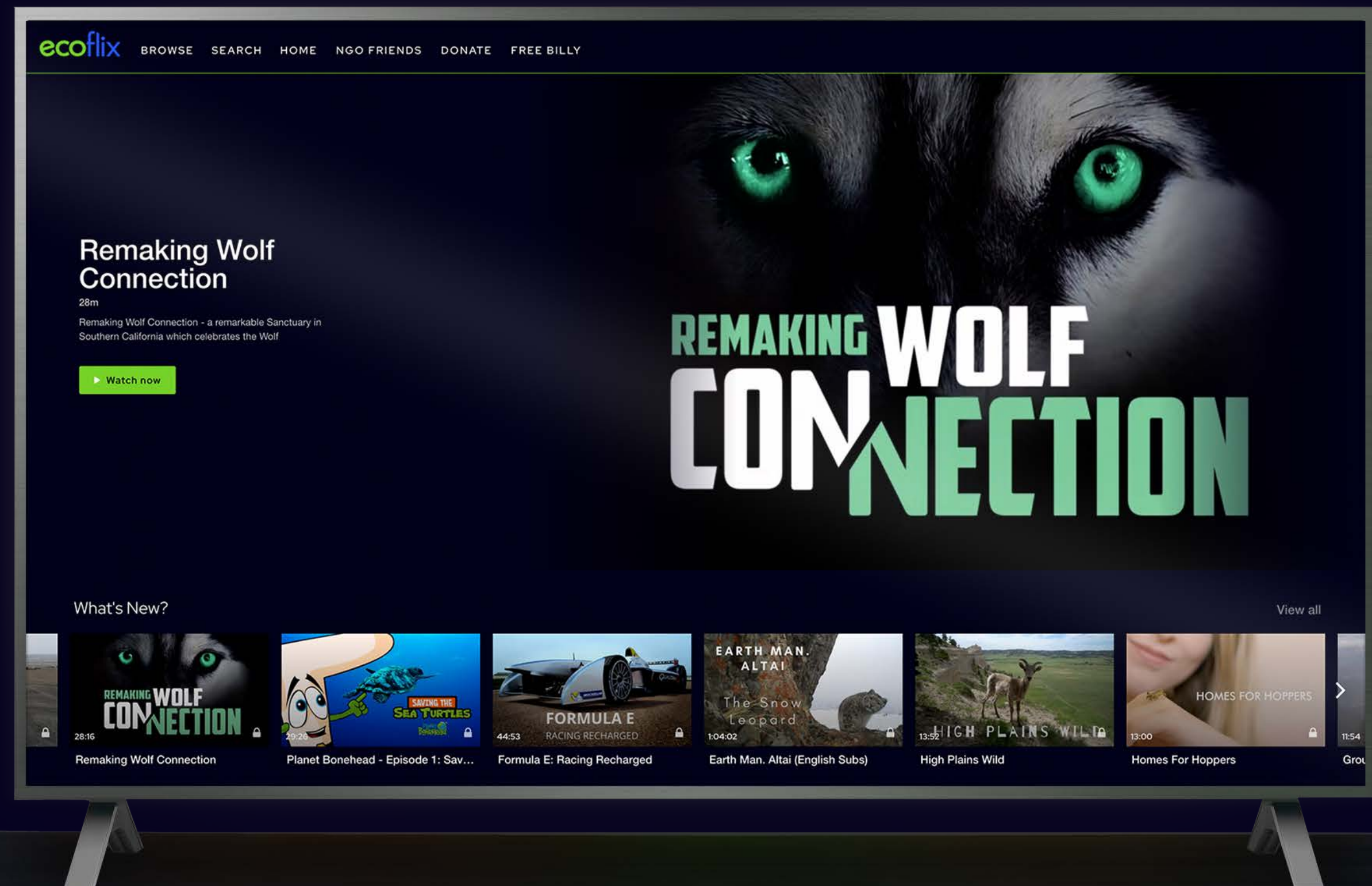


ecoflix

TEACHERS' PACK: SCIENCE



CONTENTS

YEAR ONE

Plants: Pages 2-3
Animals, including humans: Pages 3-5
Seasonal changes: Page 5

YEAR TWO

Living things and their habitat: Pages 5-
Plants: Page 7 Animals, including humans: Pages 7-9

