

# MEET THE PENGUINS



LEARNING AND ACTIVITY BOOK  
PRIMARY SCHOOL



Global Penguin Editions







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## CONTENTS

- 2** PREFACE / EDUCATION PROGRAM
- 3** ACTIVITIES
- 4** WHICH ANIMAL IS IT?
- 5** DO THEY HAVE DULL COLOR?
- 6** A LAYER OF FAT... WHAT IS IT FOR?
- 7** YEAR AFTER YEAR...
- 8** THERE ARE MANY PENGUINS!
- 10** SHARING ENVIRONMENTS
- 12** BE CAREFUL!
- 13** YOU CAN HELP FROM YOUR HOME; SEPARATE YOUR GARBAGE!
- 14** OTHER HUMAN THREATS
- 15** FIND OUT WHAT THE SCIENTIST CARRIES IN HIS BACKPACK WHEN HE GOES TO THE COLONIES TO STUDY THE PENGUINS
- 16** THE POWER OF PROTECTED AREAS
- 17** HEALTHY OCEANS FOR PENGUINS AND OTHER WILDLIFE
- 18** INTERESTING PENGUIN FACTS!
- 19** GLOSSARY

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# PREFACE

There are so many fantastic things to appreciate and admire about penguins. They are remarkably special animals whose role in marine habitats is so important in preserving a healthy planet. I was 3 years old when I first heard about penguins. My grandmother, Melania, used to tell me about her experiences when she visited penguins on the Patagonian coast of Argentina at the beginning of the last century. These stories allowed me to appreciate and connect more deeply with nature.

First I was very concerned about oil spills, which killed tens of thousands of penguins every year. I started rescuing oiled penguins on beaches, but decided to study at university to become a more effective help to them. Since 1990, I have been working in penguin research and conservation.

Eventually, the idea of working for penguins on a larger scale emerged and I created the Global Penguin Society ([globalpenguinsociety.org](http://globalpenguinsociety.org)), an international organization dedicated to conservation through science, education and habitat protection for the world's 18 penguin species.



Dr. Pablo García Borboroglu

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## EDUCATION PROGRAM

The Global Penguin Society's education program promotes conservation values and care for the environment through penguins.

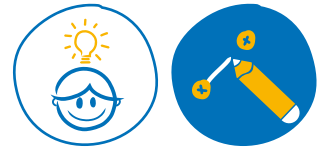


We organize trips for communities and schools to visit the penguin colonies, so that people can get to know the penguins and understand the importance of protecting them. In addition, we give lectures and donate books and educational material. We also carry out global educational initiatives to engage both children and adults. These include digital educational guides, material on our website, live classes via satellite from remote penguin colonies and conferences in multiple countries.

We are convinced that receiving a conservation message at an early age is essential for the next generation to value and protect penguins and the coasts and oceans they inhabit.



# WHICH ANIMAL IS IT?



CONNECT THE DOTS FROM 1 TO 20.

## SALT GLAND

REMOVES EXCESS SALT FROM THEIR FOOD AND FROM THE SEAWATER THEY DRINK.

## EYES

ADAPTED FOR EXCELLENT UNDERWATER VISION AND TO SEE ON LAND.

## BEAK

STRONG, USEFUL FOR DEFENDING ITSELF AND CAPTURING PREY.

## BODY

ROBUST AND COVERED WITH VERY SMALL FEATHERS.

## FEATHERS

PERFECTLY INTERWOVEN. TRAP A LAYER OF AIR THAT WORKS LIKE THERMAL INSULATION AND FACILITATES BUOYANCY AND WATERPROOFING.

## BONES

ARE NOT VERY POROUS, THEY ARE SOLID AND HEAVY, WHICH MAKES DIVING EASIER.

## FLIPPERS

ELONGATED AND FLATTENED, ADAPTED ONLY FOR SWIMMING.

## SKIN

THERE IS A LAYER OF FAT UNDER THE SKIN THAT HELPS IT TO MAINTAIN ITS BODY TEMPERATURE.

## BROOD PATCH

AREA WITHOUT FEATHERS TO INCUBATE THEIR EGGS.

## WEBBED FEET

THEY HAVE THREE LONG FRONT TOES JOINED BY A MEMBRANE, AND A SMALL, FREE HIND TOE.

## UROPYGIAL GLAND

SECRETES AN OIL THAT THE PENGUIN DISTRIBUTES WITH ITS BEAK OVER ITS FEATHERS TO HELP KEEP THEM WATERPROOF.

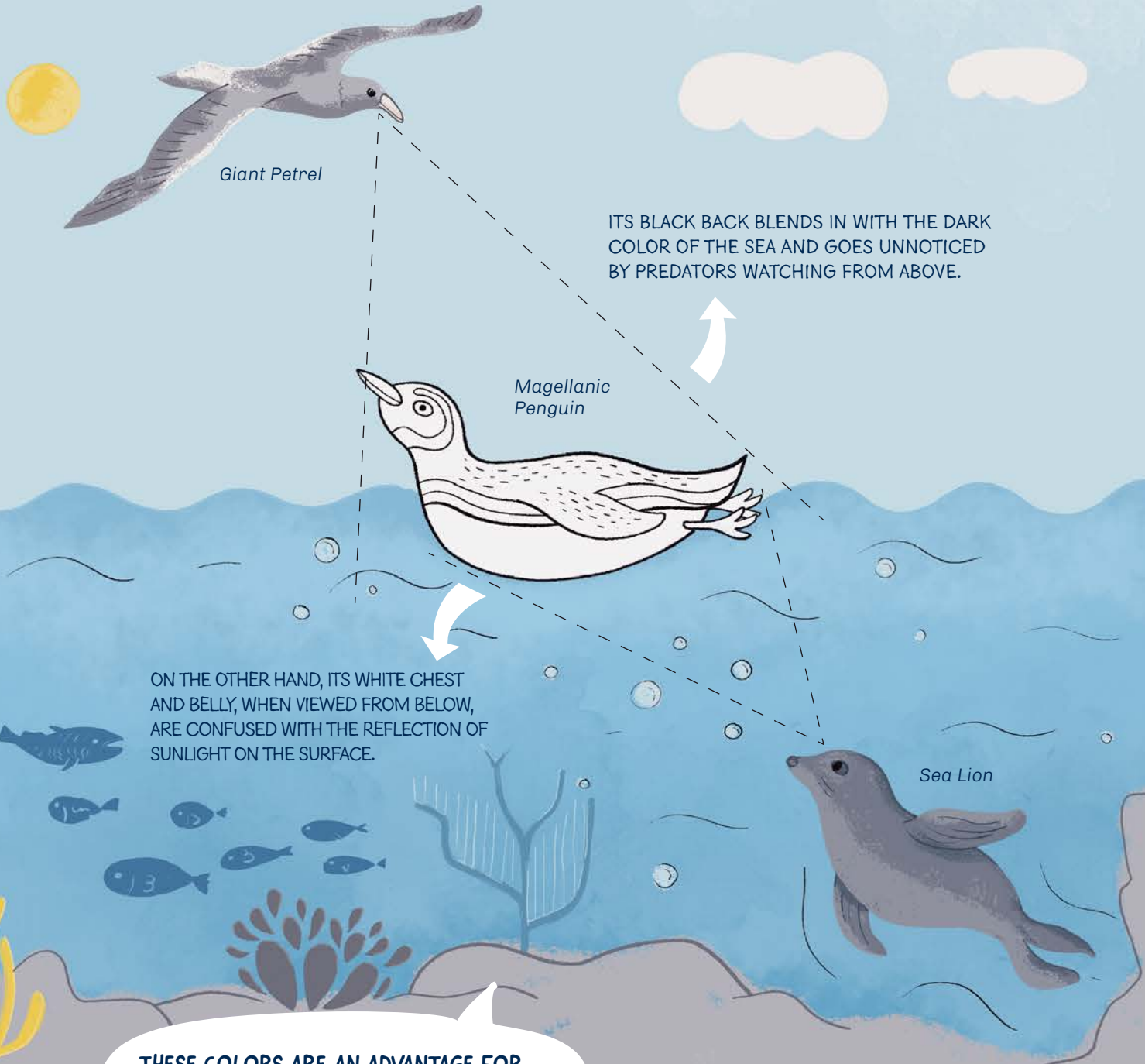


PENGUINS ARE NON-FLYING SEABIRDS AND VARY IN SIZE, DEPENDING ON THE SPECIES.

# DO PENGUINS HAVE DULL COLORS?



COLOR IN THE PENGUINS WITH THE MOST COMMON COLORS ON THEIR BODIES



Giant Petrel

ITS BLACK BACK BLENDS IN WITH THE DARK COLOR OF THE SEA AND GOES UNNOTICED BY PREDATORS WATCHING FROM ABOVE.

Magellanic Penguin

ON THE OTHER HAND, ITS WHITE CHEST AND BELLY, WHEN VIEWED FROM BELOW, ARE CONFUSED WITH THE REFLECTION OF SUNLIGHT ON THE SURFACE.

