variety of negatives they do to the ecosystem. For the game rangers there are THREE (3) dominated methods which cause the most damage to the ecosystem, hence are the worst for the rangers, these include the wire snare, poison and fires.

Wire snares are the most difficult to find in the savanna / grasslands as they are grey and easily blend into the vegetation. The wire snares are like land mines, once they are laid throughout the vegetation they can stay in the savanna for decades waiting for something to trigger it. Snares are easy to make, the locals simply steal or strip telephone cables and make into traps. Locals can make hundreds of traps. The snares are indiscriminate. They will kill anything whether it is a person, livestock, rhino, elephant, impala, giraffe, lion and so on. For this reason, game rangers find this method of poaching as one of the worst.

Whereas, other methods such as cyanide poisoning into the river systems is just as negative for game rangers. This is because it is difficult to trace the cyanide poisoning or know when the poison is being set as it is silent. Once the poison is in the river system it is there for a long time. Everything which drinks from the river will be killed whether it is the wildlife, livestock or the local villagers and farmers. Even worse, if a village is digging a well in their village the poison can come up through the well via the ground-water system killing the villagers and livestock and poisoning crops. Poison also causes secondary deaths onto scavengers such as the white-backed vulture which is endangered and can kill dozens of birds eating a poisoned carcass. Game rangers rely on vultures to alert them to intruders in game parks. For many rangers poison is the worst.

For others, it is the fires being set to herd the rhinos into an ambush area. Fire destroys most of the vegetation in an area needed for locals, wildlife and cattle. Fires also are left to burn out of control without fire rangers and water.

CHAPTER 6

GROUP RESPONSE TO THIS ISSUE (and skills)

In this chapter you will learn the skills used by the LAPF to interact positively with the environment, how they support local communities and the current initiatives being used to respond effectively and methodically to poaching.

Thanks for studying this geographical issue.

ACTIVITY 9

LESSON PLAN

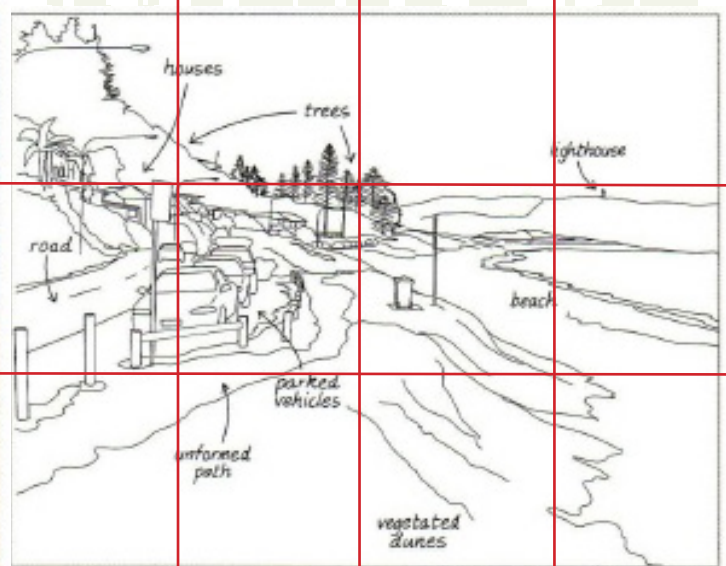
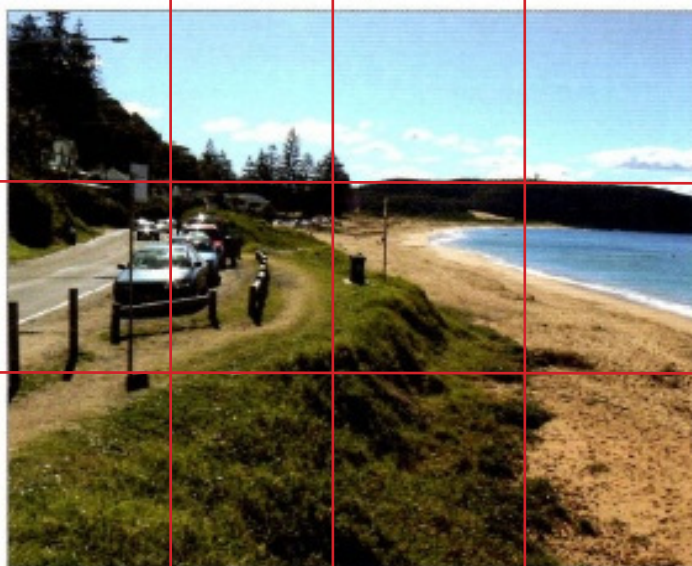
DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)																										
TIME:	FOCUS: Group responses to poaching (ie: how the humans interact with the environment, in a positive way)																										
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA: <table border="0"> <tr> <td><input type="checkbox"/> Teacher driven</td><td><input checked="" type="checkbox"/> Individual</td><td><input checked="" type="checkbox"/> Simulation</td><td><input type="checkbox"/> Synthesis</td></tr> <tr> <td><input checked="" type="checkbox"/> Student driven</td><td><input type="checkbox"/> Pairs</td><td><input checked="" type="checkbox"/> Hands on</td><td><input type="checkbox"/> Analysis</td></tr> <tr> <td><input type="checkbox"/> Peer Tutoring</td><td><input type="checkbox"/> Groups</td><td><input checked="" type="checkbox"/> Identification</td><td><input type="checkbox"/> Experiments</td></tr> <tr> <td><input type="checkbox"/> Discussion</td><td><input type="checkbox"/> Teams</td><td><input type="checkbox"/> Problem Solving</td><td><input type="checkbox"/> Technology</td></tr> <tr> <td><input type="checkbox"/> Lecture</td><td></td><td><input type="checkbox"/> Storytelling</td><td><input type="checkbox"/> Puzzles</td></tr> <tr> <td><input type="checkbox"/> Stations</td><td></td><td><input checked="" type="checkbox"/> Games</td><td><input type="checkbox"/> OTHER:</td></tr> </table>			<input type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input checked="" type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis	<input checked="" type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input checked="" type="checkbox"/> Hands on	<input type="checkbox"/> Analysis	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input checked="" type="checkbox"/> Identification	<input type="checkbox"/> Experiments	<input type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology	<input type="checkbox"/> Lecture		<input type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles	<input type="checkbox"/> Stations		<input checked="" type="checkbox"/> Games	<input type="checkbox"/> OTHER:
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OBJECTIVE(S): Students will learn about: field sketches and their usefulness in protecting an ecosystem. Students will learn to draw a field sketch of an outdoor area.																											
PREPARATION: Familiarise yourself with this lesson by: <ol style="list-style-type: none"> 1. Reading the <i>HOW TO DRAW A FIELD SKETCH IN GEOGRAPHY</i> 2. Gather the following materials for an outdoor lesson: 30 x lead pencils; 30 x clip boards; 30 x erasers. You will take the class to a vegetated area in the school (which has trees, shrubs, long grass, tracks or pathways). The students will need a place to sit to sketch the vegetation they see. Use the sample field sketch below to help student to draw. 																											
TIME	INSTRUCTION/METHODS		MATERIALS																								
5 minutes	Instructor: Put a sign on your classroom door that your class will be outdoors (specify location and date). Do the roll call outside. Inform the class that in today's lesson they will be performing the first geographical skill game rangers need to possess and that is: field sketching an area.		• Students Activity Book (Page 25)																								
5 minutes	Instructor: Sit students in an area that faces the vegetation they need to draw. They must draw what they see close to them, in the middle distance and far distance. Ask students to open their activity books to Activity 9, take out a lead pencil and eraser. Suggest they start with an outline of the horizon. Instruct them to avoid scribbling and to draw a line drawing (as in the sample).		• 30 lead pencils • 30 erasers • 30 clip boards																								
40 minutes	Instructor: Students can begin. It should take the whole lesson. Walk around to help or give advice to the students as they are drawing.																										
END OF LESSON	Dismissing the Class: Finish the lesson with students packing up their equipment and picking up any rubbish. Next lesson, you will be outside again, let the students know to meet you in the same area (unless it's raining). Students will need their mobile phones OR sketch pad and pen too.																										

How to draw a field sketch in geography

Step 1: Students only draw a simplified version of what they see. Start with the main objects

Step 2: Add in labels to identify what they are showing (eg tree, shrub, knife, footprint, blood drops, and so on).

Step 3: Add a title to the field sketch (include: date, time, location and number)



ACTIVITY 9



FIELD SKETCH MAPS

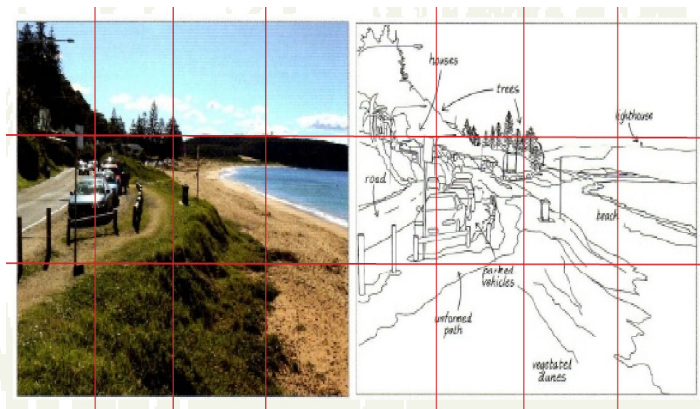
PART A: How humans are interacting positively with this environment

INTRODUCTION: In today's lesson you will be outside to begin a series of geographical skills needed to be an effective IAPF game ranger. The first skill is **sketching** used to record observations to counter corrupt police.

FIELD SKETCH MAPS

BACKGROUND: Positive ecological dimension happens when groups and organisations make a positive difference to an issue. Groups, like the IAPF use their geographical skills such as sketching & photography, area and grid referencing, patrol and tracking, latitude and longitude knowledge, map creation, drone technology and using wildlife behaviour to successfully find and stop poachers. These skills minimise the human-wildlife conflict, conserve and reinvigorate the ecosystem for local communities.

In geography, line drawing illustrations of the natural environment landscape or photograph are important to collect data. A field sketch is a simplified illustration to show the basic position of certain features. They are used to record large amounts of detailed information which if recorded as a written format would be complicated and time consuming. A particularly useful method of recording the information in a photograph is by making a line drawing of the image. This is a good way to highlight the main features and is more effective than describing it. There are times, however, when the geographer needs to capture a scene but are without the equipment (camera). Since field sketches only require a pencil, some paper and something to lean on, they are a quick and simple way of recording the necessary information.



ACTIVITY: Sit and **SKETCH** a FRONT-VIEW of the area you will be patrolling and looking for poaching tools.