YEAR THREE

Plants: Pages 9-10
Animals, including humans: Page 10
Rocks: Pages 10-11
Light: Page 11

YEAR FOUR

Living things and their habitat: Pages 11-13
Animals, including humans: Page 13
Electricity: Page 13-14

YEAR FIVE

Living things and their habitat: Pages 14-15

YEAR SIX

Living things and their habitat: Pages 15-16
Evolution and inheritance: Pages 16-17
Electricity: Page 17



YEAR ONE

PLANTS, ANIMALS & SEASONAL CHANGES

PLANTS

LESSON OBJECTIVE ONE

Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees

LESSON OBJECTIVE TWO

Identify and describe the basic structure of a variety of common flowering plants, including trees

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Identifies evergreen trees and the basic structure and variety of trees	The Last Stand	53 minutes 26 seconds	Explores the race to save ancient old-growth forests, focusing on the evergreen trees of Fairy Creek of British Columbia. This film profiles activists and scientists, detailing the significance of ancient trees in forests. It explores the structure of evergreen trees and the threats to forests around the world.		https://watch.ecoflix.com/videos/the-last-stand
Identifies the basic structure and variety of trees in a tropical forest	Dark Green: An Amazon Story	22 minutes and 32 minutes	Dark Green Part 1: Alone in the Amazon: Examines a forest and the effect that man-made fires have had on the ecosystem. Provides an example of a tropical forest in an exciting location. Dark Green Part 2: The Conservation Story: Demonstrates how local people are working to conserve what remains of the environment after it has been largely destroyed by fires.	Part 1: Alone in the Amazon Part 2: The Conservation Story	https://watch.ecoflix.com/dark-green-an-amazon-story
Identifies the basic structure and variety of trees in a tropical forest	Defending Mirador National Park	8 minutes 4 seconds	Examines the largest remaining forest and wildlife habitat in Central America, and the threats to it. Film focuses on logging and the structure of the rainforest. Gives an example of a forest.		https://watch.ecoflix.com/videos/defending-mirador-national-park
Identifies evergreen trees/forest and the basic structure and variety of trees	Mont Saint-Hilaire	50 minutes 17 seconds	Explores the race to save ancient old-growth forests, focusing on the evergreen trees of Mount Saint-Hilaire in Quebec. This film explores the structure of evergreen trees and the threats to forests around the world.		https://watch.ecoflix.com/striking-balance/season:1/videos/mont-saint-hilaire
Identifies trees/forest and the basic structure and variety of trees in a tropical forest	South-East Asia's last forests	4 minutes 17 seconds	NGO Global Conservation works to save an intact forest. Film focuses on the structure of the rainforest and gives examples of the species that inhabit it. Only 5% of Asia's tropical forests remain, making this an urgent fight.		https://watch.ecoflix.com/videos/south-east-asia-s-last-forests
Identifies basic structure of a and care for a variety of plants, including trees	Wet Tropics (series)	~3 minutes / episode	Examines individuals living in tropical forests in Australia, and working to exist in harmony with the nature around them. These episodes emphasize how humans can care for and preserve wild plants.	3 episodes: 1) Sue Gregory: Sue lives in the rainforest in northwest Queensland, and tries her best to live in harmony with wildlife 2) Neil Hewett: Neil lives in Australia's oldest rainforest 3) Linc Walker: Linc lives in the coastal mangrove swamps of Queensland	https://watch.ecoflix.com/wet-tropics-1
Identifies how fire can harm trees/forests and what we can do to preserve them	Save Your Planet - Forest fires	2 minutes, 14 seconds	Animation LESSON OBJECTIVEed towards younger audiences examining the threat of fires to forests. Presents the simple message of respecting the environment in an easily digestible format.		https://watch.ecoflix.com/videos/forest-fires

ANIMALS

LESSON OBJECTIVE ONE

Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals

LESSON OBJECTIVE TWO

Identify and name a variety of common animals that are carnivores, herbivores and omnivores

LESSON OBJECTIVE THREE

Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)