Sea Lion

THESE COLORS ARE AN ADVANTAGE FOR THE PENGUIN: ITS PREY AND PREDATORS CANNOT EASILY SEE IT.



## CURIOUS FACT

DID YOU KNOW THAT ONLY ONE SPECIES OF PENGUIN DOES NOT HAVE BLACK FEATHERS? IT LIVES IN AUSTRALIA AND NEW ZEALAND. IT IS THE BLUE PENGUIN. IT IS THE SMALLEST OF THEM ALL. HERE WE SHOW IT YOU...



# A LAYER OF FAT... WHAT IS IT FOR?



## EXPERIMENT TOGETHER WITH TWO CLASSMATES... YOU NEED:

- 1 LATEX GLOVE (CAN BE ONE FOR WASHING DISHES).
- 1 PLASTIC BAG THAT FITS YOUR HAND.
- 1 MEDIUM OR LARGE BOWL.
- 1 SPOON.
- 1 STOPWATCH.
- LOTS OF ICE CUBES.
- NOTEBOOK AND PENCIL.
- ANIMAL COOKING FAT (LARD) OR CRISCO VEGETABLE OIL SHORTENING.
- COLD WATER.
- MASKING TAPE.



OBJECT OF STUDY	BARE LEFT HAND	GLOVED RIGHT HAND, DIPPED IN LARD OR CRISCO
ASPECTS		
MARK WITH AN X WHICH HAND CAME OUT OF THE COLD WATER FIRST		
INDICATE HOW LONG IT MANAGED TO WITHSTAND THE COLD		

### ANALYZE:

A) WHICH HAND CAME OUT OF THE BOWL WITH COLD WATER FIRST?

WHY WOULD ONE HAND HAVE RESISTED MORE THAN THE OTHER?

WHAT DOES THIS EXPERIMENT REPRESENT?

## STEPS

Each participant will choose a role: assistant, technician and **researcher**.

**1** The **technician** fills the large bowl with cold water and adds the ice cubes.

**2** The **researcher** will use only one glove placed on the right hand, while the left hand will remain bare. To ensure that the glove fits tightly masking tape can be wrapped around the wrist.

**3** The **technician** will fill a bag with the lard or crisco. The **researcher** will dip the gloved right hand into the bag containing the lard or crisco, ensuring that it is totally submerged in it.

**4** The **assistant** will have a stopwatch or timer available to measure the time that each hand of the researcher can stand being immersed in the freezing water. The **technician** will be provided with a notebook to record the data in the table below.

**5** The researcher will submerge both hands at the same time and remove them when he/she can no longer withstand the cold.

### INTERPRETATION OF DATA IN THE EXPERIMENT:

THIS EXPERIMENT SHOWS HOW FAT ACTS AS A THERMAL INSULATOR, IN THE SAME WAY AS THE LAYER OF FAT UNDER THE PENGUIN'S SKIN INSULATES IT FROM THE COLD.

### CONCLUSION:

PENGUINS WITHSTAND THE COLD THANKS TO THE LAYER OF FAT UNDERNEATH THEIR SKIN WHICH SERVES AS A THERMAL INSULATOR, ALLOWING THEM TO KEEP THEIR BODIES WARM. IN ADDITION, THE FEATHERS PROVIDE WATERPROOFING AS THEY ARE COATED WITH OIL FROM THE UROPYGLIAL GLAND.

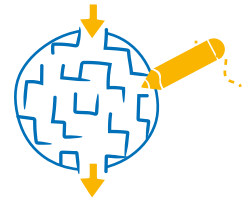
### CURIOUS FACT:

DID YOU KNOW THAT THE EMPEROR PENGUIN LIVES IN ANTARCTICA AND THAT DURING THE WINTER IT INCUBATES ITS EGG? THIS SPECIES CAN TOLERATE TEMPERATURES AS EXTREME AS  $-50^{\circ}\text{F}$  AND STRONG WINDS THAT CAN EXCEED 93 MILES PER HOUR.





# YEAR AFTER YEAR...

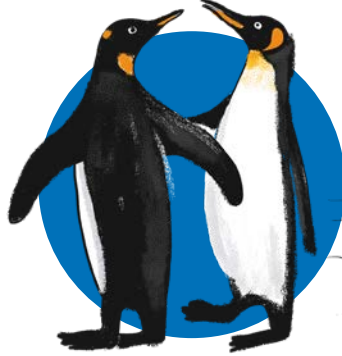


DISCOVER THE BEHAVIORS PENGUINS DISPLAY IN ORDER TO MATE.

MAGELLANIC PENGUIN



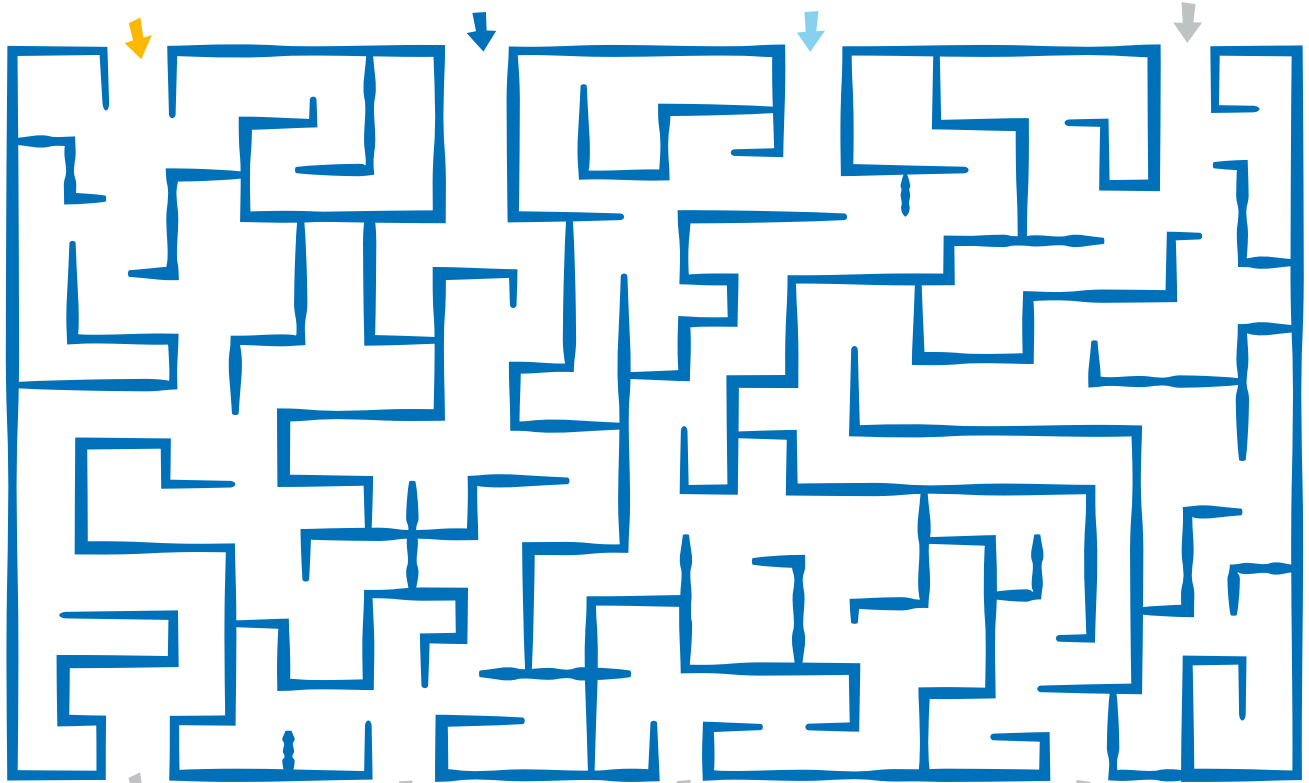
KING PENGUIN



EMPEROR PENGUIN



GENTOO PENGUIN



BEAK CLASHING (DUELING)

DANCES

VOCALIZATIONS

NEST CONDITIONING

AT THE BEGINNING OF THE BREEDING SEASON, MALE PENGUINS COME TO SHORE TO PREPARE THE NESTS AND THEN REJOIN THEIR MATES. BI-PARENTING IS

A FUNDAMENTAL ASPECT OF PENGUIN BEHAVIORS: BOTH PARENTS TAKE TURNS INCUBATING THE EGGS AND RAISING AND CARING FOR THEIR CHICKS.