Title: Date: Time: Location:			
BACKGROUND			
MID - GROUND			
FOREGROUND			

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)		
TIME:	FOCUS: Patrolling and Photography by the IAPF		
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA: <div><div><input type="checkbox"/> Teacher driven</div><div><input checked="" type="checkbox"/> Student driven</div><div><input type="checkbox"/> Peer Tutoring</div><div><input type="checkbox"/> Discussion</div><div><input type="checkbox"/> Lecture</div><div><input type="checkbox"/> Stations</div></div> <div><div><input checked="" type="checkbox"/> Individual</div><div><input type="checkbox"/> Pairs</div><div><input type="checkbox"/> Groups</div><div><input type="checkbox"/> Teams</div></div> <div><div><input checked="" type="checkbox"/> Simulation</div><div><input checked="" type="checkbox"/> Hands on</div><div><input checked="" type="checkbox"/> Identification</div><div><input type="checkbox"/> Problem Solving</div><div><input type="checkbox"/> Storytelling</div><div><input checked="" type="checkbox"/> Games</div></div> <div><div><input type="checkbox"/> Synthesis</div><div><input type="checkbox"/> Analysis</div><div><input type="checkbox"/> Experiments</div><div><input type="checkbox"/> Technology</div><div><input type="checkbox"/> Puzzles</div><div><input type="checkbox"/> OTHER:</div></div>		
OBJECTIVE(S): Students will learn about: the techniques and proficiency IAPF game rangers must have on foot patrols to find evidence of poachers, their weapons and evidence of intruders in an ecosystem.			
PREPARATION: This is a fun outdoor lesson (see the photos and tips on the next page).			
Gather the following materials such as:			
<div><div>1 x whistle</div><div>1 x pen</div><div>5 x wire coat-hangers (snares)</div><div>5 x plastic toy guns (AK47s)</div><div>5 x plastic water bottles (poison)</div></div> <div><div>5 x toy airplanes</div><div>5 x toy darts (M99 vet darts)</div><div>5 x plastic knives (machettes)</div><div>5 x torn clothing pieces</div><div>1 x bottle of tomato sauce</div></div> <div><div>1 x tally sheet (ie: student name, object found and quantity)</div><div>Students will need their mobile phones OR sketch pad and pen</div></div>			
Let your Head Teacher know your class will be outside for this lesson. Put a sign onto your class room door for any late students. Students will need their Activity Book & pens at the end of this session.			
(NOTE: Keep the objects list a SECRET. The students must NOT know what they are looking for - they need to recall the tools and methods used by poachers in previous lessons).			
TIME	INSTRUCTION/METHODS		MATERIALS
5 minutes	Instructor: Put a sign on your classroom door that your class will be at the oval. Take the roll & remind students of classroom standards. Inform students they are going to be game rangers on a patrol looking for evidence of poachers. (NOTE: Keep the objects list a SECRET, the students must NOT know what they are looking for).		
5 minutes	Instructor: Pick 5 volunteers which want to hide the objects - but they won't be able to play the game. 1. They must hide the objects in the vegetation. 2. The volunteers must use their phone to photograph where they hide each object - this is for the end of the game if no-one finds them during the game). 3. The volunteers must hide the objects carefully in trees, shrubs, at the base of plants, places which are hard to see but blend into the vegetation.		
5 minutes	Instructor: While the volunteers hide the objects, go through the rules with the class: 1. Students must look away while objects are being hidden in the vegetation. (NO PEEKING) 2. Students must stay within the BOUNDARY areas (5 volunteers will be standing there). 3. Students must LOOK SAFELY & GENTLY through vegetation when looking for objects. 4. Students must PHOTOGRAPH EACH object position before removing it via a PHONE/sketch. 5. Students must REMOVE the object & RECORD it on the TALLY sheet (located at the START). 6. Students can only take ONE OBJECT at a time. 7. Students have only 20 MINUTES to find all the hidden objects. 8. Students will START and STOP the game when they hear the WHISTLE. Ask if students have any questions.		
20 minutes	Instructor: Blow the whistle to begin the patrol. Walk around to supervise the students. Make sure they are safe looking in vegetation. Keep speaking with the 5 volunteers to know where the objects are hidden. After 20 minutes, blow the whistle to pause the game and re-group the class to find out which objects have been found and which are still yet to be found.		
10 minutes	Instructor: Blow the whistle to re-start the patrol game. Walk around and supervise student safety. After 10 minutes, blow the whistle to stop the game and start the debriefing (see below).		
10 minutes	Instructor: Debrief the treasure hunt: get students to sit down. Ask students to raise their hands who found objects. Read out each student's name in the Tally sheet and the objects they think are indicating there's poachers. Congratulate them. Hand out prizes to the best and fairest students.		
NEXT LESSON	Instructor: Students will be back in their regular classroom next lesson. They will need to use their mobile phones or sketches to cut and paste or draw in that evidence into the boxes. Then, answer the question. Remind them to bring them to class (see page 37 Teacher book).		
END LESSON	Dismiss the class as normal.		

OUTDOOR ACTIVITY

ACTIVITY 10: PATROLLING AND PHOTOGRAPHS



WIRE SNARES

The volunteer needs to hide ONE (1) in the tree, hanging off the tree limbs, lay ONE (1) across shrub stems. They need to find a variety of places to hide the other THREE (3) snares. They need to make them camouflaged into the foliage. Take a photograph of each wire snare placed, so they can retrieve them at the end of the game.



GUNS

The volunteer needs to hide ONE (1) in a tree, put another as an imprint in the soil then place ONE (1) gun near it in the vegetation. They need to find a variety of places to hide the other THREE (3) guns. They need to make them camouflaged into the foliage. Take a photograph of each gun placed, so they can retrieve them at the end of the game.

MACHETTE KNIVES

The volunteer needs to hide ONE (1) knife at the base of a tree, put ONE (1) knife in the grasses. They need to find a variety of places to hide the other THREE (3) knives. They need to make them camouflaged into the foliage. Take a photograph of each knife placed, so they can retrieve them at the end of the game.



POISON

The volunteer needs to hide ONE (1) poison at the base of a tree, put ONE (1) in the grasses. They need to make them camouflaged into the foliage. Take a photograph of each poison bottle placed, so they can retrieve them at the end of the game.

DARTS (M99)

The volunteer needs to hide ONE (1) vet dart at the base of a tree, put ONE (1) dart in the tree. They need to find a variety of places to hide the other THREE (3) darts. They need to make them camouflaged into the foliage. Take a photograph of each dart placed, so they can retrieve them at the end of the game.

PATROLLING & PHOTOGRAPHY



PART B: How humans are interacting positively with this environment

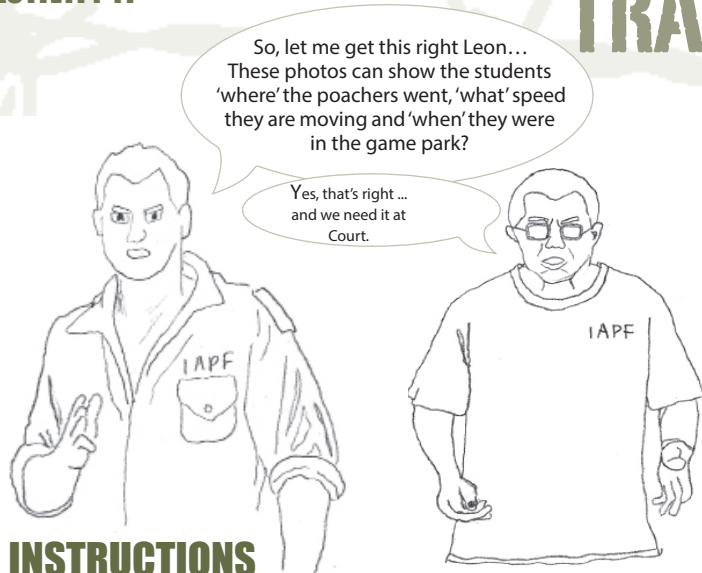
INSTRUCTIONS: Last lesson you were outside and searched for evidence of poachers. You searched vegetation in an area and took photographs or sketches of evidence. In today's lesson, you need to cut and paste or draw in that evidence into the boxes below. Then, answer the question.

Students will take their own photos or draw their own sketches of where the objects were located

QUESTION 1: What evidence did you find and / or draw in the above boxes? Describe how you located this evidence? What do you think it tells you? If this was out in the real savanna / grassland, how would you know if a human or animal caused the evidence? Finally, what could you have done to improve your chances of locating evidence and / or more evidence and faster?

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)																										
TIME:	FOCUS: Group response to poaching (use Tracking Photo Identification and Interpretation)																										
	STUDENTS WILL BE ENGAGED VIA: <table border="0"> <tr> <td><input checked="" type="checkbox"/> Teacher driven</td><td><input checked="" type="checkbox"/> Individual</td><td><input type="checkbox"/> Simulation</td><td><input type="checkbox"/> Synthesis</td></tr> <tr> <td><input type="checkbox"/> Student driven</td><td><input type="checkbox"/> Pairs</td><td><input type="checkbox"/> Hands on</td><td><input checked="" type="checkbox"/> Analysis</td></tr> <tr> <td><input type="checkbox"/> Peer Tutoring</td><td><input type="checkbox"/> Groups</td><td><input checked="" type="checkbox"/> Identification</td><td><input type="checkbox"/> Experiments</td></tr> <tr> <td><input checked="" type="checkbox"/> Discussion</td><td><input type="checkbox"/> Teams</td><td><input checked="" type="checkbox"/> Problem Solving</td><td><input type="checkbox"/> Technology</td></tr> <tr> <td><input type="checkbox"/> Lecture</td><td><input checked="" type="checkbox"/> Reflective</td><td><input type="checkbox"/> Storytelling</td><td><input checked="" type="checkbox"/> Puzzles</td></tr> <tr> <td><input type="checkbox"/> Stations</td><td><input type="checkbox"/> Persuasive</td><td><input type="checkbox"/> Games</td><td><input type="checkbox"/> OTHER:</td></tr> </table>			<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input checked="" type="checkbox"/> Analysis	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input checked="" type="checkbox"/> Identification	<input type="checkbox"/> Experiments	<input checked="" type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input checked="" type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology	<input type="checkbox"/> Lecture	<input checked="" type="checkbox"/> Reflective	<input type="checkbox"/> Storytelling	<input checked="" type="checkbox"/> Puzzles	<input type="checkbox"/> Stations	<input type="checkbox"/> Persuasive	<input type="checkbox"/> Games	<input type="checkbox"/> OTHER:
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OBJECTIVE(S): Students will learn about: the real way IAPF game rangers categories and interpret evidence they find in the ecosystem.																											
PREPARATION: Familiarise yourself with this lesson by: <ol style="list-style-type: none"> 1. Watching the IAPFs School Video Blog 12 on tracking formations. 2. Watching the IAPFs School Video Blog 13 on tracking. 3. Look over the photographs 1-9. These photographs will give game rangers information about: what, where and when the poachers are 4. Read the information below on: WHAT, WHEN & WHERE (these notes are important to understand the photographs). 																											
5 minutes	Instructor: Settle the class as per normal. Introduce the lesson: In the last lesson were outside trying to find evidence of poaching. In today's lesson, we will learn about how game rangers interpret evidence left behind by intruders to protect the habitat.																										
20 minutes	PART 1: <u>Instructor:</u> Have the students turn to Activity 11, PLAY the IAPF's Video Blog 12 on how to effectively patrol an area. Then PLAY IAPF School Video Blog 13. Students need to assess each photograph: what does each photograph tell them (eg; does it show human or animal intrusion? how do they know? can they tell where the human or animal went? or when the human or animal was there? how many were there? their weight? size? if they are carrying anything? Students aren't writing the rock was displaced or it's a stick. It's deeper information needed (see below). PS: Photograph 9 (beetle: rangers found poachers over the ridge hiding under shrubs)		<ul style="list-style-type: none"> • IAPF Video Blog 12-13 • Activity 11 photographs 1 - 9 																								
70 minutes	PART 2: <u>Instructor:</u> Write the following information on the board for students to copy into their 'class notes' page: <p>1.WHAT:</p> <p>IAPF Game Rangers patrol each day on foot for 5 hour shifts. They start around 5.30am (just as the sun is rising because a low sun angle makes it better to see evidence of intruders footprints in the game reserve). The rangers patrol in a Tracking Formation of FOUR (4) rangers. The main person is called the Lead Tracker (and scans the ground 1 metre radius for evidence of poachers), Second Tracker walks 1-2 metres behind the Lead Tracker (and scans the ground for 1-2 metre radius for evidence of humans or wildlife). The other rangers are called Flankers, they walk 15 metres on either side of the Second Tracker and look for dangers such as wildlife and hiding poachers. The rangers are looking for anything that shows a 'human' was there, this means interpreting:</p> <ul style="list-style-type: none"> • Footprints: size foot; how many people; shoes or barefoot; weight; are they running or walking, carrying anything, walking forward or backwards? How would soil be shifted if someone was running compared to walking? What would the footprint look like: would the toe imprint be deeper or the heel? How can you tell someone is walking backwards? Which imprint is deeper: toe or heel impression? (PHOTOS 3 & 5) (Test and practise this in the classroom). • equipment: what are they carrying: weapons, food, water? what type, how much? Are they carrying an animal carcass or person? How would you know if they were carrying something? Would their imprints be shallow or deep? How would you know if they were carrying water? What type of water carrying imprints would be left behind? (ANSWER: PHOTO 7 shows a urine ring - which gender causes this ring mark?). What additional things would people carry in the bush? (eg ammunition, cigarettes, matches, backpack, knives, clothing)? Is it hot in a savanna? Would people need to rest if it's hot? If so, would they rest their equipment on the ground or lean on them to rest? What imprint would be left on the ground from this? (ANSWER: PHOTO 6 shows an imprint of a rifle butt - the intruder was resting and leaning on the rifle). If they carry a carcass, would they have time to cook it while on the run? If not, what evidence would show they had an uncooked carcass with them? (eg blood drops, fur, something buried in the ground). What evidence would show they had cooked something or been over-night? (ANSWER: PHOTO 8 is of a camp fire - the fire can also be used to calculate WHEN the intruders were there, see below). <p>2.WHEN:</p> <p>IAPF game rangers must determine WHEN an intruder was in the game reserve. It's BEST to track in the early morning for tracks to 'SHINE' & cast a 'SHADOW' for the rangers to better see them. If tracks are found to be fresh (eg 0-1hr old), trackers must be careful not to stumble onto the poachers as they could have weapons (as in PHOTO 6).</p> <ul style="list-style-type: none"> • Footprints: if the outer edges of a footprint eroded away, it means the intruder was there hours ago and long gone - but it depends on the sun, wind and rain. If the spoor was in the hot sun and exposed it will erode quicker meaning the intruder could be an hour away. • Displaced rocks and sticks: tell a ranger when an intruder was there. The lighter the soil imprint of a displaced object, the longer the time since the intruder was there; the darker the soil imprint, the closer the intruder is because the soil hasn't had time to evaporate in the sun (PHOTO 1 & 2). • Beetle and bird tracks: over a footprint tell IAPF game rangers WHEN someone was there. A nocturnal bird with its footprint over a human footprint means the intruder was there before dark (vice versa). Beetles move in a constant speed and can be used to determine how many minutes or hours ahead an intruder is. (Watch the beetle video: IAPF Lead tracker Leon sees a beetle print over an intruders foot print we'd been following, he stops everyone and demonstrates how he uses beetle behaviours to determine the time ahead the intruders were. PHOTO 9 - Leon calculated the poachers were 70 seconds ahead of the IAPF group, we turned off the video and ambushed them just over the ridge.) <p>3.WHERE:</p> <p>IAPF Game Rangers must determine WHERE the intruder has been & WHERE they are going. This is calculated by:</p> <ul style="list-style-type: none"> • Footprint direction: dirt splattered forward & heavy weight on front toe tells a forward direction. • Rocks/Sticks over turned in the dirt: pebbles and rocks get trampled on and jammed into the ground by animals, yet when humans walk they sometimes trip or kick stones forward or flick/uproot twigs lying in the dirt, the kicked angle will show you which direction the human is heading (PHOTO 2). • Twigs/Vegetation: Black rhinos teeth cut twig branches at a perfect 45 degree angle whereas humans break & snap leaves/twig branches off while they walk long distances, the direction of the snapped twigs will show you the pathway WHERE they walked; humans tend to bend branches downwards & behind them as they walk past- animals don't do this. • Spider Webs disturbed: when people walk through a spider's web they will wipe it off onto the vegetation in front of them as the walk past - animals don't do this. WHERE they wipe the web shows where the poachers went. 																										
END	Dismiss class as normal																										

TRACK EVIDENCE ANALYSIS



INSTRUCTIONS

Study each photo below. Each photo shows the IAPF a clue as to 'where', 'what' and 'when' a poacher or poachers passed through and if they have already poached and how many minutes or hours ahead they are. Write what you think each photo tells you. (TIP: Maybe the photo shows: direction, speed, size, age, numbers, equipment or weapons carried by the poachers). Look closely at each photo.