LESSON OBJECTIVE FOUR

Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Identifies, describes, and compares the structure of birds and mammals, including carnivores, herbivores, and omnivores	Borneo Jungle Diaries (series)	9-14 minutes / episode	Alex Alexander, a young actress and student, joins scientists to discover the flora and fauna of Borneo. Offers an in depth look at hornbills, tarsiers, clouded leopards, elephants, sun bears, pangolins, and proboscis monkeys.	7 episodes: Proboscis monkey Tarsier Pangolin Hornbill Clouded leopard Elephant Sun bear	https://watch.ecoflix.com/borneo-jungle-diaries-1
Identifies chimpanzees, humans' closest living relatives, describing their diet	Sanctuary: Chimp Haven	30 minutes 35 seconds	Profile on Chimp Haven sanctuary in Louisiana, providing home and care to chimpanzees retired from laboratory research or the entertainment industry.		https://watch.ecoflix.com/videos/chimp-haven
Identifies the structure of birds, amphibians, reptiles, and mammals, including carnivores, herbivores, and omnivores	Stop Extinction	4 minutes 12 seconds	Focusing on the Amazon and the species that inhabit the Asian rainforest, this film explores human impact on the survival of other species.		https://watch.ecoflix.com/videos/stop-extinction
Identifies the structures of elephants, describing their diet and natural history	Saving the Last Tuskers	20 minutes 57 seconds	An entertaining look at how humans are harming elephants and how other humans are helping these elephants. Profiles Richard Moller, co-founder and CEO of of the Tsavo Trust, working to rescue and rehabilitate elephants that are the victim of human activity and natural disasters.		https://watch.ecoflix.com/videos/saving-the-last-tuskers
Identifies, describes, and compares the structure of birds and mammals, including carnivores, herbivores, and omnivores	Going Wild with John and James	12 minutes / episode	A fun series centering around John and James, safari tour guides in Botswana, Africa. Wildlife encountered includes hippos, giraffes, elephants, leopards, lions and zebras.	5 episodes: John and James encounter a young male elephant and a lioness and her cubs John and James take a helicopter and see a leopard kill John, James, and their guests see hippos, zebra, and baby giraffes John, James, and guests go on a photography mission and see hippos, elephants, and giraffes John and James encounter some of the rarest wildlife in Botswana	https://watch.ecoflix.com/going-wild-with-john-and-james-1
identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Planet Bonehead - Episode 6: Bird Trek The Wrath of Falcon	34 minutes, 55 seconds	Animated show LESSON OBJECTIVEEed towards younger audiences, educating about birds of prey, the food chain, and wildlife threats to agriculture.		https://watch.ecoflix.com/videos/planet-bonehead-episode6-bird-trek-the-wrath-of-falcon
Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals	Planet Bonehead - Episode 7: Back to the Gator	33 minutes, 3 seconds	Animated show LESSON OBJECTIVEEed towards younger audiences, educating about alligators and their natural history.		https://watch.ecoflix.com/videos/planet-bonehead-episode7-back-to-the-gator

SEASONAL CHANGES

LESSON OBJECTIVE ONE

Observe changes across the 4 seasons

LESSON OBJECTIVE TWO

Observe and describe weather associated with the seasons and how day length varies

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Seasonal weather patterns in a region and how they relate to the success of a town	Hope in a Changing Climate	29 minutes	China's Loess Plateau has recently transformed from barren to fertile, thanks to the work of residents who have hope for a green future. The area has traditionally been victim of natural disasters, including floods, mudslides, and famine. Residents have worked against and with the weather to ensure the success of the landscape.		https://watch.ecoflix.com/videos/hope-in-a-changing-climate



YEAR TWO

HABITATS, PLANTS & ANIMALS

HABITATS

LESSON OBJECTIVE ONE

Explore and compare the differences between things that are living, dead, and things that have never been alive

LESSON OBJECTIVE TWO

Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other

LESSON OBJECTIVE THREE

Identify and name a variety of plants and animals in their habitats, including microhabitats