## CURIOUS FACT:

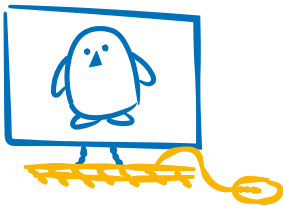
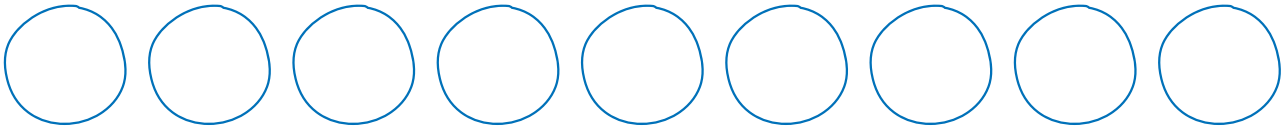
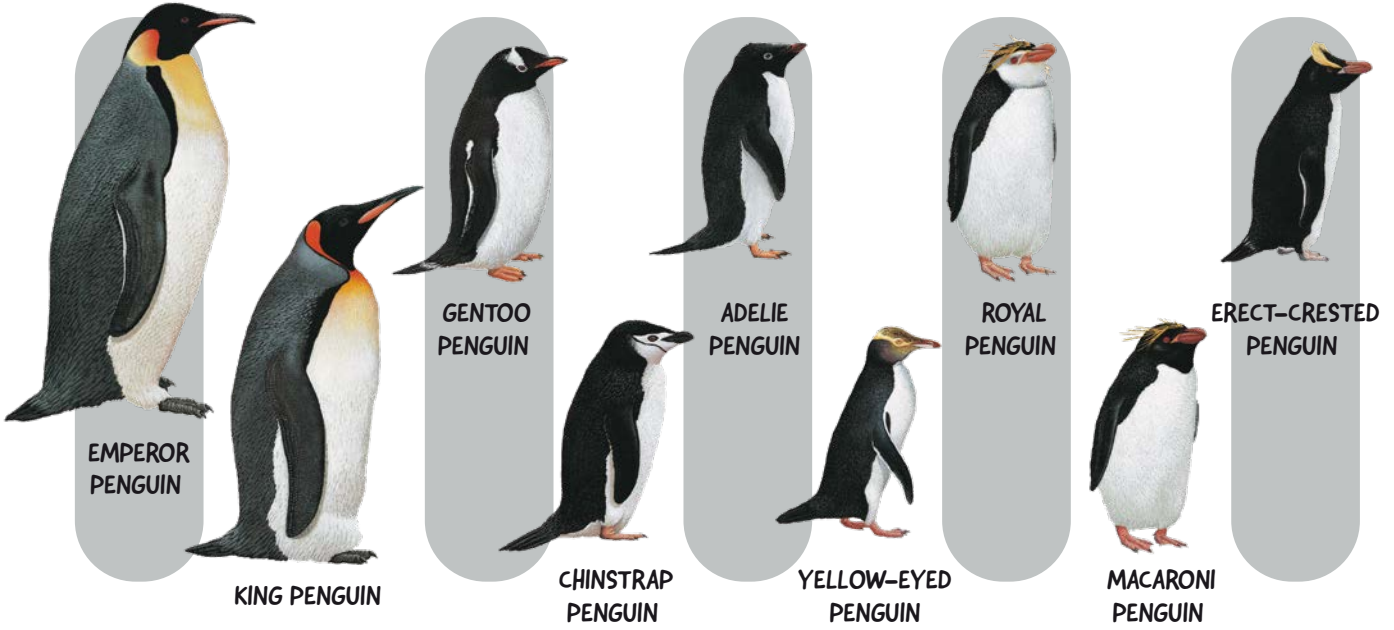
DID YOU KNOW THAT PENGUINS ARE MONOGAMOUS? THIS MEANS THAT A FEMALE AND A MALE ARE PAIRED TO RAISE THEIR CHICKS WITHIN ONE BREEDING SEASON. SOME KEEP THE SAME PARTNER FOR MANY, MANY YEARS. FOR EXAMPLE, ONE MAGELLANIC PENGUIN COUPLE STAYED TOGETHER FOR 17 YEARS.

# THERE ARE MANY DIFFERENT PENGUINS!

PENGUINS LIVE IN THE SOUTHERN HEMISPHERE OF THE PLANET AND HALF OF THE SPECIES ARE CONSIDERED VULNERABLE OR ENDANGERED, DUE TO THE PROBLEMS THEY FACE IN THEIR HABITATS.

HIGHLIGHT EACH NUMBER AND FIND OUT HOW MANY SPECIES THERE ARE:

1 2 3 4 5 6 7 8 9



FIND OUT AND PAINT EACH CIRCLE WITH THE CONSERVATION STATUS OF EACH SPECIES. FOR THIS INFORMATION, YOU CAN VISIT OUR WEBSITE AND GO TO THE SPECIES FACT FILES IN THE SECTION "INFO & NEWS: LEARN ABOUT PENGUINS".

[GLOBALPENGUINSOCIETY.ORG](http://GLOBALPENGUINSOCIETY.ORG)

THE INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE (IUCN) USES CATEGORIES TO HELP IDENTIFY A SPECIES' CONSERVATION STATUS.



**LC** - LEAST CONCERN



**NT** - NEAR THREATENED



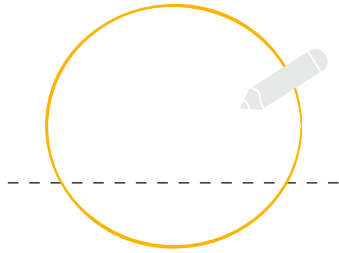
**VU** - VULNERABLE



**EN** - ENDANGERED



**EX** - EXTINCT



10

11

12

13

14

15

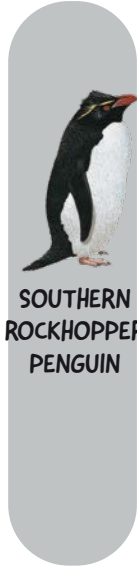
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17