PHOTO: 1 Human disturbed stick forward, footprint; soil still bit dark & moist, not evaporated; <6hrs ahead.



PHOTO: 2 Human disturbed rock forward, footprint; soil still bit dark & moist, not evaporated; <5hrs ahead.



PHOTO: 3 Human: footprints, tires, boots unregistered; up to 5 intruders, <4hrs ahead.



PHOTO: 4 Human: snap vegetation forward when walking, rhinos bite 45°, water still in stem: <3hrs ahead



PHOTO: 5 Human: their speed is slow because the toe scuff marks are deeper than the heel. They're calm.



PHOTO: 6 Human: resting as prints are scattered, all directions, mark shows a muzzle of a gun imprint: <2hrs ahead



PHOTO: 7 Human: it's a urine stain, male gender leaves this pattern, crust formed in sun, calm: <2hrs ahead



PHOTO: 8 Human: fire shows they rested, been in park at night, fire embers still warm: <2hrs ahead



PHOTO: 9* Human: beetle found over top of fresh print, beetle behaviour used to find poachers: <70 sec ahead

*Watch Video Blog (beetle)

PART C: How humans are interacting positively with this environment

In the last few lessons, you were outside looking for evidence of poachers in the school vegetation. You found things, you took photographs but did you know what the evidence was telling you? Did you calculate where the poacher was heading?

In Africa, it is crucial game rangers are skilled and trained in analysing tracks and evidence left behind by poachers. Game rangers plan where they will patrol before heading out and use a Tracking Formation of FOUR (4) rangers with different roles. Let's test your analysis ability by using the photographs 1 - 9 below.

Watch the IAPF School Video Blog 12 and 13.

TRACK INTERPRETATION

TRACKING AND INTERPRETATION continued

MAIN POINT: An important conservation skill is to be proficient in patrolling, tracking and interpreting the environment. To be proficient at protecting a habitat game rangers must constantly deepen their skills in reading the ecosystem, patrolling in a T-formation and noticing all the small changes and disturbances in the vegetation. This skill is called **tracking**.

TRACKERS must follow and interpret the **clues** found while in pursuit of poachers. Clues are called **'SPOOR'**.

SPOOR includes: blood drops, torn clothing, footprints, tyre tracks, cigarette butts, rifle butt impressions and much more ...

When IAPF game rangers find **spoor**, they record it (eg sketch and photograph) and follow it stealthy and fast! Each time they find spoor the IAPF game rangers determine THREE (3) main things:

- WHAT was there?
- WHEN were they there?
- WHERE are they going?

Trackers look for THREE (3) types of information when on a patrol: **WHAT, WHEN and WHERE:**

1. WHAT:

IAPF Game Rangers patrol each day on foot for 5 hour shifts. They start around 5.30am (just as the sun is rising because a low sun angle makes it better to see evidence of intruders footprints in the game reserve). The rangers patrol in a Tracking Formation of FOUR (4) rangers. The main person is called the Lead Tracker (and scans the ground 1 metre radius for evidence of poachers), Second Tracker walks 1-2 metres behind the Lead Tracker (and scans the ground for 1-2 metre radius for evidence of humans or wildlife). The other rangers are called Flankers, they walk 15 metres on either side of the Second Tracker and look for dangers such as wildlife and hiding poachers. The rangers are looking for anything that shows a 'human' was there, this means interpreting:

- footprints: size foot; how many people; shoes or barefoot; weight; are they running or walking, carrying anything, walking forward or backwards? How would soil be shifted if someone was running compared to walking? What would the footprint look like: would the toe imprint be deeper or the heel? How can you tell someone is walking backwards? Which imprint is deeper: toe or heel impression? (PHOTOS 3 & 5) (Test and practise this in the classroom).
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WHEN:

IAPF game rangers must determine WHEN an intruder was in the game reserve. It's BEST to track in the early morning for tracks to 'SHINE' & cast a 'SHADOW' for the rangers to better see them. If tracks are found to be fresh (eg 0-1hr old), trackers must be careful not to stumble onto the poachers as they could have weapons (as in PHOTO 6).

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WHERE:

IAPF Game Rangers must determine WHERE the intruder has been & WHERE they are going. This is calculated by:

- Footprint direction: dirt splattered forward & heavy weight on front toe tells a forward direction.
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DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)			
TIME:	FOCUS: Group responses and Skill – Area and Grid Referencing (AR and GR)			
INSTRUCTOR(S):	STUDENTS WILL BE ENGAGED VIA:			
	<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis
	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input type="checkbox"/> Analysis
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	<input type="checkbox"/> Lecture		<input type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles
	<input type="checkbox"/> Stations		<input type="checkbox"/> Games	<input type="checkbox"/> OTHER:
OBJECTIVE(S): Students will learn about: the geographical skills of area and grid referencing used in the savanna/grassland habitats by IAPF game rangers				
PREPARATION: Familiarise yourself with this lesson by:				
<ol style="list-style-type: none">1. Watching the IAPF School Video Blog 11 (area and grid referencing) and read the ADDITIONAL NOTES below.2. Recalling the rules to this skill, that is: the coordinates written first in AR & GR are the numbers which get bigger to the East (Eastings), followed by the Northing coordinates.3. Recalling which part of the box or lines are used in an answer: locate the object, pretend your standing in the bottom left hand corner4. Scan these pages into the computer (or download the softcopy of the activity book) so you can demonstrate the AR & GR on the screen.				
5 minutes	Instructor: Settle the class as per normal (ie have a regular structure to each lesson eg: stand or sit in a certain place, have your roll ready to mark, check the seating plan, go through classroom standards of behaviour). Introduce lesson: In the last few lessons we have studied various geographical skills used by the IAPF Game Rangers to protect the savanna/grassland habitats from the poaching threat. Today's lesson, we will be learning about area and grid referencing (AR & GR) and why/how the IAPF Game Rangers use these coordinates to patrol a habitat.			
10 minutes	Instructor: Ask students to open their activity books to Activity 12. PLAY the IAPF School Video Blog 11.			• IAPF School Video Blog 11
10 minutes	Instructor: Read through the paragraphs and show the students how to quote the AR & GR. Demonstrate each sample on the smartboard with the students coming out to the board to show and explain the coordinates quoted as the answer. You may need to pick random examples and positions yourself before the studnets move onto the questions.			• smartboard and scanned copy for demonstration
20 minutes	Instructor: Students may begin the activity questions. Walk around and see if each student is on task and is remembering the rules to this skill.			
10 minutes	Instructor: Go through the answers or put them up on the smartboard screen for students to check their work.			• smartboard and scanned copy for answers
END OF LESSON	Instructor: Dismiss the class after students have packed up, rubbish has been checked, chairs are in and students are quiet.			

ADDITIONAL NOTES

Area and Grid Referencing is a very important skill for game rangers to master. The size of game parks are enormous and like suburbs joined together and covered in vegetation. Game Rangers use 10 digits of the grid referencing system (rather than the 6 digits taught in high school geography). It will save wildlife and their lives from poachers.

Firstly, because the places game rangers patrol on foot are very dangerous due to the wildlife. The areas patrolled are full of vegetation (not buidlings, roads or houses) and is covered in shrubs, trees and long dried out grass sometimes over two meters high (great resting places for wildlife). It's not unusual for animals to bust out in front of rangers or chasing each other or the rangers just stumble across the wildlife - sometimes the rangers get attacked or chased and thereby injured. Rangers will do their best to get away from the wildlife - they'll stand together very still if it's a lion charging to make themselves appear bigger (never run - lions are big cats and will chase their prey), they'll run in a zig-zag pattern and fast to scatter behind trees if a rhino charges at them (rhinos have poor eye sight, but they are quick like a zebra), they'll bolt in every direction and keep running if it's a buffalo after them (lone buffalos are crazy, they'll keep coming after you). So, it's easy for rangers to get injured while out on a patrol. In the IAPF, one ranger was impaled through their back by the horn of a buffalo while trying to get away and another ranger was attacked by a crocodile near the edge of a river by they hand. Both survived and had their injuries treated fast because they used the Grid Referencing with 10 digits and radioed into head office for evac. The head office grabbed their map with the coordinates decided on by the rangers and drove full throttle straight to them.

Secondly, when game rangers come across evidence of intruders in the park or reserve such as footprints, drops of blood, heavy imprints, cigarette butts, urine stains, snapped vegetation, wire snares, matches, and so on they can't use latitude and longitude coordinates over the communication system (that means, radio). This is because latitude and longitude coordinates are universal on every map bought and sold, the intruders may have a map of the area with them and they listen in on radio waves for rangers talking. If rangers use latitude and longitude and talk over the radio using these coordinates, poachers would quickly and easily know where the rangers and wildlife were located. Easy targets and very dangerous. So instead, the rangers have a map of an area and make up their own grid system of coordinates, draw them onto the map for each ranger. It is now much safer to quote the coordinates over the radio comm's because poachers won't know where they are located. So, it's perfect for laying an ambush around found spoor from intruders. The rangers radio the coordinates to head office without details and head office gathers the other rangers, does a quick briefing and heads out to the location to lay an ambush or start a tracking formation. When the poachers return or are found, the rangers ambush them without a single bullet being exchagned, the poachers are un-armedand searched and arrested. A crime scene is then set up, rangers collect sketches and photographs of evidence, police are called and intruders arrested.

If the rangers lack the skill in grid referencing, they are putting their lives into danger and the wildlife they are meant to be protecting.

AREA & GRID REFERENCING & DIRECTION



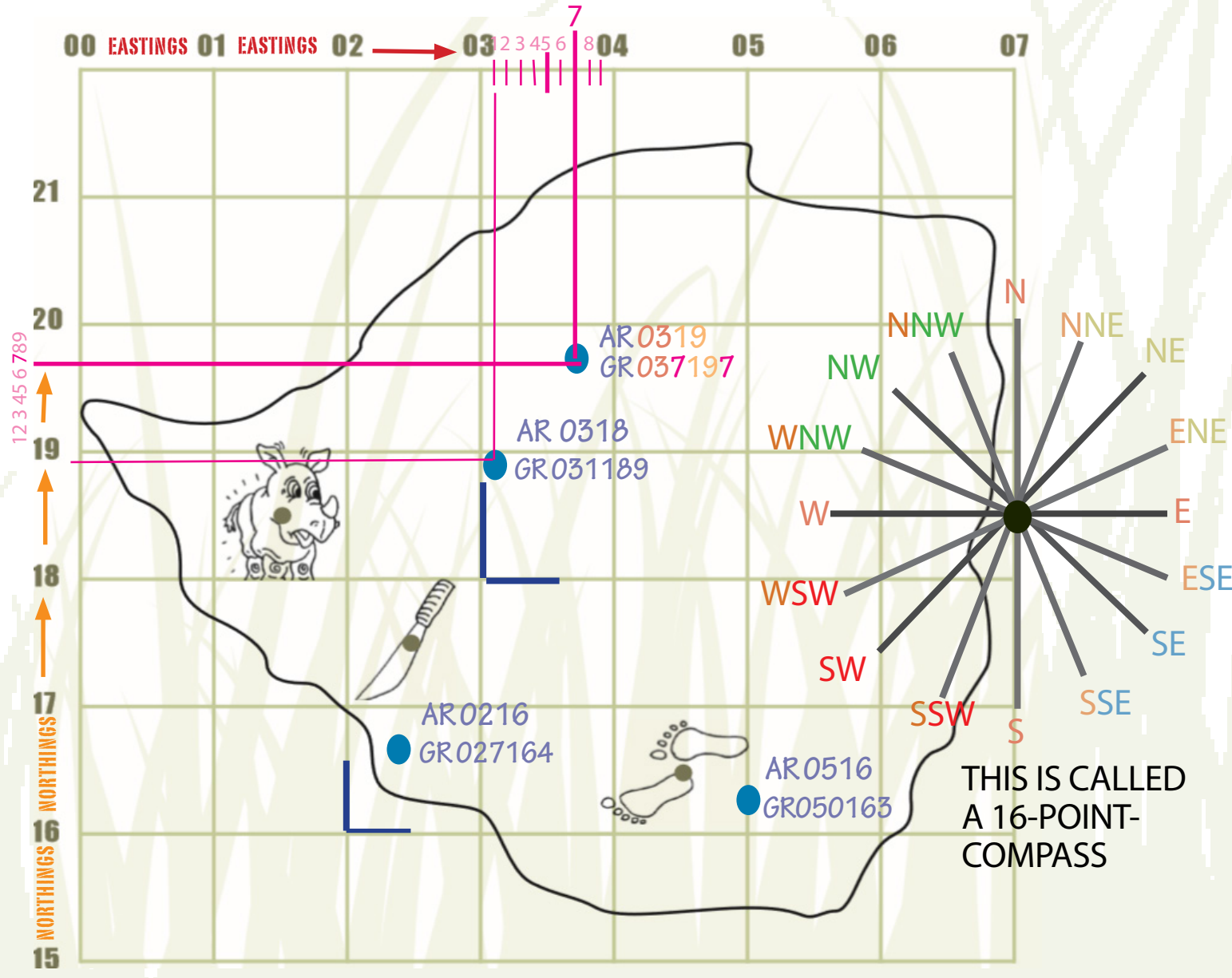
PART D: How humans are interacting positively with this environment