LESSON OBJECTIVE FOUR

Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Identifies a variety of plants and animals in their habitat, describes the food chain of the Amazon, and provides an example of dead trees/forests	Dark Green: An Amazon Story	22 minutes and 32 minutes	Dark Green Part 1 : Alone in the Amazon: Examines a forest and the effect that man-made fires have had on the ecosystem. Provides an example of a tropical forest in an exciting location. Dark Green Part 2: The Conservation Story: Demonstrates how local people are working to conserve what remains of the environment after it has been largely destroyed by fires.	Part 1: Alone in the Amazon Part 2: The Conservation Story	https://watch.ecoflix.com/dark-green-an-amazon-story
Shows the interaction between a species and the particular landscape to which they are suited.	High Plains Wild	13 minutes 52 seconds	Documents how the unique and diverse habitat they inhabit allows a rare species of big-horned sheep to thrive in the buttes. While this species was once almost exterminated, the sheep now thrive thanks to the rich landscape they inhabit.		https://watch.ecoflix.com/videos/high-plains-wild
Identifies how a habitat provides for the basic needs of the animals living in it, the food chain of Madagascar, and how diverse this particular ecosystem is	The Evolution of Madagascar	42 minutes 17 seconds	Examines the diversity of Madagascar’s unique ecosystems. The forest is nearly gone, but people are working to preserve what remains to allow the animals of the island to continue to thrive.		https://watch.ecoflix.com/videos/the-evolution-of-madagascar
Demonstrates a unique habitat and how it fulfills the various and particular needs of the humans and animals that reside in it, and changes their way of life	A Steppe Ahead	24 minutes 2 seconds	The Eastern Mongolian Steppe’s are a unique ecosystem that need saving. As Mongolian society evolves and progresses, residents of the Steppes and government officials must decide how to change with the times. Relates to how different habitats fulfill the various needs of animals and humans.		https://watch.ecoflix.com/videos/a-steppe-ahead
Demonstrates a unique habitat and how it fulfills the various and particular needs of the animals that reside in it	Coral Reefs, The Lungs of our planet	1 minute 14 seconds	An up-close view into the diversity of the underwater ecosystem and the little-known species that inhabit it. Includes exotic species such as moray eels, barracuda, corals, sharks, fish, and pacific cleaner shrimp, and how they depend on each other. Emphasizes the importance of the habitat these species reside in.		https://watch.ecoflix.com/videos/coral-reefs-the-lungs-of-our-planet
Identify and name a variety of plants and animals in their habitats, including microhabitats	Planet Bonehead - Episode 7: Back to the Gator	33 minutes, 3 seconds	Animated show LESSON OBJECTIVEed towards younger audiences, educating about alligators and their natural history.		https://watch.ecoflix.com/videos/planet-bonehead-episode7-back-to-the-gator

PLANTS

LESSON OBJECTIVE ONE

Observe and describe how seeds and bulbs grow into mature plants

LESSON OBJECTIVE TWO

Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
How the life cycle of a plant allowed a desert to turn into fertile land when people cared for the gardens	Darius Fisher - Sekem's Future with John D. Liu	8 minutes 20 seconds	How Sekem transformed from a desert to a lush garden paradise thanks to the hard work of inhabitants. Includes the work that the gardens required to thrive given the conditions of the landscape.		https://watch.ecoflix.com/videos/darius-fisher-sekem-s-future-with-john-d-liu
Describes how a suitable environment allowed flora and fauna to thrive following a natural disaster	Pepperwood: Rising From The Ashes	50 minutes 17 seconds	Pepperwood was destroyed by a fire, but has bounced back to act as a living laboratory educating about the diversity of flora and fauna in the world. Includes discussion of weather, water, plants, animals, and ecosystem indicators.		https://watch.ecoflix.com/videos/pepperwood-rising-from-the-ashes
Shows how invasive species threaten the balance of a particular, unique ecosystem	Long Point	52 minutes, 39 seconds	Episode in the series Striking Balance, examining how the world's longest freshwater sand spit is threatened by the phragmites plant, an invasive species. Shows how forests and wetlands thrive in this particular environment.		https://watch.ecoflix.com/striking-balance/season:1/videos/long-point
Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	Imperfect Foods	6 minutes, 7 seconds	Profiles Jacobs Farm, a leading organic farm, and their fight to end billions of pounds of food waste.		https://watch.ecoflix.com/videos/food-creative-food-imperfect-foods

ANIMALS

LESSON OBJECTIVE ONE

Notice that animals, including humans, have offspring which grow into adults

LESSON OBJECTIVE TWO

Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)