18



FIORDLAND  
PENGUIN



SOUTHERN  
ROCKHOPPER  
PENGUIN



HUMBOLDT  
PENGUIN



AFRICAN  
PENGUIN



BLUE  
PENGUIN



SNARES  
PENGUIN



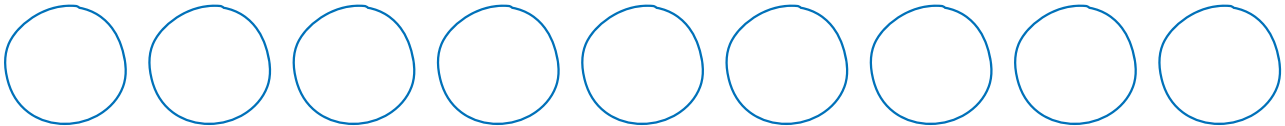
NORTHERN  
ROCKHOPPER  
PENGUIN



MAGELLANIC  
PENGUIN



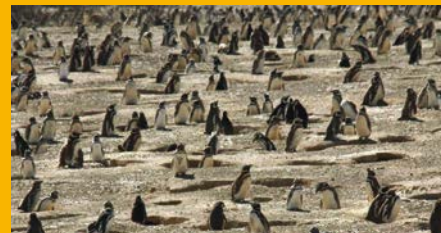
GALAPAGOS  
PENGUIN



### CURIOUS FACT:

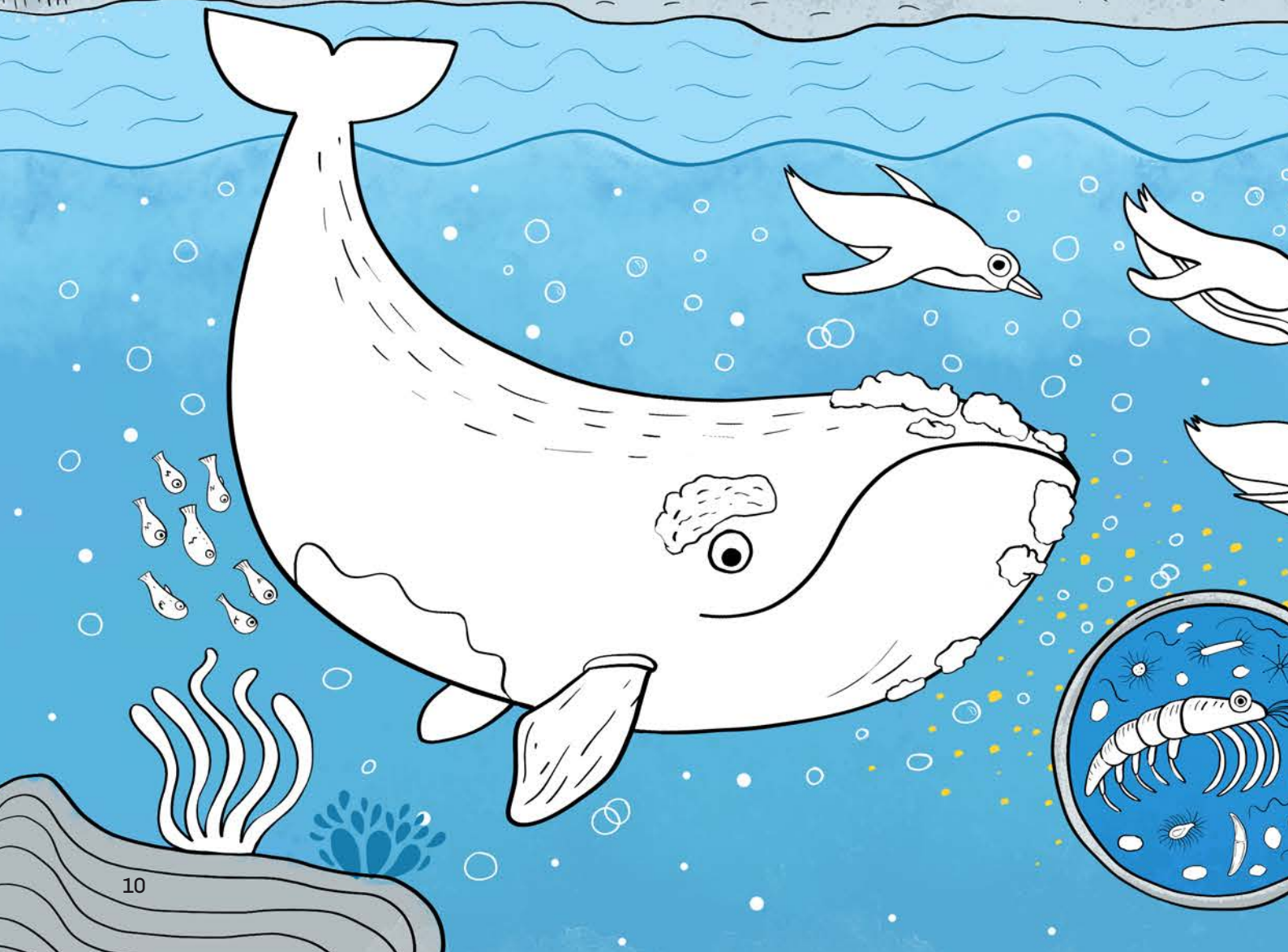
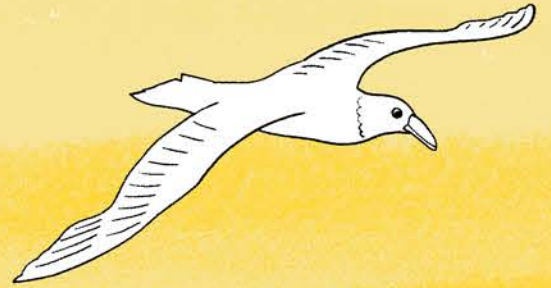
DID YOU KNOW THAT PENGUINS CAN BREED IN DIFFERENT ENVIRONMENTS AND THAT ONLY TWO SPECIES DO NOT

BUILD NESTS? THESE ARE THE KING PENGUIN AND THE EMPEROR PENGUIN, WHICH PLACE THEIR SINGLE EGG ON THEIR FEET AND INCUBATE IT THERE.



# 20% OF ITS LIFE TAKES PLACE ON LAND...

PENGUINS ONLY LIVE ON LAND WHEN THEY BUILD THEIR NESTS, LAY THEIR EGGS AND LOOK AFTER THEIR CHICKS. IN ORDER TO SURVIVE, THEY MUST DEFEND THEMSELVES AGAINST CERTAIN PREDATORS: SEAGULLS, SKUAS, FOXES, PUMAS, WILD CATS, ETC.



# SHARING ENVIRONMENTS



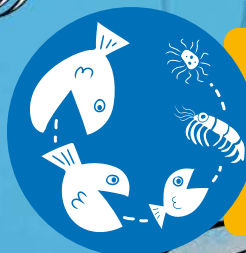
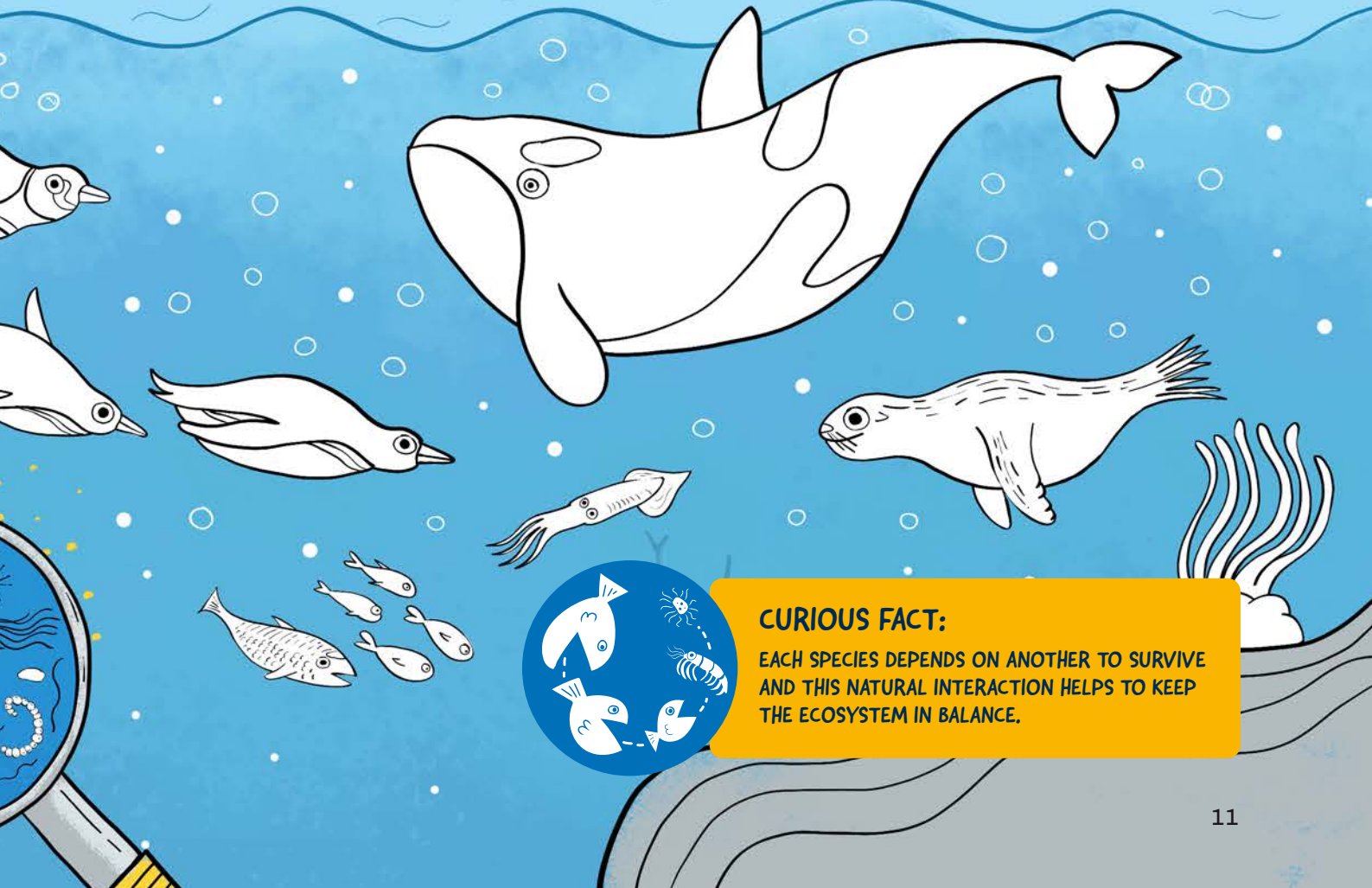
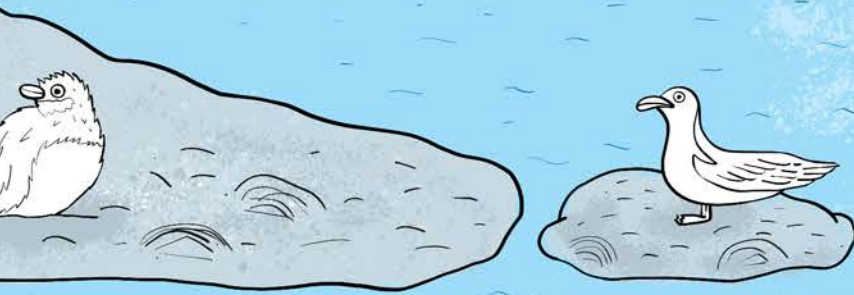
LOOK AT EVERYTHING THAT IS HAPPENING IN THE SCENE AND COLOR IN THE WILDLIFE.



## 80% OF THEIR LIFE TAKES PLACE AT SEA...

PENGUINS FIND THEIR FOOD IN THE SEA: FISH, SQUID, OCTOPUSES, SHRIMPS, ETC. THEY ALSO SHARE THE SEA WITH OTHER LIVING CREATURES, INCLUDING THEIR MAIN PREDATORS: KILLER WHALES, GIANT PETRELS, SEA LIONS AND ELEPHANT SEALS.

PENGUINS ALSO USE THE OCEAN FOR THEIR ANNUAL MIGRATION JOURNEY, BUT UNLIKE FLYING BIRDS, PENGUINS MIGRATE BY SWIMMING.



### CURIOUS FACT:

EACH SPECIES DEPENDS ON ANOTHER TO SURVIVE AND THIS NATURAL INTERACTION HELPS TO KEEP THE ECOSYSTEM IN BALANCE.