Watch the IAPF School Video Blog II

AREA AND GRID REFERENCING SKILL (and a 16-point-compass)

INTRODUCTION: Area Referencing is an important and useful geographical concept used by game rangers to inform their peers of their location or spoor found in the savanna. It is abbreviated as AR and consists of FOUR (4) digits (eg AR 0319). There is a general rule when calculating AR coordinates from a map: the first set of numbers in the coordinate are the **Eastings**, the second set are the **Northings**. However, AR coordinates are not very helpful, they only get rangers to within a hundred meters squared of a location which puts rangers in danger, maybe someone has been injured and need assistance to evac out, maybe a wire snare or evidence has been located and needs an ambush and / or police for a crime scene. Given a savanna is full of vegetation, it makes it very difficult to quickly locate an object across a few hundred metres.

Hence, Grid Referencing is better. Grid Referencing is abbreviated as GR and has SIX (6) digits (up to TEN 10 digits with a GPS) (eg GR037197). These coordinates get a ranger to within a few meters of their target which is much more accurate and efficient. Again, the general rule when calculating GR coordinates from a map: the first set of numbers in the coordinate are the **Eastings**, plus **ONE MINOR NUMBER**; the second set of coordinates are the **Northings**, plus **ONE MINOR NUMBER**. The **minor numbers** are calculated by dividing a box up into 10 equal parts. Attempt the samples below.

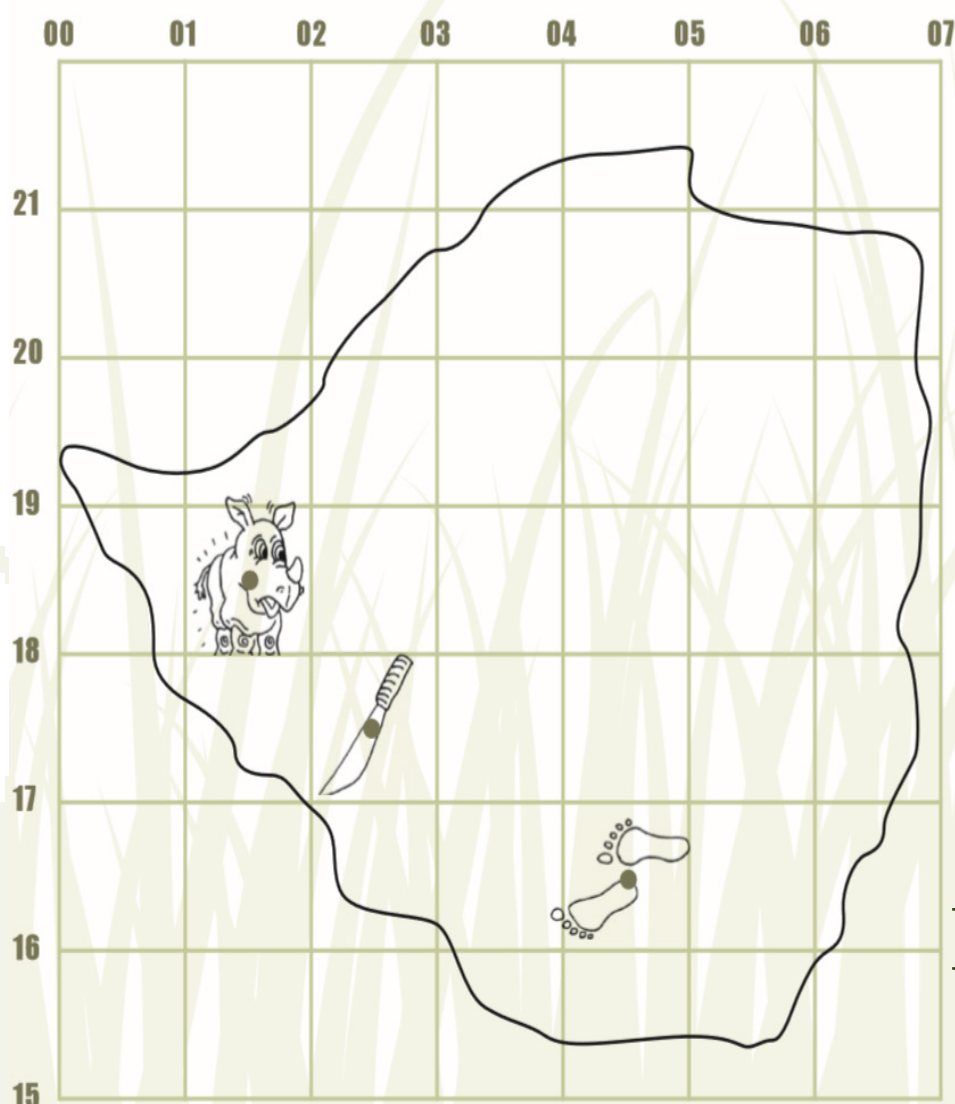




PART D: How humans are interacting positively with this environment

AREA AND GRID REFERENCING SKILL

ACTIVITY: Complete the questions below.



1. Calculate the AR of the rhino.
AR 0118
2. Calculate the AR of the knife.
AR 0217
3. Calculate the AR of the footprints.
AR 0416
4. Calculate the GR of the rhino.
GR 015185
5. Calculate the GR of the knife.
GR 025175
6. Calculate the GR of the footprints.
GR 045165
7. Outline which is better for a game ranger, AR or GR? Justify.
GR because it has a minimum of 6 digits which gets a ranger closer to a location (eg within 1 meter if 10 digits were quoted by using a GPS).


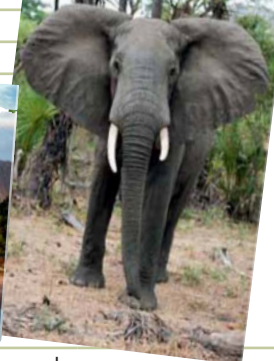
DIRECTION SKILL

ACTIVITY: Refer to and use the 16-Point-Compass and answer the following questions.

8. Calculate the direction of the rhino FROM the knife. North East (NE)
9. Calculate the direction of the knife FROM the rhino. South East (SE)
10. Calculate the direction of the knife FROM the footprints. North East (NE)
11. Calculate the direction of the footprints FROM the rhino. South East (SE)
12. Using logic, which direction is the poacher going? Justify. South East (SE) because the knife has been dropped as the intruder may have been spooked by game rangers and is walking backwards to put off rangers.

ACTIVITY 13

LESSON PLAN

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)			 
TIME:	FOCUS: Group responses – Drone Technology			
INSTRUCTOR(S):	STUDENTS WILL BE ENGAGED VIA:			
	<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	
	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	
	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input checked="" type="checkbox"/> Identification	
	<input type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	
	<input type="checkbox"/> Lecture		<input type="checkbox"/> Storytelling	
	<input type="checkbox"/> Stations		<input type="checkbox"/> Games	
OBJECTIVE(S): Students will learn about: the use of non-weaponised drone technology in the fight to preserve and protect the ecosystem from poachers.				
PREPARATION: Familiarise yourself with the: 1. '60 Minutes, Jungle Warfare' video on drone technology (https://goo.gl/jR5gQD) - will need to play in class.				
2. Read the Background Information below to understand the importance of Drone technology in combating poaching, especially for elephants.				
5 minutes	Instructor: Settle the class as per normal (ie have a regular structure to each lesson eg: stand or sit in a certain place, have your roll ready to mark, check the seating plan, go through classroom standards of behaviour). Introduce lesson: In the last few lessons we have studied various geographical skills used by the IAPF Game Rangers to protect the savanna/grassland habitats from the poaching threat. Today's lesson, we will be learning about the role of drone technology in conservation.			
25 minutes	Instructor: Ask students to open their activity books to Activity 13. PLAY the 60 Minutes interview of IAPF CEO Damien Mander, it's called 'Jungle Warfare'. Google: (https://goo.gl/jR5gQD)			• 60 Minutes, Jungle Warfare (youtube)
25 minutes	Instructor: Discuss the situation of elephants with the class (use the information below, you can use the back page of their activity books for blank paper space if you wish to write the facts on elephants). Select the students to read through each paragraph, discuss and get the students to start answering the questions. Walk around the room and help students when needed.			• blank back pages of student activity books
END LESSON	Dismiss the students as normal (chairs in, pick up rubbish, quiet).			

BACKGROUND INFORMATION

RISE OF THE DRONES:

Elephants numbers used to be 3-5 million and moved across a variety of African nations. But since European colonisation, over 80% of herds have been killed for their ivory (ivory does not grow back it is an extensive of the elephants skeletal system). In 1960, ivory was priced at \$3-\$10 per half kilogram, by 1975 this rose to \$50 (half kg), by the mid 1980s it was at \$125 (half kg). To put this into perspective, an elephant will have about 10kg of tusks on their face. In 1989 C.I.T.E.S. placed the international ban on the ivory trade. And today, ivory is now worth over \$20,000 for a single dead elephants tusk. But if that elephant lived its 70 years, it would generate \$1.6 million in revenue for the tourism industry and all the related cafe's, hotels, restaurants, tour guides, game rangers and so on associated to wildlife. In Jan-Aug (2014), 2,200 dead elephants tusks were confiscated and created a loss in future revenue from tourism of \$4.4 billion. Hence, the need for drone technology.

In the far northern reaches of Mozambique lies one of the most remote and extraordinary places in Africa: Niassa National Reserve. It is a vast wilderness area of 42,000 square kilometers (3rd largest game reserve in Africa) and the same size of Denmark - just with inaccessible areas to vehicles and home 35,000 people and 13,000 elephants, which are ancient creatures just wanting a drink from a waterhole but are met with heavy-calibre bullets from AK47s by people seeing them as vermin and a means to get rich from the illegal ivory trade (the other hot spot for elephant ivory tusk trade is Bumi Hills Zimbabwe, along the famous Victoria Falls Zambezi River). The elephants once again, are coming under increasing attack from poachers. Elephants need to benefit from innovations of drone technology which have revolutionised regular combat.

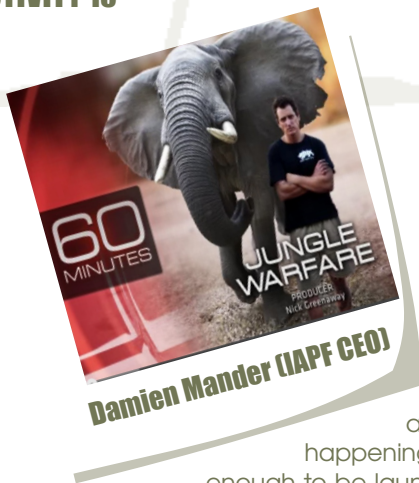
It is now common for heavily armed Tanzanian poachers to cross the mozambique border illegally to take advantage of the remoteness that engulfs game rangers. IAPF CEO Damien Mander and the game rangers no longer wear military uniforms, carry gear that would once them the chance to attack an intruders position or have access to helicopter gunships he once used in Iraq and Afghanistan. The rangers are in bare feet and using old Czech-made AK47 with worn out wooden grips on the sides. The rangers haven't been deployed by an army and no longer take home a wage. The poaching war is being fought by a select few with no joining papers to sign. All that exists is a deep understanding of what needs to be done: bring technology to conservation and transform the battlefield.

Recently, contracts have been granted to Chinese to log the forests surrounding the reserve, increasing the number of Chinese nationalists in the area causing the Niassa elephants to come under threat. In 2011, 3332 new elephant carcasses were counted in the reserve, up by 1372 from previous years. The reserve has been losing up to 6 elephants a day. They needed to think outside the box.