LESSON OBJECTIVE THREE

Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Identifies chimpanzees, humans' closest living relatives, describing their diet and exercise regimen, emphasizing the important of exercise	Sanctuary: Chimp Haven	30 minutes 35 seconds	Profile on Chimp Haven sanctuary in Louisiana, providing home and care to chimpanzees retired from laboratory research or the entertainment industry. Includes a focus on their "gympanzee" program, which helps overweight chimpanzees exercise with personal trainers to reach a healthy weight.		https://watch.ecoflix.com/videos/chimp-haven
Identifies the structures of elephants, describing their diet and way of life, as well as how young elephants grow into adults	Saving the Last Tuskers	20 minutes 57 seconds	An entertaining look at how humans are harming elephants and how other humans are helping these elephants. Profiles Richard Moller, co-founder and CEO of the Tsavo Trust, working to rescue and rehabilitate elephants who are the victim of human activity and natural disasters.		https://watch.ecoflix.com/videos/saving-the-last-tuskers
Emphasizes the types of food animals in a particular aquatic environment eat, while providing an example of humans engaging in healthy physical activity (diving)	The André Musgrove Collection	1-9 minute shorts	This filmmaker and diver highlights the beauty and diversity of shark species, as well as the power of the oceans as a whole and the threats they are facing. Includes information on the species he dives with, the impact of human activity on these species, and specific conservation efforts to save them.	Shorts: Child of the Cenote: Follows a female free diver investigating the underwater caves of the Mexican Yucatan Peninsula Sharks of South Africa: Explores and documents conservation efforts relating to the marine life, particularly the apex predators, of South Africa's oceans Diving the Dragon: Divers explore underwater reef ecosystems, documenting eels, rays, and turtles in their natural habitat Coral Reefs, The Lungs of our planet: An up-close view into the diversity of the underwater ecosystem and the little-known species that inhabit it. Includes exotic species such as moray eels, barracuda, corals, sharks, fish, and pacific cleaner shrimp, and how they depend on each other. Emphasizes the food chain and the importance of the habitat these species reside in Deep in Thought: Short film about marine life told through the eye of a boater and her dog	https://watch.ecoflix.com/the-andre-musgrove-collection-1
Details the significance of beavers in their environment and their basic needs for survival, as well as how they contribute to the basic needs of the species around them	Beavers Without Borders	16 minutes	Beavers used to be an integral part of the UK landscape but they were pushed to extinction over 400 years ago, hunted for their meat, oils and fur. With the loss of this species came the loss of balance and ultimately a less resilient environment. Restoring beavers helps the UK in tackling climate change, preserving biodiversity, and preventing flash floods.		https://watch.ecoflix.com/videos/beavers-without-borders
Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	Hot Poets	3-5 minutes	Readings of 12 poems by their authors, each regarding the environment and our role in saving it.	1.Hot Poets - Matt Harvey, Praise the Whale 2.Hot Poets - Yomi Sode, Chaos in the Sky and on Land 3.Hot Poets - Johnny Fluffypunk, Put the Children by a Tree 4.Hot Poets - Elvis McGonagall, Extreme Weather Report 5.Hot Poets - Repeat Beat Poet, A Rhyming Guide to Climate Litigation 6.Hot Poets - Joelle Taylor, Could Mr Sands Please Come to Reception 7.Hot Poets - Chris Redmond, Green Futures; The Earth is Waiting 8.Hot Poets - Francesca Beard, Geology Rocks 9.Hot Poets - Zena Edwards, Mother of the Forest 10.Hot Poets - Vanessa Kisuule, The Earth's Thirst 11.Hot Poets - Toni Giselle Stuart, Ocean Home 12.Hot Poets - Liv Torc, When You Know the Water's Coming	https://watch.ecoflix.com/hot-poets-1
Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food	Planet Bonehead - Episode 6: Bird Trek The Wrath of Falcon	34 minutes, 55 seconds	Animated show LESSON OBJECTIVEed towards younger audiences, educating about birds of prey, the food chain, and wildlife threats to agriculture.		https://watch.ecoflix.com/videos/planet-bonehead-episode6-bird-trek-the-wrath-of-falcon



YEAR THREE

PLANTS, ANIMALS, ROCKS & LIGHT

PLANTS

LESSON OBJECTIVE ONE

Identify and describe the functions of different parts of flowering plants: roots, stem/ trunk, leaves and flowers