# BE CAREFUL!



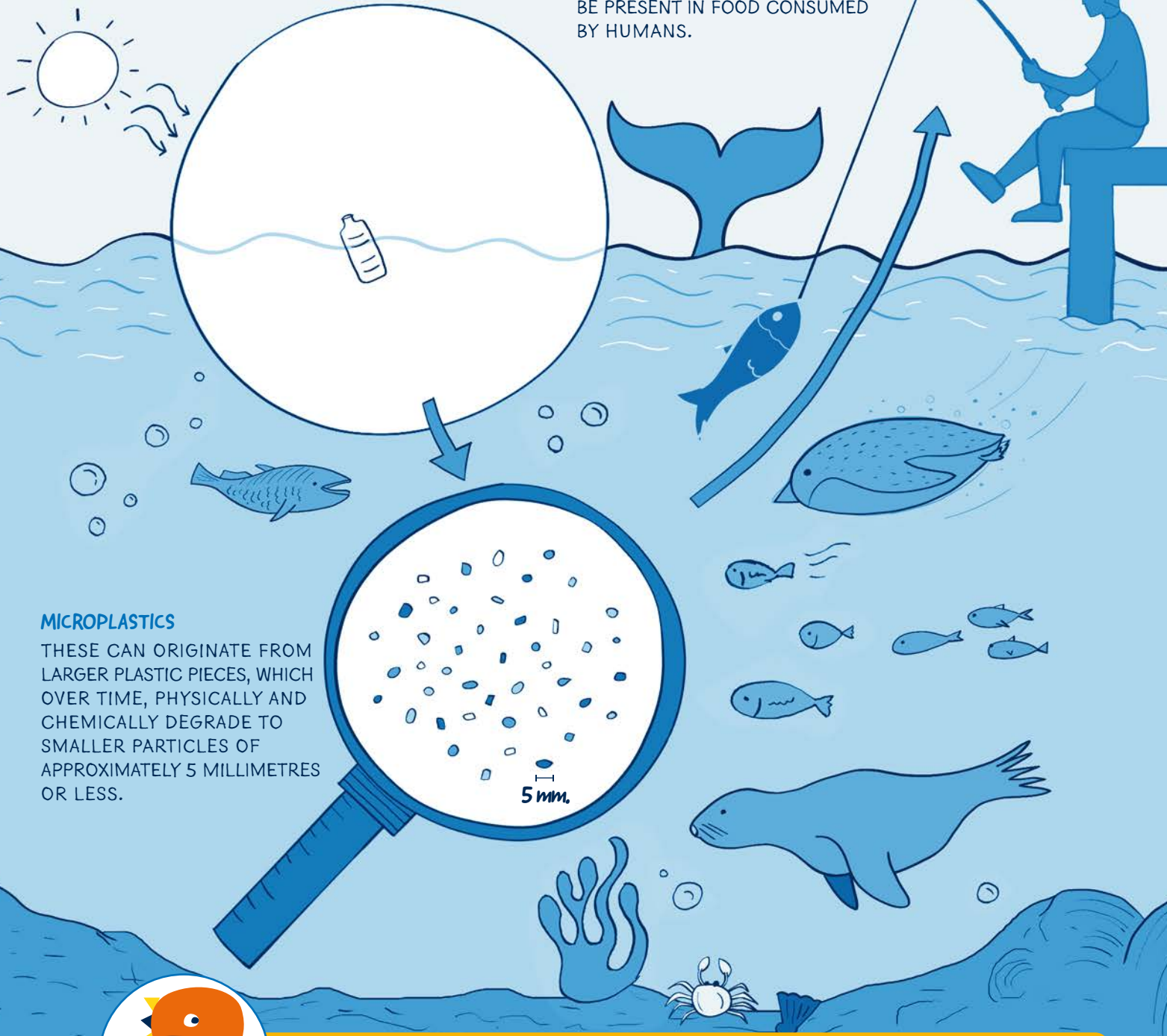
**DRAW THE PLASTICS THAT CAN BE FOUND FLOATING IN THE SEA, FIND OUT WHAT HAPPENS TO THEM AND HOW FAR THEY CAN DRIFT.**

## PLASTIC

NEW AND LONG-LASTING SUBSTANCES IN NATURE THAT HAVE ALREADY CAUSED ENORMOUS POLLUTION PROBLEMS. MACROPLASTICS ARE THE PIECES LARGER THAN 5 MILLIMETRES.

## FOOD CHAIN

PLASTICS CAN BE INGESTED BY ANIMALS. THEY CAN THEREFORE BE PRESENT IN FOOD CONSUMED BY HUMANS.



## MICROPLASTICS

THESE CAN ORIGINATE FROM LARGER PLASTIC PIECES, WHICH OVER TIME, PHYSICALLY AND CHEMICALLY DEGRADE TO SMALLER PARTICLES OF APPROXIMATELY 5 MILLIMETRES OR LESS.

## CURIOUS FACT

THERE IS WASTE THAT EXCEEDS THE LIFE EXPECTANCY OF A HUMAN BEING. WHAT WILL HAPPEN WHEN WE ARE NO LONGER AROUND? PLASTICS CAN BE IN NATURE FOR HUNDREDS OR THOUSANDS OF YEARS UNTIL THEY DEGRADE.



# YOU CAN HELP FROM YOUR HOME: SEPARATE YOUR GARBAGE!



COLOR THE SOLID URBAN WASTE AND CIRCLE EACH ONE, USING THE COLOR OF ITS CONTAINER.

**MOIST/ORGANIC**

PROCESSED FOOD LEFTOVERS, PERSONAL HYGIENE ITEMS, COTTON WOOL, TEA, COFFEE, GARDEN WASTE, FRUIT WASTE, RAW VEGETABLES, MEAT AND BONES, ETC.

**DRY/INORGANIC**

PACKAGING IN GENERAL (CLEAN AND DRY), PAPER, CARDBOARD, PLASTIC, POLYETHYLENE, GLASS, CANS, WOOD, RUBBER, TEXTILES, BATTERIES, LAMPS, ETC.



SEPARATING WASTE CONTRIBUTES TO IMPROVING AND REFLECTING ON ONE'S OWN CONSUMER HABITS. YOU CAN HELP PENGUINS AND IMPROVE ENVIRONMENTS WITH EVERYDAY ACTIONS AS SIMPLE AS AVOIDING THE USE OF SINGLE-USE PLASTICS, BY COMPOSTING AND APPLYING THE 5RS. THE SUM OF THESE ACTIONS, HOWEVER SMALL THEY MAY SEEM, WILL MAKE A HUGE DIFFERENCE TO THE FUTURE OF PENGUINS, PEOPLE AND THE ENTIRE PLANET.