In comes, IAPF Simon Beart - a former Australian Royal Navy Helicopter technician - he approached the IAPF in 2012 and said he would build drones for the IAPF. Within weeks, Simon had the UAV (unarmed, unmanned aerial vehicle) (now called RPAS) ready to test in Niassa (Mozambique - filming of 60 Minutes). Within 3 days, the first drone crashed and was badly damaged, its wings ripped off from the fuselage. With re-adjustments the drone was refitted and back in the air. Soon the UAV (RPAS) located a poachers campfire, an ambush was laid at 5am and took the camp of poachers. A week earlier, a similar raid had ended in firefight, with one ranger shot in the shoulder and a wounded poacher fleeing back to Tanzania. It was the real-time information the UAV provided day and night which let's the rangers now peak over the horizon, rather than walk around on foot for 2 days hoping to find someone or a carcass.

DRONE TECHNOLOGY

The IAPF has bought military derived drone technology to support African Game Rangers in their work



WHAT ARE DRONES? UAS, UAV and RPAS are terms used to describe what we now refer to as remotely piloted aerial systems or RPAS. RPAS are used in situations where manned flight is considered too risky or difficult or the work is repetitive these are all much the same reasons we use robots in other areas of society. RPAS are basically flying robots! RPAS are capable of providing a 24-hour "eye in the sky", 7 days a week. These aircraft can stay aloft for various time periods depending on its fuel type, capacity and payload, loitering over an area and sending back real-time imagery via satellite or conventional radio frequencies of activities

happening on the ground. RPAS range in size from small surveillance and reconnaissance craft, light enough to be launched by hand and often referred to as "an over hill asset". This is because they are usually

used to peer just over the hill or building. RPAS also come in medium-sized armed drones and large spy planes equipped with jet engines, very large and sensitive cameras as well as other intelligence gathering equipment. RPAS are more than just the air vehicles, they are the vehicle plus the payload, plus the ground control station, radio or satellite control data links, data links for sensor information and lets not forget the operators who control them.

WHICH RPAS TECHNOLOGY IS USED BY THE IAPF? The IAPF RPAS program is a scaled down version of a comprehensive military capability, capable of carrying the payload weight (ie camera sensors) for long enough to be useful (3hrs+) It is able to operate in African conditions (hot, high, rough launch strips); is compliant with all African regulations (airspace, export rules); and is affordable. The payload is the most important aspect of any RPAS. The IAPF's payload is called an EO/IR (electro-optical / infra-red) camera. It has one camera operating in the visible spectrum (a high definition colour video camera, 'electro-optical') for day use and one operating in the infra-red spectrum for night-time thermal imaging. Much of the work done by conservation bodies to date focuses on very low cost, electric powered miniature RPAS, essentially radio control models fitted with a camera. While valuable for daylight surveying of small areas, the short endurance and limited payload capability of these vehicles makes them largely unsuitable for conservation activities such as anti-poaching across vast areas of Africa and other parts of the world.

WHY THE IAPF USES RPAS: Poachers operate across remote, inaccessible and dangerous areas by day and night. They operate as single individuals or organised syndicates of up to a dozen or more members with sophisticated weapons and even support facilities. Rangers are frequently unable to successfully locate and effectively disrupt poaching operations due to terrain, large operational areas and lack of ground assets. Having an RPAS capability allows surveillance of a much larger area, provides a night-vision capability and supports direction of ground rangers to the poachers using the data sent by the RPAS. It also assists in the location and tracking of high target species as well as providing mapping and other aerial surveying services.

HOW THE IAPF USES RPAS: Areas to be protected by the IAPF are broken into area grid references of around 20 x 20 km which is a size that can be covered by an aerial asset in a way that offers the highest probability of detecting persons entering the area within a reasonable time. The RPAS is flown utilising GPS waypoints in one of several search patterns along a pre-determined grid, dependant on the terrain, poaching history and wildlife movements. Data from the RPAS sensors are monitored on the ground at a control station and the relevant information is passed onto the ground rangers by radio communications. The ground rangers set out in a multiple person tracking formation to locate suspected poachers, determine their status and apprehend them if required.

QUESTIONS

1. What does the abbreviation RPAS stand for?

Remotely piloted aerial systems

2. What is meant by the IAPF's RPAS 'payload'?

Electro optical/infra red camera (sensors)

operating in visible & night spectrum

3. Describe the IAPF's RPAS (UAV) technology.

The IAPF's remotely piloted aerial system technology is a scaled down version

of a comprehensive military system capable of carrying the payload of camera

sensors for over 3hrs, the ground control station, radio or satellite control data links and operators. The cameras are used

during the day and with infra-red at night using thermal imaging.



DRONE TECHNOLOGY

Questions continued

4. Distinguish between 'standard conservation' and the IAPF's RPAS technology.

Standard RPAS systems focus on very low cost, electric powered miniature RPAS, essentially radio controlled models fitted with a camera, but they have the ability to cover only small areas, travel short distances and carry a limited payload which make them unsuitable for conservation of vast areas. Whereas, the IAPF's remotely piloted aerial system technology is a scaled down version of a comprehensive military system capable of carrying the payload of camera sensors for over 3hrs, the ground control station, radio or satellite control data links and operators and handle the hot conditions of Africa.

5. Explain why and how the IAPF uses RPAS technology in anti-poaching.

Poachers are organised by wealth, highly equipped foreign syndicates which operate across remote, inaccessible and dangerous areas by day and night. They operate with support facilities and rangers are frequently unable to successfully locate and effectively disrupt poaching operations while on foot due to terrain, large and isolated operational areas and lack of ground assets. Having RPAS allows surveillance of much larger areas and at night time.

The IAPF RPAS uses grid references of 20km x 20km, the RPAS is flown utilising GPS waypoints in search patterns along a pre-determined grid determined by the terrain, poaching history, wildlife movement patterns. Data from the RPAS sensors are monitored on the ground at a control station and relevant information is passed onto rangers on the ground by radio communication. Rangers are then able to form a tracking formation and head out towards the intruders for an ambush.

6. Analyse the use of non-weaponised RPAS technology in combating wildlife poaching. For this question, google research: "Accord, Conflict Trends" Issue 3, 2013 (USE THE URL: <http://goo.gl/77fDe1>), (page 4-5).

The use of non-weaponised RPAS technology serves a great purpose in combating wildlife

poaching to manage the transnational crime and terrorist threats being made on wildlife. In Africa, the World Wildlife Fund (WWF) estimated 30,000 elephants were illegally killed by poachers for their tusks in 2012, the highest number of deaths in two decades. Today, poaching is not just a conservation issue, but is equally a terrorism and economic development concern. Throughout Africa, militant and terror organisations are acting with impunity. Since 2008, Al-Qaeda has relied on funds from local organisations (eg Al-Shabaab) to carry out attacks on Western interests. Al-Qaeda in the Maghreb region gets funds from kidnapping and ransom payments, others the drug trade protection to cartels, and the sale of rhino horn (sells for US\$50,000 per kg) and elephant ivory (US\$2,000 per kg) to Asia. Because of high profit margins, Al-Shabaab gets 13-40% of its funds from the sale of rhino horn and elephant tusks. Those funds pay its soldiers wages of US\$300 per year - huge money for the area. The USA President, Barack Obama visited Africa in 2013 to sign an executive order that called for 'enhanced coordination of US Government efforts to combat wildlife trafficking and assist foreign governments in building the capacity needed to combat wildlife trafficking and other related organised crime. This will establish a Task Force on wildlife trafficking to enable an integrated and comprehensive approach to mitigate the skyrocketing levels of rhino and elephant poaching in Africa. Central to this, the ethical use of non-lethal drone technology which has had huge success in Nepal. In Nepal, Google and the WWF partnered to employ surveillance drones in rhino poaching and since the program launched, only two (2) rhinos had been killed compared to one (1) per month prior to the introduction of drones. They work because they provide persistent 'eye in the sky' surveillance over vast difficult detection areas.



DATE:	TOPIC: Geography – Global Issue: Threatened Habitats (Rhino Poaching)																										
TIME:	FOCUS: Group response: IAPF contribute to the civics and citizenship of villagers																										
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA: <table><tr><td><input type="checkbox"/> Teacher driven</td><td><input checked="" type="checkbox"/> Individual</td><td><input type="checkbox"/> Simulation</td><td><input type="checkbox"/> Synthesis</td></tr><tr><td><input type="checkbox"/> Student driven</td><td><input type="checkbox"/> Pairs</td><td><input type="checkbox"/> Hands on</td><td><input type="checkbox"/> Analysis</td></tr><tr><td><input type="checkbox"/> Peer Tutoring</td><td><input checked="" type="checkbox"/> Groups</td><td><input checked="" type="checkbox"/> Identification</td><td><input type="checkbox"/> Experiments</td></tr><tr><td><input checked="" type="checkbox"/> Discussion</td><td><input type="checkbox"/> Teams</td><td><input type="checkbox"/> Problem Solving</td><td><input type="checkbox"/> Technology</td></tr><tr><td><input checked="" type="checkbox"/> Lecture</td><td></td><td><input type="checkbox"/> Storytelling</td><td><input checked="" type="checkbox"/> Puzzles</td></tr><tr><td><input checked="" type="checkbox"/> Stations</td><td></td><td><input type="checkbox"/> Games</td><td><input checked="" type="checkbox"/> OTHER: Sketching</td></tr></table>			<input type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input type="checkbox"/> Analysis	<input type="checkbox"/> Peer Tutoring	<input checked="" type="checkbox"/> Groups	<input checked="" type="checkbox"/> Identification	<input type="checkbox"/> Experiments	<input checked="" type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology	<input checked="" type="checkbox"/> Lecture		<input type="checkbox"/> Storytelling	<input checked="" type="checkbox"/> Puzzles	<input checked="" type="checkbox"/> Stations		<input type="checkbox"/> Games	<input checked="" type="checkbox"/> OTHER: Sketching
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<input checked="" type="checkbox"/> Stations		<input type="checkbox"/> Games	<input checked="" type="checkbox"/> OTHER: Sketching																								
OBJECTIVE(S): Students will learn about: the multiple ways groups like the IAPF respond to the geographical issue of poaching via using their civics and citizenship.																											
PREPARATION: Test the following shortened URLs to make sure the websites still exist to aid students label each drawing: [A] Beehives stop elephant crop raids in Kenya (http://goo.gl/yLfK0) [B] Elephant and human conflicts in Africa (http://goo.gl/PHxVzm); Farmers fighting elephants with chilli fences (http://goo.gl/TU4SDX) [C] Food gardens in used tyres (Jason's Garden wiki) (http://goo.gl/LCrRRJ) [D] African women harvest the baobab tree for income at the markets (http://goo.gl/zXcezM) [E] IAPF school education projects (http://goo.gl/i03P2D) (http://goo.gl/6MSWfb) [F] IAPF anti-poaching free education and training (http://goo.gl/XiQwKj) [G] IAPF Command and Control program (http://goo.gl/1snH6Y) - this has a video to watch - you need to load it up on the smartboard. [H] IAPF Patrolling and tracking education (http://goo.gl/8HYHI4)																											
TIME	INSTRUCTION/METHODS		MATERIALS																								
5 minutes	<u>Instructor:</u> Begin lesson with structure (eg: roll call; classroom standards; introduce lesson). Introduce the lesson: In today's lesson, we will be looking at the importance of addressing the human-wildlife conflict and giving locals the training and skills they need to secure their farms and make money at the markets. The IAPF game rangers develop their civics and citizenship within the local African communities.																										
5 minutes	<u>Instructor:</u> Ask the studnets to open up their activity books to Activity 14. PLAY the IAPF School Video Blog 14.																										
10 minutes	<u>Instructor:</u> Read through the activity. Ask students what they think each picture is showing. This is to make sure they have a basic idea of the drawings (eg: that the drawings show a farm, village, people building fences, IAPF involvement in helping the villages, schools, education and job opportunities – see answers).																										
35 minutes	<u>Instructor:</u> Ask the students to work either: individually, in pairs or small groups to figure out what the IAPF is doing in the African community to demonstrate their civics & citizenship. Write the following shortened URLs on the board. These will be the resources needed for each drawing: [A] (http://goo.gl/yLfK0) [B] (http://goo.gl/PHxVzm); (http://goo.gl/TU4SDX) [C] (http://goo.gl/LCrRRJ) [D] (http://goo.gl/zXcezM) [E] (http://goo.gl/i03P2D) (http://goo.gl/6MSWfb) [F] (http://goo.gl/XiQwKj) [G] (http://goo.gl/1snH6Y) - load video ready for students to watch (follow link to website page, video is ready to play) [H] (http://goo.gl/8HYHI4) Walk around helping students. (Alternatively, you could set this up as 'stations', whereby you print out copies of the information & spread across a number of tables, the class is split into a variety of 'work groups' and the teacher allocates a group to a certain desk/ resource. The stations have only 5 minutes to read and figure out the meaning of the drawings using their table's resources. When the buzzer goes, the students move onto the next table and repeat the above using the new resource.)																										
End of lesson	Dismissing the class: have students stand behind their desks, pick up any rubbish and wait quietly until the students stand silently waiting to be dismissed. If they waste your time by still talking, take up their time at recess or lunchtimes or end of the day.																										