LESSON OBJECTIVE TWO

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant

LESSON OBJECTIVE THREE

investigate the way in which water is transported within plants

LESSON OBJECTIVE FOUR

explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Shows how invasive species threaten the balance of a particular, unique ecosystem. Identifies requirements of plants for life and growth.	Long Point	52 minutes, 39 seconds	Episode in the series Striking Balance, examining how the world’s longest freshwater sand spit is threatened by the phragmites plant, an invasive species. Shows how forests and wetlands thrive in this particular environment.		https://watch.ecoflix.com/striking-balance/season:1/videos/long-point
Identifies requirements of plants for life and growth in regard to soil and the nutrients it provides, while taking the effects of weather into account.	Soil Food	50 minutes 11 seconds	John Liu, a filmmaker and soil scientist, documents how China’s Loess plateau went from barren to fertile thanks to a 15-year-long project. Liu is focused on changing the landscape, while taking into consideration the floods, mudslides, and famine the region is known for.		https://watch.ecoflix.com/videos/soil-food-web
Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	Heat Illness	4 minutes, 17 seconds	Profiles Veritable Vegetable, a produce wholesale distributor which demonstrates a radically different approach to food distribution. Since 1974, they have supported sustainable agriculture and organic farmers to create better access to healthy food.		https://watch.ecoflix.com/videos/food-creative-food-heat-illness
Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant	Veritable Vegetable	3 minutes, 38 seconds	Profiles Veritable Vegetable, a produce wholesale distributor which demonstrates a radically different approach to food distribution. Since 1974, they have supported sustainable agriculture and organic farmers to create better access to healthy food.		https://watch.ecoflix.com/videos/food-creative-food-veritable-vegetable

ANIMALS

LESSON OBJECTIVE ONE

Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat

LESSON OBJECTIVE TWO

Identify that humans and some other animals have skeletons and muscles for support, protection and movement

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Relates to the nutritional and physical needs of a particular species.	Green Cauldron - Innes Larkin	2 minutes 50 seconds	Innes Larkin, plants fruit trees to ensure that Australia's Glossy Black Cockatoos have access to a sufficient food source. Examines the nutritional needs of a particular species and how the ecosystem can support these.		https://watch.ecoflix.com/wilddiaries-2/season:1/videos/green-cauldron-innes-larkin
Relates to the nutritional and physical needs of a particular species, discussing their nutrition and muscles in regard to care and enrichment.	Remaking Wolf Connection	28 minutes 16 seconds	Wolf Connection sanctuary in California provides care to wolves and wolf dogs in need of rescue. The film also explores the sanctuary's efforts to help underserved youth in California by allowing them to connect with the rescued wolves.		https://watch.ecoflix.com/videos/remaking-wolf-connection
Relates to the nutritional and physical needs of a particular species.	Toki Tales	51 minutes 10 seconds	Scientists in Japan are able to reintroduce the native toki, which became extinct in the wild 30 years ago. The bird was bred in captivity and the chicks were reintroduced to the wild. The breeding program took into consideration the physical needs of the birds to optimize success.		https://watch.ecoflix.com/videos/toki-tales
Identify that humans and some other animals have skeletons and muscles for support, protection and movement	Koko Meets Robin Williams	4 minutes, 29 seconds	Watch Koko the gorilla, who communicated through a modified form of American Sign Language, meet Robin Williams. The two were fast friends, and shared a special bond evident in this video.		https://watch.ecoflix.com/videos/koko-meets-robin-williams

ROCKS

LESSON OBJECTIVE ONE

Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties

LESSON OBJECTIVE TWO

Describe in simple terms how fossils are formed when things that have lived are trapped within rock

LESSON OBJECTIVE THREE

recognise that soils are made from rocks and organic matter

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Physical geography including rocks, weathering, soils, weather, and climate	Beneath New Zealand: Mountains & Caves	42 minutes 25 seconds	Explores New Zealand's unique landscape and how it has been caused by snow, ice, wind, water, and seismic events. Focuses on the tectonic and erosive forces that create this distinct alpine environment.		https://watch.ecoflix.com/videos/beneath-new-zealand-mountains-caves
Describe in simple terms how fossils are formed when things that have lived are trapped within rock	Planet Bonehead - Episode 7: Back to the Gator	33 minutes, 3 seconds	Animated show LESSON OBJECTIVEed towards younger audiences, educating about alligators and their natural history.		https://watch.ecoflix.com/videos/planet-bonehead-episode7-back-to-the-gator
Recognise that soils are made from rocks and organic matter	Natural World Facts - The Secret Life of Rock Pools	11 minutes, 19 seconds	As the tide recedes along the shores, it uncovers a truly alien world of rock pools. At first look, the landscape presents little more than a barren, lifeless stretch of thick mud and rotting seaweed, but it's a unique habitat that's fun for all the family to enjoy.		https://watch.ecoflix.com/videos/the-secret-life-of-rock-pools