COMPOST



REDUCE



REJECT



REUSE



REPAIR

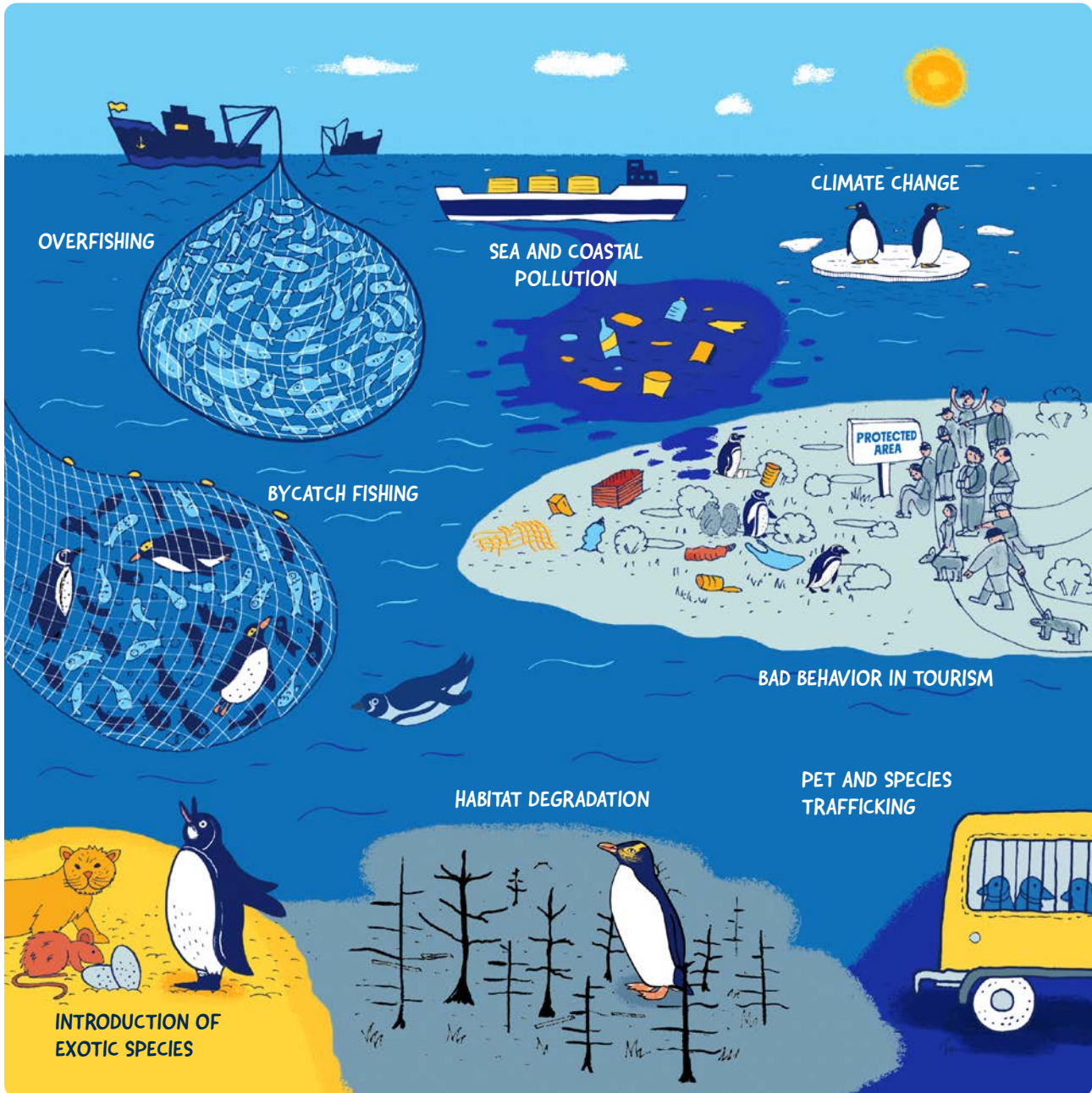


RECYCLE

# OTHER HUMAN THREATS



OBSERVE AND ANALYZE THE PICTURE...



PENGUINS NOT ONLY HAVE TO WATCH OUT FOR NATURAL PREDATORS, THEY ALSO FACE A VARIETY OF HUMAN INDUCED THREATS THAT AFFECT THEIR LIVES. THAT IS WHY THE GLOBAL PENGUIN SOCIETY WORKS TOGETHER AS A TEAM OF RESEARCHERS AND EDUCATORS TO GENERATE SCIENCE, HELP CREATE PROTECTED AREAS AND ORGANIZE ENVIRONMENTAL EDUCATION ACTIVITIES TO PROTECT ALL PENGUIN SPECIES AND THEIR HABITATS.





# DISCOVER WHAT TOOLS RESEARCHERS BRING ALONG WHEN VISITING COLONIES TO STUDY PENGUINS.



JOIN WITH AN ARROW EACH ELEMENT AND INSTRUMENT WITH THE FUNCTION IT FULFILLS.

**PLIER** ●  
FOR EASILY FITTING  
THE METAL TAG.

● **METAL HOOK**  
TO GENTLY PICK UP THE  
PENGUIN FROM ONE OF  
ITS LEGS AND CAREFULLY  
REMOVE IT FROM THE NEST.

● **RULER**  
FOR MEASURING LENGTHS  
OF FLIPPERS AND LEGS.

**TRACKING  
DEVICE** ●  
ALLOWS THE  
PENGUIN TO BE  
TRACKED DURING  
ITS FEEDING TRIP  
AT SEA.

**CALIPER** ●  
TO MEASURE  
THE BEAK  
AND HEAD.

● **METAL TAG**  
PLACED ON THE  
PENGUIN'S LEFT  
FLIPPER, IT IS USED  
TO IDENTIFY THE  
PENGUIN WITH A  
NUMBER.

● **PERMANENT  
MARKER**  
TO LABEL THE  
NEST UNDER  
STUDY.

● **CLOTH OR  
LEATHER GLOVES**  
TO PROTECT  
HANDS WHEN  
HOLDING THE  
PENGUIN.

**PORTABLE  
SCALES** ●  
FOR WEIGHING  
THE ANIMAL.

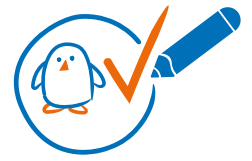
**LABEL** ●  
TO IDENTIFY EACH NEST WITH A  
NUMBER FOR MONITORING.

● **CAMERA**  
TO TAKE NECESSARY PICTURES.

**NOTEPAD AND PENCIL** ●  
TO RECORD NECESSARY DATA SUCH  
AS MEASUREMENTS, OBSERVATIONS,  
NUMBER OF PENGUINS, ETC.

● **GPS**  
TO MARK CERTAIN  
LOCATIONS, E.G. NESTS.

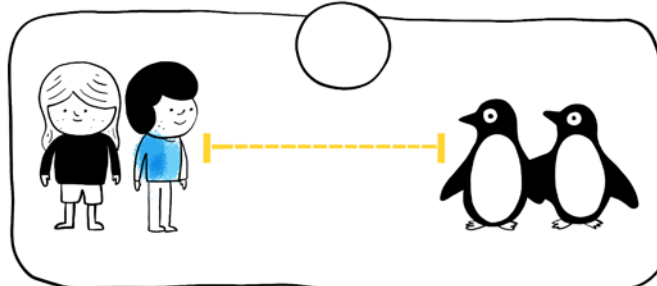
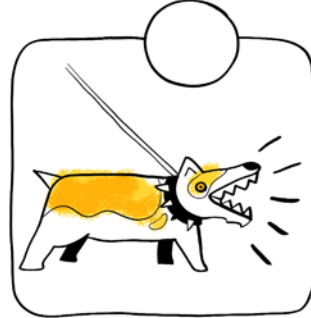
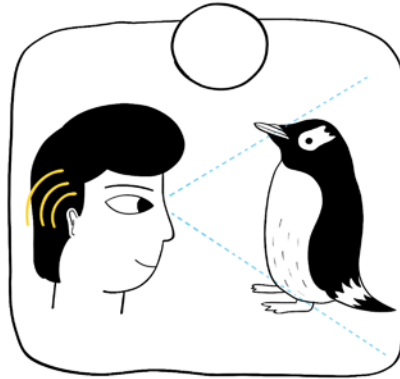




# THE POWER OF PROTECTED AREAS

ACCORDING TO THE INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE (IUCN), A PROTECTED AREA IS AN AREA OF LAND AND/OR SEA DESIGNATED FOR THE PROTECTION AND PRESERVATION OF BIOLOGICAL DIVERSITY, AS WELL AS ITS NATURAL AND CULTURAL RESOURCES.

LOOK AT EACH SITUATION AND DRAW  OR  WHETHER THE ACTIVITY WOULD MAKE PENGUINS HAPPY OR SAD.



## CURIOUS FACT

DID YOU KNOW THAT THERE ARE PROTECTED AREAS IN THE SEA? THESE DEFINED AREAS PROTECT FEEDING AND MIGRATION AREAS USED BY PENGUINS AND OTHER MARINE SPECIES.



THE LINE DRAWN IN THE ILLUSTRATION REPRESENTS THE BOUNDARY OF THE PROTECTED AREA. ALTHOUGH THERE ARE NO PHYSICAL SIGNS AT SEA INDICATING THE EXTENT OF THE MARINE PROTECTED AREA, ITS BOUNDARIES DO EXIST AND CAN BE SEEN ON MAPS.



# HEALTHY OCEANS FOR PENGUINS AND OTHER WILDLIFE

FIND THE WORDS THAT WILL HELP IMPROVE THE HEALTH OF OUR OCEANS.

A	Q	P	O	T	R	W	H	X	C	B	N	T	O	B	K
P	C	O	A	P	A	U	E	A	A	X	A	U	E	A	L
E	O	R	T	H	O	A	A	Q	F	L	M	A	A	L	A
G	N	A	A	Q	Y	I	L	J	N	R	R	F	O	A	U
X	S	V	J	R	A	A	T	A	W	Ñ	M	A	C	N	T
Z	E	B	A	Z	L	X	H	B	V	L	R	A	S	C	C
W	R	Y	O	V	Ñ	T	T	A	Q	Q	A	A	Z	E	X
Ñ	V	L	P	R	O	T	E	C	T	I	O	N	V	Z	A
I	A	B	U	Q	A	Ñ	A	J	A	Q	A	B	A	Q	E
U	T	F	A	C	A	R	E	W	G	Y	W	F	M	G	L
M	I	J	H	D	A	R	D	A	Ñ	Q	S	A	N	A	K
K	O	U	Y	N	W	I	A	W	A	K	A	C	Y	M	H
O	N	X	W	E	L	L	B	E	I	N	G	A	R	Y	T

THE SEA OCCUPIES 70% OF THE PLANET'S SURFACE AND IS HOME TO A GREAT BIOLOGICAL DIVERSITY. IT ALSO HAS VERY IMPORTANT FUNCTIONS: IT REGULATES THE CLIMATE, SUPPLIES MOST OF THE OXYGEN WE BREATHE AND PROVIDES FOOD. YET THERE IS NO AREA OF THE OCEAN THAT IS NOT UNDER HUMAN IMPACT. NOW IS THE TIME TO BE AWARE AND ACT TO PROTECT IT.