ACTIVITY 14

Watch the IAPF School Video Blog 14

INSTRUCTION

Poaching occurs if communities are poor and in conflict with wildlife

Below depicts the typical lifestyle of African villagers with farms of cattle & crops. But, wildlife constantly wander through their farms eating their crops and/or cattle. The IAPF responds to this human-wildlife conflict by offering game ranger training for a job, free education to villagers on bee hives, chilli farms and Jason gardens. Look at each drawing from A to H. Fill in the boxes with words to capture the scene.



COMMUNITY ASSISTANCE

Use the drawings to answer the questions.

1. Describe why living as a villager or farmer in Africa is difficult.

Village life in Africa is difficult for many reasons. Firstly, the villagers are in constant conflict with the environment conditions to grow crops for food due to lack of access to fresh water, money for seeds and storage facilities for food. Secondly, the villages have to combat the wildlife. The wildlife do not understand village boundaries or borders of countries, they have known travel paths and will eat crops, livestock and drink water from rivers. The villagers and wildlife are in conflict and frequently are injured and even killed when they confront each other. Finally, villagers cannot grow enough food to feed themselves, feed the wildlife and make enough surplus to sell at the markets for income. This means, the villagers cannot send their children to school, their children never learn to read and remain illiterate, which means they miss opportunities to get jobs, health and medical checks because they cannot afford to pay the school fees. The poverty cycle continues.

2. Outline why the bees hives near the fence lines would benefit the villagers.

Bee hives are a remarkable deterrent for elephants and other wildlife. Wildlife do not like the sound of bees (as they know they will be attacked by the bees if they get too close). By surrounding the village boundaries with bee hives made from any materials the villagers can find and use from their local area, the bees will act as a permanent 'guard dog' over the village crops and livestock, the village can grow their crops, have food to eat, and sell honey & excess crops at markets for income.

3. Explain how villagers / farmers and the wildlife are benefiting from the IAPF.

The IAPF is an immediate and direct response group to the issue of poaching and human-wildlife conflict.

1. The first way the villagers benefit from the IAPF is economical. The IAPF 'train the trainers' over 3-4 months in more advanced anti-poaching tactics and techniques. Upon completion of the training, the trainers pass this knowledge onto their own game rangers and the IAPF remain as a support and operations network. The advanced training includes: tracking formations, area and grid referencing systems, navigation and compass orientation, ambush tactics and search and arrest. The training is supplemented with fire management, crop protection via use of bees and chili farming fence lines and food storage systems. The IAPF then equip the game rangers with superior equipment and kits to conduct their operations, this includes: boots, communication radio systems, backpack essential tools (binoculars, mobile phones, crime scene kits, medical kits, warmer clothing for cold night ambushes to name a few) and supplemented income wages for the rangers (this is to increase their morale and professionalism of the industry). This ensures wildlife is better protected from poachers. With more wildlife the more tourists will enter and spend money in the villages, on food in the local markets and in the game parks. With higher tourism comes more jobs for the local villagers. The villagers and farmers become self-sufficient.

2. The second way the villagers / farmers benefit from the IAPF is environmental. By having more educated and skilled game rangers patrolling an area, this means it is less likely a poacher will be able to enter the game park, poison the river system and contaminate the ground water for the villagers and farmers (who dig wells close to their farms for drinking). In addition, the more wildlife in an area the more bio-diverse the area, the more seeds will be spread and the healthier the ecosystem and soil to grow food and feed their livestock. The education of local village trainers in bee hives, chili farming fence lines and Jason's Garden will ensure villagers and farmers a steady alternative to generating an income and reduce the subsistence poaching which occurs due to lack of food. This will help reduce the damage to food chains and complex food webs in the ecosystem.



CHAPTER 7

GOVERNMENT RESPONSE TO THIS ISSUE

This chapter will cover the African Governments' responses to the issue of poaching.

Thanks for studying this geographical issue.

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)																										
TIME:	FOCUS: Government – Responses to Threatened Habitats Poaching (Zimbabwe Government)																										
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA: <table border="0"> <tr> <td><input checked="" type="checkbox"/> Teacher driven</td><td><input checked="" type="checkbox"/> Individual</td><td><input type="checkbox"/> Simulation</td><td><input type="checkbox"/> Synthesis</td></tr> <tr> <td><input type="checkbox"/> Student driven</td><td><input type="checkbox"/> Pairs</td><td><input type="checkbox"/> Hands on</td><td><input checked="" type="checkbox"/> Analysis</td></tr> <tr> <td><input type="checkbox"/> Peer Tutoring</td><td><input type="checkbox"/> Groups</td><td><input type="checkbox"/> Identification</td><td><input type="checkbox"/> Experiments</td></tr> <tr> <td><input checked="" type="checkbox"/> Discussion</td><td><input type="checkbox"/> Teams</td><td><input type="checkbox"/> Problem Solving</td><td><input checked="" type="checkbox"/> Technology</td></tr> <tr> <td><input type="checkbox"/> Lecture</td><td><input type="checkbox"/> Reflective</td><td><input checked="" type="checkbox"/> Storytelling</td><td><input type="checkbox"/> Puzzles</td></tr> <tr> <td><input type="checkbox"/> Stations</td><td><input type="checkbox"/> Persuasive</td><td><input type="checkbox"/> Games</td><td><input type="checkbox"/> OTHER:</td></tr> </table>			<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input checked="" type="checkbox"/> Analysis	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input type="checkbox"/> Identification	<input type="checkbox"/> Experiments	<input checked="" type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input checked="" type="checkbox"/> Technology	<input type="checkbox"/> Lecture	<input type="checkbox"/> Reflective	<input checked="" type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles	<input type="checkbox"/> Stations	<input type="checkbox"/> Persuasive	<input type="checkbox"/> Games	<input type="checkbox"/> OTHER:
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OBJECTIVE(S): Students will learn about: the Zimbabwean governments' response to the poaching of rhinos (ie threatened habitat).																											
PREPARATION: Familiarise yourself with this lesson by: 1. Read the finished closed-passage to understand the Zimbabwean governments' perspective towards poaching. 2. Read the ADDITIONAL INFORMATION below. 3. Watch the video clip about the Vietnamese Embassy (https://goo.gl/cxC2zd) (4.30 minutes) (PS: at start, they speak in Africaans)																											
TIME	INSTRUCTION/METHODS		MATERIALS																								
5 minutes	Instructor: Settle the class as per normal. Introduce the lesson: In the last few lessons, we looked at IAPFs role in promoting jobs, education and income for communities within the threatened habitats. Today's lesson, you will learn about the Zimbabwean governments' response to wildlife poaching threatening the African habitats and future generations welfare.																										
15 minutes	Instructor: Have the students open up to Activity 15. PLAY and watch the Youtube clip called: "Vietnam Embassy was Caught Red-Handed in illegal Rhino Horn Transaction" (4.30 minutes).																										
20 minutes	Instructor: Select students to read each paragraph. PLAY and watch the IAPF videos to counter this: 1. Command and Control: https://goo.gl/Hlc5l0 2. IAPF CEO Damien Mander (audio address to the USA Obama Advisory Council): https://goo.gl/GE9BPE																										
End	Dismissing the class (as per normal)																										

ADDITIONAL INFORMATION: Wildlife Trade Case Study (Zimbabwe)

Zimbabwe was once known globally as the "bread basket of Africa" with a strong economy. But since 1980 when Zimbabwean President Robert Mugabe took power the economy is the worst in terms of human development and economic growth, skyrocketing unemployment rates to 95%, land takeovers (from white land holders, wildlife conservancies and game ranches), and increased hunger. Combine this with the bushmeat hunting, poaching and American trophy hunting the wildlife population is quickly being eradicated. Many Zimbabweans live in poverty and slums and have turned to bushmeat poaching to feed their hungry families and the Mugabe government initiated its own campaign to allow police and defense forces to alleviate hunger by killing wildlife.

To make matters worse, in 2005, the government instructed national park rangers to shoot 10 elephants for a barbecue in honor of the country's 25 years of independence and started allowing national park officials to kill wildlife as part of their rations. It now permits wildlife to be killed to feed its military forces. In 2015, Mugabe ordered the following to be shot for his 91st birthday party: 2 elephants, 2 buffaloes, 2 sabres, 1 lion and a herd of impala to Mugabe's birthday soiree of about 20 000 guests at the Victoria Falls spa / golf lodge estimated to have cost \$1 million.

Bushmeat and commercial poachers operate throughout the country with virtually no restriction. An audit by Zimbabwean officials revealed that poaching was rampant partly because of a lack of rangers to patrol and enforce wildlife laws. Because of Mugabe's white land seizure program, only 14 game ranches and 84 wildlife conservancies still exist. Poachers emptied a ranch in Matabeleland of its 6,000 animals, including many of its 50 endangered black rhinos. Rangers who want to enforce Zimbabwe's wildlife laws are not able to engage in anti-poaching patrols due to a lack of fuel - hence the urgency of anti-poaching NGOs. In July, rangers arrested 285 fish and wildlife poachers though it is unclear if the arrests, given the severity of the problem and lack of sufficient criminal penalties, will reduce poaching in the country.

Zimbabwe's national parks are in disrepair, with no funds to operate pumps to provide groundwater to wildlife, which has forced elephants and other animals to find habitat and flee poachers by crossing into Zambia. But most are not so fortunate. As a result of a controversial decision by CITES member countries in 1997, Zimbabwe was authorised to sell ivory from its ivory stockpiles. Sadly, this has led to an increase in elephant poaching in Zimbabwe and neighboring countries to fulfill China's demand for ivory. Indeed, during the first 7 months of 2006, Chinese dealers purchased 30 tons of ivory tusks, representing 2,250 dead elephants from Zimbabwe's Parks and Wildlife Management Authority.

Mugabe's followers ignore national & international wildlife laws by allowing sport hunters to operate virtually without restriction on game ranches throughout the country. Many insiders ignore arbitrary hunting quotas, allow hunters to kill animals (including endangered species) inside protected wildlife areas, use fake permits, & fail to keep track of wounded wildlife. They often reap significant profits from such operations.

Despite the US government declaration of Zimbabwe as "an outpost of tyranny" & its imposition of economic sanctions against 128 of Mugabe's government, 80 to 90% of the hunters who visit the country are from the USA. Though clearly concerned about the corruption within Zimbabwe, the US Fish and Wildlife Service government has ignored the significant sums of money being spent by USA trophy hunters in Africa. The most recent and controversial USA trophy kill was of Zimbabwe's Cecil, the lion (2015).



The Zimbabwean government keeps confiscated rhino horn in a vault. If rhinos became extinct, what happens to the value of the rhino horn?

INSTRUCTIONS

Read the passage below. Watch the videos and answer the questions.

Zimbabwe's government has mixed policies & desires when it comes to the international C.I.T.E.S. ban on rhino horn trading (1977). C.I.T.E.S. is the Convention on International Trade in Endangered Species of Wild Fauna and Flora & is an international agreement between governments. Its aim is to ensure international trade in wild animal and plant specimens does not threaten their survival. In 1977 C.I.T.E.S. banned rhino horn trade globally. Any sale of rhino horn became illegal, globally.

On the one hand, the Zimbabwean government - pre Mugabe - was a keen supporter of the international ban on rhino horn trading. The rhino population was under heavy attack by highly equipped foreign syndicates with AK47 weapons smuggled in from Zambia. In 1984 the Zimbabwe strengthened their parks department by creating "Operation Stronghold" to stamp out illegal hunting & rhino poaching. "Operation Stronghold" provided additional funding to train & educate game rangers & gave game rangers a 'shoot to kill' policy (supported by the "Protection of Wildlife (Indemnity) Act of 1989"). To protect 1 black rhino & adequately equip & fund wages in their parks department it was estimated the Zimbabwe's government would need to spend US\$400 per square kilometre.

But Amnesty International & the Zimbabwian side of the Zambezi River didn't like Zimbabwe's shoot to kill policy because it violated human rights. As a result, this badly affected the relationship between the two countries.

But in 1987, Mugabe became president of Zimbabwe. Things changed. Between 1988 and 1993 Mugabe dropped the wildlife enforcement budget from US\$24 per square meter to US\$2.63 per square meter crippling the 'anti-poaching' efforts of the Zimbabwean game rangers. This caused 173 under-paid & under-equipped game rangers to patrol 31,000 kilometres of savanna. Many game ranger deaths occurred since that change.

Mugabe's government regretted Zimbabwe's support of C.I.T.E.S. rhino horn trade ban as they realised the ban only allowed them to capitalise on the tourist industry. The ban eliminated their ability to make money from rhino trophy hunting & exporting rhino horn to the increasingly wealthy countries of Asia and Middle East. The potential trophy fee would be up to US\$250,000 & the Zimbabwean government argued the money would be used for rhino conservation such as, providing armed police to watch over rhinos in the national parks. (However, Zimbabwean police are grossly under-paid on US\$100 month & would live in the savanna for weeks at a time making them highly unmotivated & easy targets for corrupt foreign syndicates).