TEACHER NOTES

LIGHT

LESSON OBJECTIVE ONE

Recognise that they need light in order to see things and that dark is the absence of light

LESSON OBJECTIVE TWO

Notice that light is reflected from surfaces

LESSON OBJECTIVE THREE

Recognise that light from the sun can be dangerous and that there are ways to protect their eyes

LESSON OBJECTIVE FOUR

Recognise that shadows are formed when the light from a light source is blocked by an opaque object

LESSON OBJECTIVE FIVE

find patterns in the way that the size of shadows change

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Recognizes the significance of light and the difference it can make in someone's life, as well as the detriment of only having access to natural light.	Watts of Love collection on GEMTV	1-10 minutes / video	Profiles Watts of Love, an organization providing safe, solar-powered lamps to those living in darkness or using dangerous kerosene lamps in developing countries. Collection includes video diaries of trips to various countries, as well as the technology behind these lamps and the impact they have on the lives of those the organization donates to.	Episodes include vlogs to various impoverished communities, videos explaining the technology behind the lights, and personal testimonies from recipients and volunteers,	



YEAR FOUR

HABITATS, ANIMALS & ELECTRICITY

HABITATS

- LESSON OBJECTIVE ONE**

Recognise that living things can be grouped in a variety of ways
- LESSON OBJECTIVE TWO**

Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- LESSON OBJECTIVE THREE**

Recognise that environments can change and that this can sometimes pose dangers to living things

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Recognizes that environments can change and that this affects the lives of those that inhabit it.	Soil Food	50 minutes 11 seconds	John Liu, a filmmaker and soil scientist, documents how China's Loess plateau went from barren to fertile thanks to a 15-year-long project. Liu is focused on changing the landscape, while taking into consideration the floods, mudslides, and famine the region is known for.		https://watch.ecoflix.com/videos/soil-food-web
Recognizes that our environment is changing and that this poses danger to people and animals.	COP26: speeches of note	6-47 minutes	Important speeches from COP26, the 2021 United Nations Climate Change Conference. Covers how the environment is changing, what dangers these pose to humans and other animals, and what governments and leaders around the world are doing to reduce or reverse the harmful effects of climate change.	11 speeches: Elizabeth Wathuti, environmentalist Mario Draghi, Prime Minister of Italy Mia Mottley, Prime Minister of Barbados Sir David Attenborough, Naturalist and Broadcaster Charles, Prince of Wales António Guterres, UN Secretary General Txai Surui, activist Brianna Fruean, environmentalist Boris Johnson, British Prime Minister Joe Biden, US President Barack Obama, former US President	https://watch.ecoflix.com/cop26-wise-words-for-the-world
Looks at how some environmental activists are working to protect environments from changing in a negative way.	Eco Trailblazers (series)	5-10 minutes / episode	Profiles conservationists from around the world working to protect our planet and the species that inhabit it. Subjects include James Levelle, Mahesh Bhatt, Emily Stanford, and Lizzie Daly, each working on various conservation projects in diverse locations.	4 episodes: James Levelle, environmentalist and documentarian Emily Stanford, conservationist, filmmaker, and biologist Mahesh Bhatt, vet who works with wild animals Lizzie Daly, conservationist, wildlife biologist, and filmmaker	https://watch.ecoflix.com/eco-trailblazers
Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	Hot Poets	3-5 minutes	Readings of 12 poems by their authors, each regarding the environment and our role in saving it.	1.Hot Poets - Matt Harvey, Praise the Whale 2.Hot Poets - Yomi Sode, Chaos in the Sky and on Land 3.Hot Poets - Johnny Fluffypunk, Put the Children by a Tree 4.Hot Poets - Elvis McGonagall, Extreme Weather Report 5.Hot Poets - Repeat Beat Poet, A Rhyming Guide to Climate Litigation 6.Hot Poets - Joelle Taylor, Could Mr Sands Please Come to Reception 7.Hot Poets - Chris Redmond, Green Futures; The Earth is Waiting 8.Hot Poets - Francesca Beard, Geology Rocks 9.Hot Poets - Zena Edwards, Mother of the Forest 10.Hot Poets - Vanessa Kisuule, The Earth's Thirst 11.Hot Poets - Toni Giselle Stuart, Ocean Home 12.Hot Poets - Liv Torc, When You Know the Water's Coming	https://watch.ecoflix.com/hot-poets-1