## GLOBAL PENGUIN SOCIETY HAS A MESSAGE FOR YOU TO DECODE...



MATCH THE SYMBOL WITH ITS CORRESPONDING LETTER.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z

Decode the message by matching symbols to letters. The symbols are arranged in rows and columns, with some symbols appearing multiple times.

Row 1: Camera, Heart, Star, Heart, Star, Penguin, Leaf, Camera, Feather, Pencil, Camera, Heart, Star, Lightbulb, Star, Penguin, Egg, Waves, Flask, Waves, Star, Waves, Star, Egg, Camera, Flask, Penguin, Leaf.

Row 2: Pencil, Feather, Sun, Mountain, Star, Egg, Eye, Water drop, Flask, Egg, Waves, Leaf, Penguin, Star, Penguin, Star, Penguin, Leaf, Moon, Camera, Heart, Penguin, Camera.

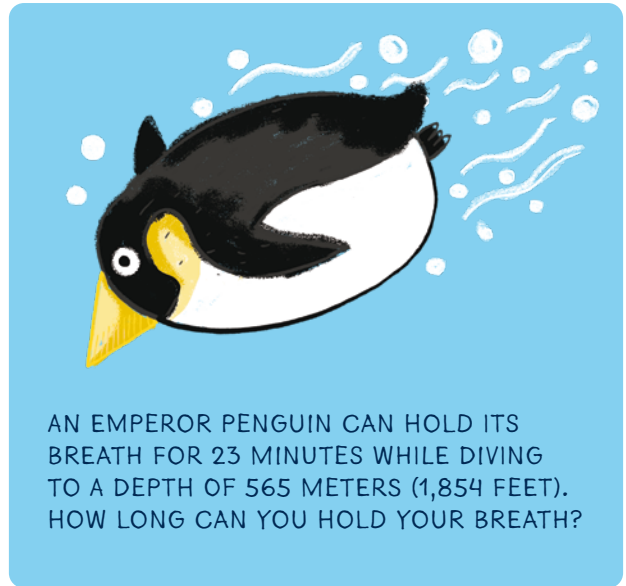
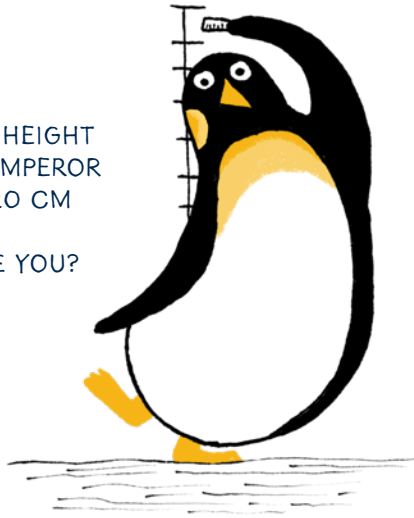
Row 3: Hand, Feather, Water drop, Leaf, Star, Penguin, Sun, Egg, Tree, Feather, Sun, Star, Penguin, Leaf, Water drop, Camera, Camera, Heart, Star, Tree.

Row 4: Heart, Star, Leaf, Mountain, Water drop, Waves, Mountain, Sun, Feather, Camera, Star, Sun, Camera, Camera, Heart, Star, Tree.

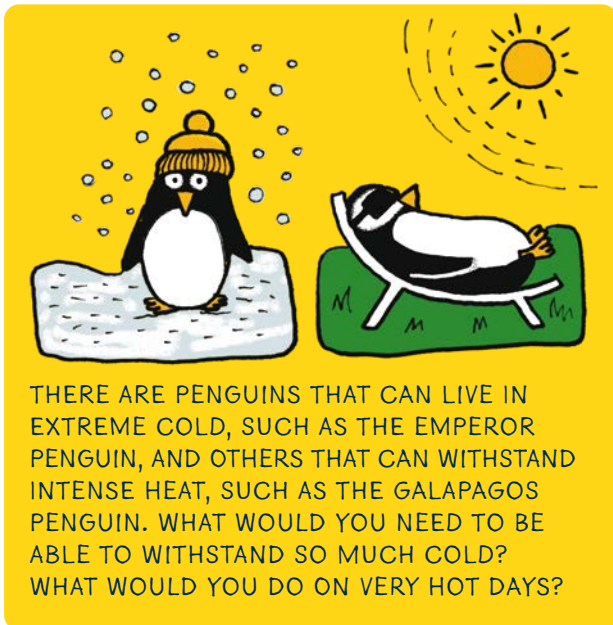
VISIT OUR WEBSITE TO LEARN MORE ABOUT THE WORLD OF PENGUINS AND BECOME AWARE OF HOW YOU CAN HELP: [globalpenguinsociety.org](http://globalpenguinsociety.org)

# INTERESTING PENGUIN FACTS!

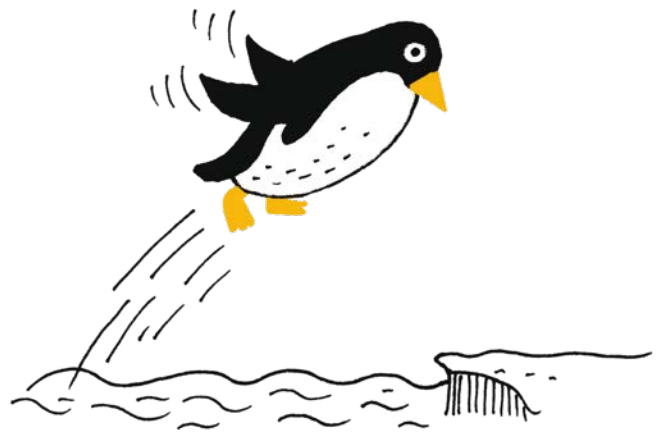
THE AVERAGE HEIGHT OF AN ADULT EMPEROR PENGUIN IS 120 CM (47 INCHES). HOW TALL ARE YOU?



AN EMPEROR PENGUIN CAN HOLD ITS BREATH FOR 23 MINUTES WHILE DIVING TO A DEPTH OF 565 METERS (1,854 FEET). HOW LONG CAN YOU HOLD YOUR BREATH?



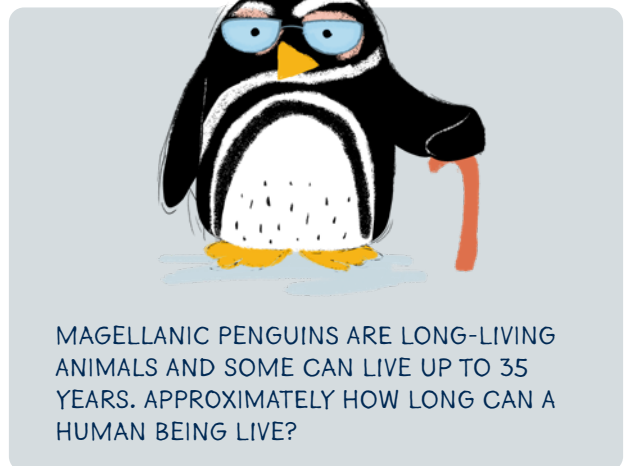
THERE ARE PENGUINS THAT CAN LIVE IN EXTREME COLD, SUCH AS THE EMPEROR PENGUIN, AND OTHERS THAT CAN WITHSTAND INTENSE HEAT, SUCH AS THE GALAPAGOS PENGUIN. WHAT WOULD YOU NEED TO BE ABLE TO WITHSTAND SO MUCH COLD? WHAT WOULD YOU DO ON VERY HOT DAYS?



DID YOU KNOW THAT THERE ARE PENGUINS THAT CAN JUMP FROM THE SEA UP TO 3 METRES (10 FEET) HIGH IN ORDER TO LAND ON THE SHORE? HOW HIGH CAN YOU JUMP?



DID YOU KNOW THAT PENGUINS DERIVE FROM AN ALBATROSS-LIKE FLYING ANCESTOR THAT LIVED 66 MILLION YEARS AGO? OVER TIME, THESE ANCESTORS LOST THE ABILITY TO FLY: THEIR WINGS WERE TRANSFORMED INTO FLIPPERS BECAUSE IT WAS MORE CONVENIENT FOR THEM TO DIVE INTO THE SEA TO GET THEIR FOOD.



MAGELLANIC PENGUINS ARE LONG-LIVING ANIMALS AND SOME CAN LIVE UP TO 35 YEARS. APPROXIMATELY HOW LONG CAN A HUMAN BEING LIVE?

# GLOSSARY

**5R:** A SET OF ECO-FRIENDLY ACTIONS THAT HELP TO TAKE CARE OF THE ENVIRONMENT. THESE ARE: REDUCE, REJECT, REUSE, REPAIR AND RECYCLE.