Police officers have been placed in game reserves, however they are easily targeted by the wealthy and illegal trading syndicates (eg: Mafia, Triads and Yakuza) & Taiwanese/Chinese business owners which realise rhino horn is an "investment" & built stockpiles of rhino horns. If the rhino became extinct this would drive up rhino horn values. So, poaching cartels are organised to kill rhinos, even the babies or de-horned rhinos with only a small stub on their face.

Today, Mugabe's Zimbabwean government wants to legalise the Asian/Middle Eastern rhino horn markets. Trade with Asia is too important for African governments wealth. The Zimbabwean government want C.I.T.E.S. to lift the ban & have been criticised for blocking C.I.T.E.S. efforts to impose trade sanctions against the Asian/Middle Eastern markets. The Zimbabwean government have done this to protect their trade connections & protect the potential Asian/Middle Eastern markets if rhino horn trade becomes legalised. As a result, the anti-poaching industry has become highly fragmented and isolated, the rangers have limited access to professional training & operational support in anti-poaching, they suffer from low paid, non-support & suffer from low morale, distrust and lack incentives to be diligent rangers, & the current NQF qualification 'Field Ranger 1' is not adequate to address the true operational needs of game rangers in the 21st century.

As a result, the Zimbabwean parks department looked towards the international community & NGO's (ie non-government organisations) such as the IAPF, Thin Green Line & Save the Rhinos to fund game ranger training, education, wages & equipment needed to combat the foreign syndicates killing African rhinos. This is where the IAPF fits in. The IAPF serves as an immediate direct action response team to poaching on the front lines. Its aim is to stop the haemorrhage via: train the trainer, equipping reserves with kits and getting the international community to sit up and help. The medium term goal is to deliver an accredited standardised anti-poaching system of training & operations for safety & security in rhino conservation. It will be the first ever: Anti-Poaching Game Ranger qualification & will be dispersed globally via an online, anti-poaching game ranger training academy, called: Command and Control. The overall goal is to provide long term, continent wide, effective protection for rhinos & the surrounding ecosystems.

Watch the IAPF introductory video — Command and Control — <https://goo.gl/Hlc5l0>

Since 2012, the IAPF have identified FOUR (4) requirements to improve rhino conservation: firstly, on the ground rhino surveillance & anti-poaching units need strengthening with new strategies, tools & resources; secondly, security & law enforcement need to be strengthened & coordinated at a national & regional level; thirdly, there needs to be public education & awareness to curb rhino horn demand & illegal trade; fourthly, our reach needs to be expanded to influence policy makers, financiers & government officials at the highest appropriate levels.

Watch the IAPF address to USA Obama Advisory Council (audio video) — <https://goo.gl/GE9BPE>

GOVERNMENT

Questions

1. What does the abbreviation C.I.T.E.S. stand for?

Convention on International Trade in Endangered Species (of Wild Fauna and Flora)

2. What is the Zimbabwean governments stance on the rhino horn trade ban?

Zimbabwe's stance on wildlife trade (especially the rhino horn) is mixed. On the surface, Zimbabwe's government supports the CITES ban & has national laws to protect wildlife from poachers. Yet, it will counter their own laws by killing the wildlife for celebrations & blocks CITES sanctions. Zimbabwe wants the ban lifted with Asia. In addition, despite Mugabe evicting white land holders, Zimbabwe permits USA hunters (for a fee) to kill the wildlife in various parts of Zimbabwe.

3. Describe how governments have affected game rangers and the anti-poaching industry.

Zimbabwe's government negative actions towards wildlife and the white community has resulted in the national parks department being under-funded with wildlife enforcement budgets cut from US\$24 per square meter to US\$2.63 per square meter (1988 - 1993) for the task of patrolling extensive areas of game parks from This has caused the anti-poaching industry to become highly fragmented and isolated, game rangers suffer from low morale, low wages (less than \$150 per month), no equipment or operational support. Game rangers have become distrusting and non-effective.

4. Describe the IAPF approach to the anti-poaching industry.

The IAPFs approach to the anti-poaching industry has been immediate and direct response to stop the haemorage of damage. The IAPF are on the frontlines with the game rangers and addresses the global community with boards in South Africa, Australia, USA and soon to be the UK.

The IAPF began in 2009 with a training academy in Zimbabwe. It had game rangers from a variety of national parks in Africa train for 3-4 months on the ground with IAPF CEO Damien Mander for free on location, free medical help and accommodation. The rangers were taught a series of skills: ambush tactics, search and arrest, navigation, are and grid referencing, operational security, tracking formations and tracking. The training concluded with days of mock-poaching simulations and scenarios with the rangers out in field to successfully catch our 'poachers'.

During that time, the IAPF began the work of gaining the first ever anti-poaching qualification in Africa, however ongoing red-tape has slowed the progress and resulted in one level of the qualification being created: Train the Trainer.

In more recent times, the IAPF has been confined to training trainers only (not permitted to train any game rangers directly due to government red-tape and corruption to slow the inroads being made), equipping the game parks with specialised patrol and tracking equipment kits, medical kits and is working towards the drone (RPAS) technology fleet. The IAPF liases with a variety of NGOs domestically and internationally such as the Thin Green Line, Save the Rhino, Jane Goodalls Institute, National Geographic, The Australian Rhino Project, and Conservation Guardians to name a few to equip the reserves with the necessary kits and training. In addition, the IAPF have numerous projects of anti-poaching underway including: the Greater Lebombo corridor (Mozambique side of Kruger National Park), Bumi Hills (Zimbabwe) and Niassa (Mozambique) the current hot spots for poaching of rhino and elephant. With more funding, the IAPF will secure the first ever anti-poaching training academy online (called Command and Control) for any game park or game ranger to access for their ongoing education and cutting edge tactics to counter well armed highly organised criminal foreign syndicates and rebels using poaching as a means to fund terrorist activities. The online academy will be able to counter corrupt governments.

ACTIVITY 16

LESSON PLAN

DATE:	TOPIC: Geographical Issue: Threatened Habitats (Rhino Poaching)			
TIME:	FOCUS: Government – Social Justice and Equity			
INSTRUCTOR (S):	STUDENTS WILL BE ENGAGED VIA:			
	<input checked="" type="checkbox"/> Teacher driven	<input checked="" type="checkbox"/> Individual	<input type="checkbox"/> Simulation	<input type="checkbox"/> Synthesis
	<input type="checkbox"/> Student driven	<input type="checkbox"/> Pairs	<input type="checkbox"/> Hands on	<input checked="" type="checkbox"/> Analysis
	<input type="checkbox"/> Peer Tutoring	<input type="checkbox"/> Groups	<input type="checkbox"/> Identification	<input type="checkbox"/> Experiments
	<input type="checkbox"/> Discussion	<input type="checkbox"/> Teams	<input type="checkbox"/> Problem Solving	<input type="checkbox"/> Technology
	<input type="checkbox"/> Lecture	<input checked="" type="checkbox"/> Reflective	<input type="checkbox"/> Storytelling	<input type="checkbox"/> Puzzles
	<input type="checkbox"/> Stations	<input type="checkbox"/> Persuasive	<input type="checkbox"/> Games	<input type="checkbox"/> OTHER:
	OBJECTIVE(S): Students will learn about: social justice and equity within a threatened habitat.			
PREPARATION: Familiarise yourself with the following as this lesson has difficult concepts. May need TWO (2) lessons:				
1. Read the analogy material about the running race (see INSTRUCTIONS)				
2. Watch the TEDx Talk from Namibia on Social Justice: https://goo.gl/2XYzdF (17 minutes)				
3. Watch the IAPF TEDx Talk (Social Justice for wildlife) https://goo.gl/IKnX0u (13 minutes)				
4. Read Question 3-4 and the POTENTIAL IDEAS FOR STUDENTS to help with alternative ideas - below.				
5 minutes	<u>Instructor:</u> Settle the class as per normal. <u>Introduce the lesson:</u> In the last few lessons, we’ve looked at the IAPFs role in helping local communities reduce elements of global inequality and government response to poaching. In this lesson, we look into how governments can promote and sustain social justice and equity within communities of threatened habitats.			
5 minutes	<u>Instructor:</u> Ask students to open up Activity 16. Read through the opening paragraphs / analogy. Ask the students to look at the drawing: an analogy of a running race & sandwich prizes - for equity and social justice concepts. Ask students to tell you what they see in the drawing: people starving, over-weight person, wheelchair bound, athlete and a broken leg). Ask the students who they think would win the game and why: answers may include: the athlete– he’s fitter, got no weaknesses. Ask them ‘would the race be fair?’ Hopefully,they’ll say it is un-fair. This kind of provoking questions may get the students thinking about ‘fairness’ and what it means. The drawing is meant to represent the: diversity of abilities within a community; that people are not always equal & sometimes stronger people or businesses abuse and take advantage of weaker community members for their own personal benefit; that people will do something about the inequality (ie promote equality). Explain that to promote ‘equality’ everyone needs to get the same opportunity or chance to race. When students understand this ask them to write down what they think ‘equality’ means. Walk around and help students.			
30 minutes	<u>Instructor:</u> Have the students re-look at the drawing again. But this time, at the sandwiches. Ask them should everyone in the drawing be given an equal share of the sandwiches or should some members get more or less due to their situation? Hopefully, students will see people in poverty need more sandwiches than over-weight people (ie: the drawing shows: ‘marginal groups’ in society need to be given special benefits in order to give then more equality and thereby promotes ‘social justice’). Discuss how governments in Africa could promote more social justice in Africa. For example: better institutions in Africa such as: removal of corrupt elections (Mugabe has been in power since 1980); giving free school education rather than having to pay fees; consistency by the government (if Mugabe says he backs CITES then stop legal hunting in Zimbabwe by USA & European citiziens); stabilise the government. PLAY TEDx Talk (Namibia) on Social Justice: https://goo.gl/2XYzdF (17 minutes) (let it play in the background as students answer Question 3). Ask tudents to write down their understanding of ‘social justice’. Walk around helping students.			
30 minutes	<u>Instructor:</u> Now prepare students for Question 4 about wildlife justice in Africa. - Wildlife/animals should have legal justice rights: Do you agree or disagree? Justify. OR - The government should broaden its definition of “social justice” to include animals: Do you agree or disagree? Why? PLAY Youtube TEDx Talk by IAPF CEO Damien Mander: https://goo.gl/IKnX0u (13 minutes) Ask students to write an answer (see POTENTIAL IDEAS FOR STUDENTS to help with alternative ideas)			

POTENTIAL IDEAS FOR STUDENTS

Wildlife/animals could have legal rights (agree) because wildlife/animals is another group within society being abused needing protection; laws are to protect living standards & promote a just and fairer society, animals make up the fabric of our lives; laws are created by solicitors interpreting the law.

Government laws could promote animal welfare (agree) because governments write statute laws for its citizens to live by; they are the voice of the people; set standards for a community & protect living things within their communities from abuse.

Wildlife/animals should not continue to be counted as property (agree) because wildlife/animals are forced by people to be their property or face abuses; wildlife/animals should be left in their natural habitats; wildlife/animals have feelings, raise families and fend off predators – similar behaviours to people.

The government could broaden their definition of social justice to include animals (agree) because definitions are human-made; over the last 100 yrs there has been ongoing broadening of human right groups, now it's wildlife/animals turn in this journey.

ACTIVITY 16 ANSWERS

Poaching is a complex issue and concerns globalisation, inequality, slums, poverty and wildlife. To stop poaching, we need a deep understanding of the social justice and equity concerns within a community. Humans are doing the poaching, so we must look at their needs and address them. Maybe, we need to adjust our definition of what constitutes 'social justice' and 'equity'. Maybe, the definition of these terms need to be broadened to embrace 'all living things'. The IAPF discusses the goals of 'social justice' and 'equity' for all living things by using an analogy.

INSTRUCTIONS

Read the following example and drawing, then answer the questions.

Example: Imagine there was a running race. Everyone that wanted to run was invited. The runners all lined up along the start line. But the runners had mixed abilities: one was fit, one was crippled, one was starving, one was very overweight. The fair thing to do was to give everyone an equal or same opportunity to run in the race in order to win the overall prize of 10 sandwiches. This showed 'equality', everyone started from the same place.

Who do you think would win the race and win all the sandwiches?

But, is it 'socially just'? Is it 'socially just' if the fastest and fittest person in the race was to win and get all the sandwiches? Does the fit healthy person really need them all? Or does the starving hungry person need it more? And, if so, how many sandwiches would be the most socially just amount to distribute between the fit winner and the starving hungry person? Is it more 'socially just' if the sandwiches were given out based on the person's 'need'? This would mean that sometimes it is right to give 'more' to those marginalised members of society than those that don't need as much. This would be the 'equitable' and 'socially just' thing to do.

GOVERNMENT

SOCIAL JUSTICE AND EQUALITY



Questions

1. Describe the term 'equality'. Equity is when everyone is given the same opportunity in life (eg: access to fresh water, education, food and the basics of life)
2. Describe the the term 'social justice'. Social justice is when the marginalised groups are given priority to basic needs over others which already are established and in less need.
3. Could African governments do more to promote 'social justice' in Africa? How? And would they? African governments could do a variety of actions to promote social justice in Africa. For example, through improvement in institutions which represent the vast amount of citizens needs, they need to listen to the civil protests, and support on-going public participation and engagement between business, government and civil society. They need to provide access to justice, good governance, accountability, transparency, socio-economic rights, an active citizenry and a strong and effective civil society. But governments will not do this, people need to stand up and make them end corruption. The people must speak up and get involved in gaining their own social justice, the youth need to stand up and make governments accountable. To do this, the people need to get inspiration and get confident, stand up for social justice.

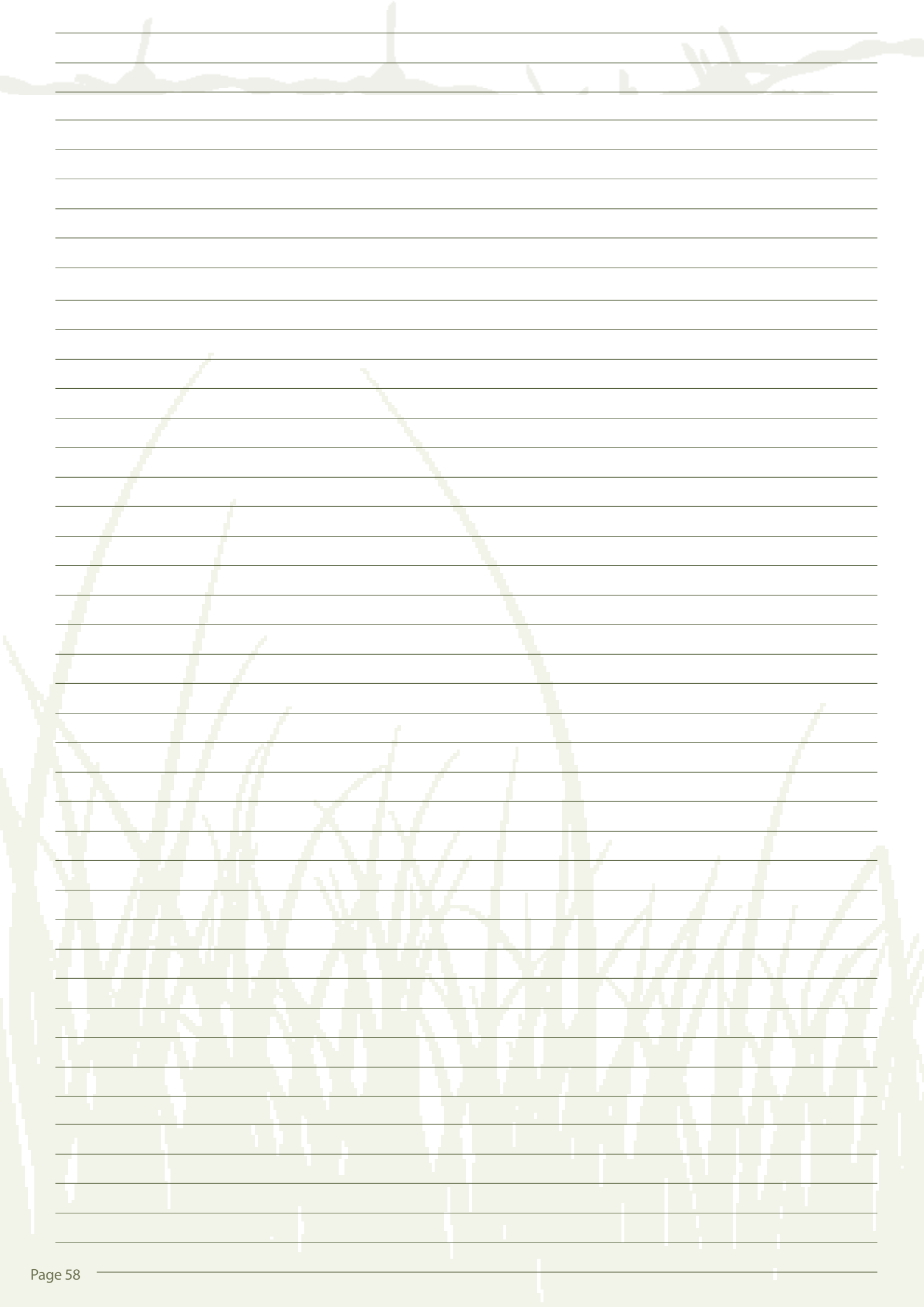
CLASS NOTES

Advanced question

5. Choose ONE of the following statements and answer in full sentences.

- Wildlife/animals should have legal justice rights: Do you agree or disagree? Justify. OR
- The government should broaden its definition of "social justice" to include animals: Do you agree or disagree? Why?

Students may need to reflect and think deeply about this question. It will be a personal response.



Hi everyone,

Well, you've made it to the end, congratulations. I just wanted to say thank you for getting in and learning about the plight of these little guys here in Africa. They're pretty cute when you get to know them. You might not know it yet, but one day you'll be the one that invents revolutionary water devices so everyone has fresh, clean water to drink, or inspires global peace acceptance things we're to be a cause you're away world

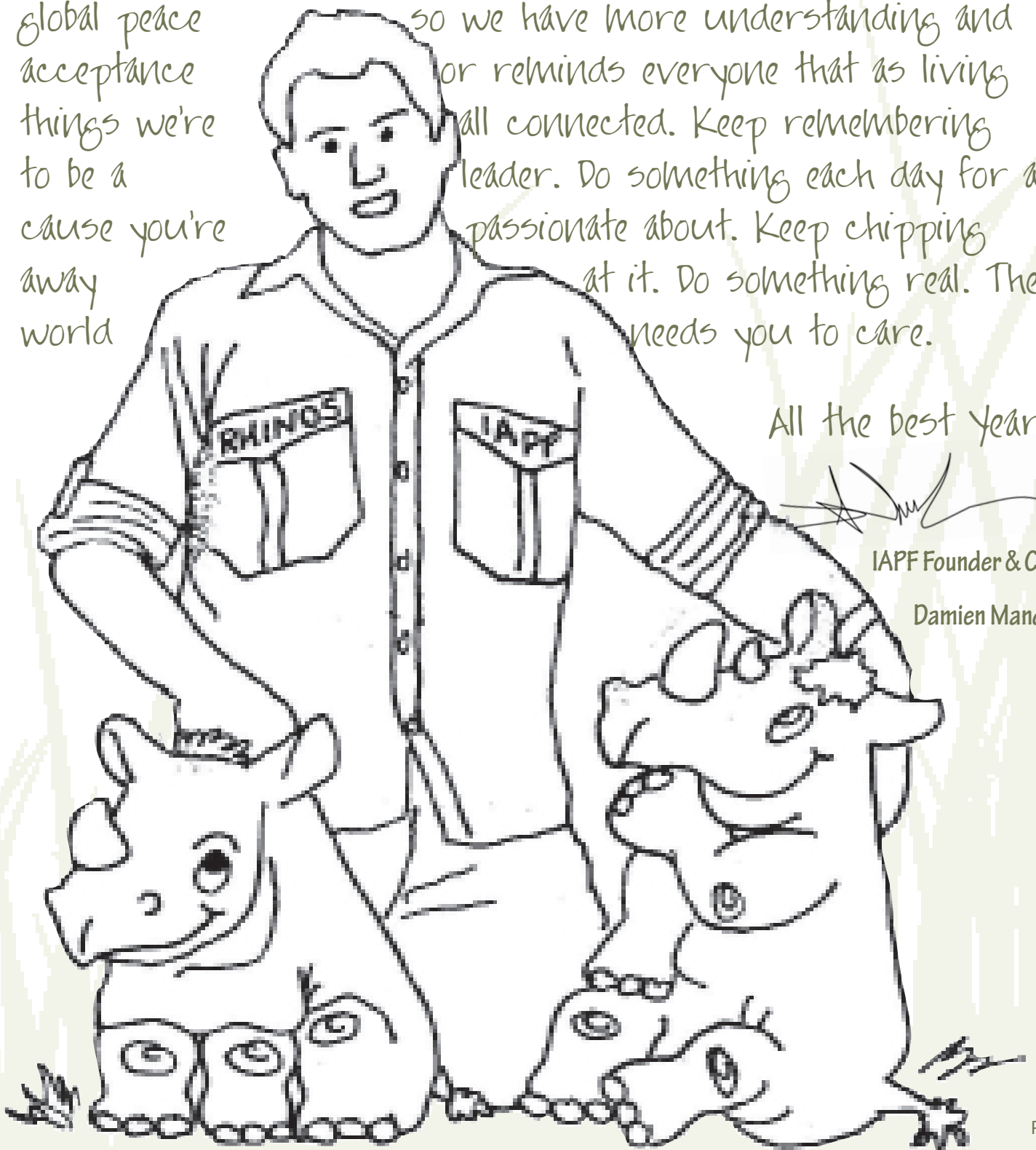
so we have more understanding and or reminds everyone that as living all connected. Keep remembering leader. Do something each day for a passionate about. Keep chipping at it. Do something real. The needs you to care.

All the best Year 8!



IAPF Founder & CEO

Damien Mander



PLEDGE

TO BE A member of active citizenship

I, hereby pledge to practice remembering to think, act
and educate others and myself to be the best global citizen I can be.

I pledge I will wake up and remember to help other living things have a better existence every
day. I will always remember I CAN & WILL MAKE A DIFFERENCE.

I pledge I will make a positive difference to my local community, country and world by showing
all living things, both human and animal, kindness & patience & that I will improve as I get
older.

I pledge I will grow up and support domestic and/or global organisations to give all others,
animal and human a better quality of life – either with my time and/or finance.

I pledge to honour and aspire to being a person of great:

- integrity
- commitment
- wisdom
- respect

I pledge to protect and safeguard 'mother nature' even when it is hard.

I pledge to develop my civics and citizenship to become a valuable member of society within
the global community.

I pledge I will be a force for good because I AM A LEADER.

Signed

Date



Damien Mander

KEEP IN CONTACT

1. IAPF School Facebook page:

www.facebook.com/IAPF-School-Education

2. IAPF website page:

<http://www.iapf.org/>

3. Dr Jane Goodall (IAPF Advisory Committee)

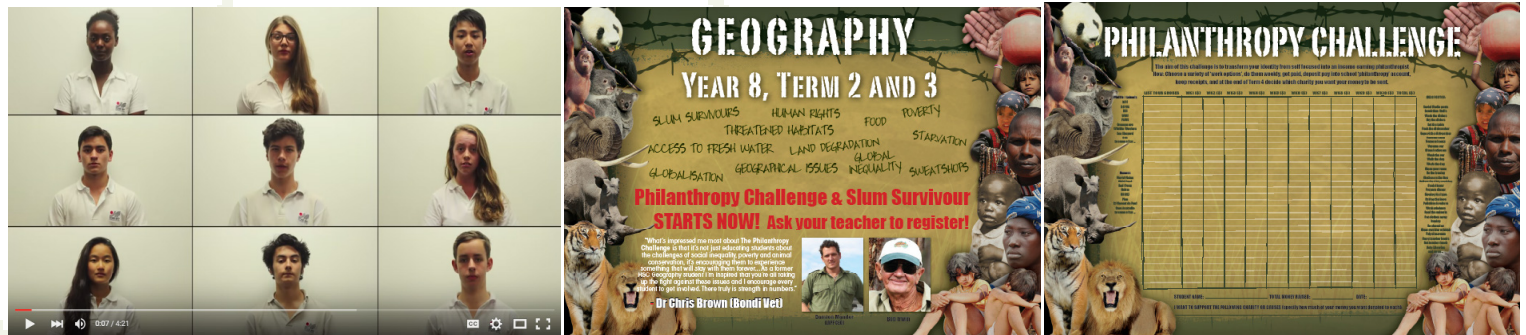
<http://www.janegoodall.org.au/>

EXTRA CURRICULAR

1. The Philanthropy Challenge

SCHOOLS: 10 - 20 week challenge for students to earn money for charities via doing home chores, school chores or social media posts. But, the money being paid is low like a sweatshop worker (eg 10 cents - \$5.00 per chore). Money raised goes to any charity the student wants: local, regional, domestic, international and on any charity cause they want to help: human, wildlife and / or the environment. See the IAPF website for further details.

Watch: The Philanthropy Challenge (URL: <https://goo.gl/2waFgy>) and IAPF School Video Blog 15



2. Slum Survivor simulation

SCHOOLS: 48 hour challenge for students to live on the school grounds like a sweatshop worker in a slum. This simulation has been inspired by TEAR (see: <http://www.tear.org.au/resources/slum-survivor>) which created the adult slum survivor experience. Geography teachers were inspired by TEAR and have developed a school version to enrich geography students studying globalisation, global inequality and threatened habitats. The students are put through a series of challenges:

- shelter building, water carrying, rubbish sorting, health epidemics, poaching, crime, literacy, food shortages and many more. Teachers wanting an Instructional Manual on the simulation, please feel free to contact the IAPF School Education facebook page.