**ANCESTOR:** DISTANT PREDECESSOR OF A SPECIES OR GROUP OF SPECIES.

**AQUATIC:** LIVING IN WATER, BOTH FRESH OR SEA WATER.

**BIOLOGICAL DIVERSITY/BIODIVERSITY:** THE VARIETY OF ANIMAL AND PLANT SPECIES IN THEIR ENVIRONMENT.

**BREED:** TO PRODUCE YOUNG, REPRODUCE OR MATE.

**BYCATCH:** SPECIES CAUGHT UNINTENTIONALLY BY FISHERMEN WHILE FISHING FOR A DIFFERENT SPECIES.

**CLIMATE:** SET OF ATMOSPHERIC CONDITIONS THAT CHARACTERISE A REGION.

**CLIMATE CHANGE:** VARIATION IN THE EARTH'S CLIMATE. IT IS CURRENTLY BEING INTENSIFIED BY HUMAN ACTIONS ON THE ENVIRONMENT.

**COLONY:** A GROUP OF ANIMALS OF THE SAME SPECIES LIVING TOGETHER AND BREEDING IN A LIMITED TERRITORY.

**COMPOST:** FERTILIZER COMPOSED OF DECAYED ORGANIC MATERIAL.

**COMMUNITY:** A GROUP OF PLANT AND ANIMAL SPECIES THAT LIVE IN THE SAME NATURAL AREA AND ARE RELATED TO EACH OTHER.

**CONSERVATION:** EFFORTS TO PROTECT AND PRESERVE NATURE, THE ENVIRONMENT OR PARTS OF IT.

**DEGRADATION:** TO DECREASE THE QUALITY OR WORSEN THE STATE OF SOMETHING.

**ECOSYSTEM:** A BIOLOGICAL SYSTEM CONSISTING OF A COMMUNITY OF LIVING ORGANISMS AND THE PHYSICAL ENVIRONMENT IN WHICH THEY INTERACT.

**ENVIRONMENT:** SET OF EXTERNAL CIRCUMSTANCES OF A LIVING BEING, I.E. ELEMENTS AND PHENOMENA SUCH AS CLIMATE, SOIL, OTHER ORGANISMS THAT CONDITION LIFE, GROWTH AND ACTIVITY OF LIVING ORGANISMS.

**EXOTIC:** COMING FROM ANOTHER REGION.

**FOOD CHAIN:** A SUCCESSION OF INTERACTIONS BETWEEN LIVING ORGANISMS THAT FEED ON EACH OTHER IN A PARTICULAR ORDER.

**GLAND:** ORGAN WHOSE FUNCTION IS TO PRODUCE A SECRETION THAT CAN BE DISCHARGED THROUGH THE SKIN OR MUCOUS MEMBRANES.

**HABITAT:** A PLACE WITH APPROPRIATE CONDITIONS FOR AN ORGANISM, SPECIES OR ANIMAL COMMUNITY OR PLANT TO LIVE.

**HABITS:** CUSTOMARY PRACTICE OF A PERSON, ANIMAL OR GROUP.

**INCUBATION:** KEEPING EGGS UNDER APPROPRIATE CONDITIONS UNTIL THE YOUNG BREAK THROUGH THE SHELL OR MEMBRANE TO HATCH.

**INGEST:** TO INTRODUCE FOOD AND LIQUIDS INTO THE MOUTH IN ORDER TO EAT AND/OR DRINK THEM.

**INORGANIC:** THAT IS NOT AND HAS NOT BEEN PART OF A LIVING BEING.

**INTERDIGITAL MEMBRANE:** SKIN MEMBRANE THAT JOINS THE FINGERS AND TOES OF THE EXTREMITIES OF A LIVING BEING.

**IUCN:** INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE.

**MARINE:** OF OR RELATING TO THE SEA.

**MIGRATION:** THE MOVEMENT OF THE POPULATION, USUALLY BY MASSES, FROM THE PLACE OF RESIDENCE IN SEARCH OF FAVORABLE CLIMATE CONDITIONS FOR REPRODUCTION AND FOOD SUPPLY. IT ALSO INCLUDES THE RETURN TO THE PLACE OF RESIDENCE.

**MONOGAMY:** RELATIONSHIP OF THE COUPLE THAT MAINTAINS THE EXCLUSIVE BOND DURING THE PERIOD OF REPRODUCTION AND BREEDING OF THE OFFSPRING.

**NATURAL:** BELONGING TO OR RELATING TO NATURE OR CONFORMING TO THE QUALITY OR PROPERTY OF THINGS.

**NATURAL RESOURCE:** AN ELEMENT OF NATURE THAT HELPS OR CONTRIBUTES TO THE DEVELOPMENT OF LIVING BEINGS.

**NATURE:** REFERS TO THE NATURAL WORLD. THE TERM REFERS TO THE PHENOMENA OF THE PHYSICAL WORLD, AND ALSO TO LIFE IN GENERAL.

**NEST:** CONSTRUCTION MADE BY BIRDS FOR LAYING EGGS AND RAISING CHICKS.

**ORGANIC:** A SUBSTANCE, WHICH HAS CARBON AS A COMPONENT AND WHICH IS PART OF LIVING THINGS.

**OVERFISHING:** EXCESS FISHING BY HUMANS.

**PARTICLES:** SMALL OBJECTS TO WHICH PHYSICAL AND CHEMICAL PROPERTIES ARE ATTRIBUTED.

**PLASTICS:** SYNTHETIC MATERIALS, WHICH CAN BE EASILY MOLDED AND ARE COMMONLY DERIVED FROM PETROLEUM.

**POLLUTION:** THE PRESENCE OR ACCUMULATION OF SUBSTANCES IN THE ENVIRONMENT THAT ADVERSELY AFFECT THE ENVIRONMENT AND LIVING CONDITIONS, AS WELL AS THE HEALTH OR HYGIENE OF LIVING BEINGS.

**POROSITY:** THE NUMBER OF SMALL PORES OR HOLES FOUND ON A SURFACE.

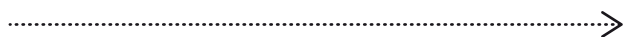
**PREDATOR:** ANIMAL THAT FEEDS ON OTHER ANIMALS, USUALLY OF ANOTHER SPECIES.

**PREY:** ANIMAL SPECIES THAT CAN BE HUNTED, TRAPPED, AND KILLED FOR FOOD BY ANOTHER ANIMAL SPECIES.

**PROTECTION:** A SET OF MEASURES TAKEN AT PUBLIC AND PRIVATE LEVEL TO CARE FOR OUR NATURAL HABITAT.

**RECYCLE:** TO SUBJECT A USED MATERIAL OR WASTE TO A PROCESS IN WHICH IT IS RECOVERED, IN WHOLE OR IN PART, FOR REUSE.

**REPRODUCTION:** STAGE IN THE LIFE CYCLE OF A LIVING BEING THAT ALLOWS THE CREATION OF NEW BEINGS AND THUS THE CONTINUATION OF THE SPECIES OVER TIME.



**RESEARCHER:** ONE WHO IS ENGAGED IN ONE OR MORE SCIENCES.

**THERMAL INSULATOR:** INSULATES THE TEMPERATURE, PREVENTING HEAT TRANSFER.

**TO COMPOST:** USING DECAYING ORGANIC MATERIAL AS FERTILIZER.

**SCIENCE:** THE BODY OF KNOWLEDGE THAT STUDIES, INVESTIGATES AND INTERPRETS NATURAL, SOCIAL AND ARTIFICIAL PHENOMENA.

**SECRETION:** A SUBSTANCE SECRETED BY AN ORGAN OR GLAND.

**SINGLE-USE:** THAT IS INTENDED TO BE USED ONLY ONCE.

**SOUTHERN HEMISPHERE:** ONE OF THE GEOGRAPHICAL DIVISIONS INTO WHICH THE PLANET EARTH IS DIVIDED. THE SOUTHERN HEMISPHERE CORRESPONDS TO THE HALF SOUTH OF THE EQUATOR, WHICH SEPARATES IT FROM THE NORTHERN HEMISPHERE.

**SPECIES:** THIS IS A LEVEL OF BIOLOGICAL CLASSIFICATION. A SET OF ORGANISMS CAPABLE OF REPRODUCING AMONG THEMSELVES AND PRODUCING FERTILE OFFSPRING.

**SPECIES TRAFFICKING:** THE OFFENCE OF BUYING AND/OR SELLING WILD ANIMAL AND PLANT SPECIES ILLEGALLY.

**WASTE:** TRASH, RUBBISH.







The **Global Penguin Society** is an international organization dedicated to promoting the conservation of all the world's penguin species and the coasts and oceans they inhabit. To help penguins face the main dangers they encounter, we work to generate useful science for conservation, promote the protection of their habitats and develop multiple environmental education activities. This educational and activity book is the result of the work of biologists and educators who want to bring children and teachers closer to the world of penguins, teaching them the importance of protecting them.

Learn more about penguins at  
[globalpenguinsociety.org](http://globalpenguinsociety.org)  
and join our actions to help us care for them.

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**M<sup>a</sup>. LUJÁN VILLABRIGA**  
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**DESIGN AND ILLUSTRATION: FEDERICO POSADAS**