ANIMALS

LESSON OBJECTIVE ONE

Describe the simple functions of the basic parts of the digestive system in humans

LESSON OBJECTIVE TWO

Identify the different types of teeth in humans and their simple functions

LESSON OBJECTIVE THREE

Construct and interpret a variety of food chains, identifying producers, predators and prey

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Includes segments involving the digestive system and teeth of non-human animals.	Free Billy	51 minutes 22 seconds	Documents the legal fight led by lawyer David Casselman to free Billy the elephant from the LA Zoo, where he has been mistreated for decades. Focuses on the physical needs of elephants and how the zoo has ignored these in the case of Billy.		https://watch.ecoflix.com/videos/free-billy
Identifies chimpanzees, humans' closest living relatives, describing their diet, nutritional needs, and digestive system	Sanctuary: Chimp Haven	30 minutes 35 seconds	Profile on Chimp Haven sanctuary in Louisiana, providing home and care to chimpanzees retired from laboratory research or the entertainment industry.		https://watch.ecoflix.com/videos/chimp-haven
Identifies elephants' diet, nutritional needs, and digestive system, and how these requirements are met while in captivity at the sanctuary.	Sanctuary: Elephant Nature Park	29 minutes 53 seconds	Profile on Elephant Nature Park in Thailand, rescuing and rehabilitating elephants from human exploitation. Includes segment on the elephants' daily nutritional needs and how the sanctuary keeps up with these.		https://watch.ecoflix.com/videos/elephant-nature-park
Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	Natural World Facts - Wildlife of Richmond Park	11 minutes, 39 seconds	Richmond Park in England is home to an abundance of wildlife, from majestic Red Deer to Stag Beetles. Explore the biodiversity of this unique ecosystem and join us as we look for wildlife in one of the Britain's oldest National Parks.		https://watch.ecoflix.com/videos/wildlife-of-richmond-park

ELECTRICITY

LESSON OBJECTIVE ONE

Identify common appliances that run on electricity

LESSON OBJECTIVE TWO

Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers

LESSON OBJECTIVE THREE

Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery

LESSON OBJECTIVE FOUR

recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit

LESSON OBJECTIVE FIVE

recognise some common conductors and insulators, and associate metals with being good conductors

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Recognizes the significance of light and the difference it can make in someone's life, as well as the detriment of only having access to natural light.	Watts of Love collection on GEMTV	1-10 minutes / video	Profiles Watts of Love, an organization providing safe, solar-powered lamps to those living in darkness or using dangerous kerosene lamps in developing countries. Collection includes video diaries of trips to various countries, as well as the technology behind these lamps and the impact they have on the lives of those the organization donates to.	Episodes include vlogs to various impoverished communities, videos explaining the technology behind the lights, and personal testimonies from recipients and volunteers,	

TEACHER NOTES



YEAR FIVE

LIVING THINGS AND THEIR HABITATS

LIVING THINGS AND THEIR HABITATS

LESSON OBJECTIVE ONE

Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

LESSON OBJECTIVE TWO

Describe the life process of reproduction in some plants and animals

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Describes the life cycles of a mammal, and reproduction in some animals	Born Free Foundation collection	1-6.5 minutes / video	Displays the work of the Born Free Foundation, an international charity campaigning to protect wild animals in their natural habitats, keep wild animals out of captivity, and rescue wild animals in need. Focuses on the conservation of big cats, including lions and tigers.	6 videos: Release of The King: Release of a lion cub formerly kept as a pet into the wild. Shamwari in Action: Profiles a big cat sanctuary and rescue/rehabilitation center Tigers in Crisis: explores threats to wild tigers and how we can help. Last Lions of Meru: explores threats to wild lions and how we can help. Virginia McKenna OBE visits Lyons of London Meri in action: what the team at Meru National Park does on a daily basis	https://watch.ecoflix.com/born-free
Identifies elephants' diet, nutritional needs, and digestive system, and how these requirements are met while in captivity at the sanctuary.	Sanctuary: Elephant Nature Park	29 minutes 53 seconds	Profile on Elephant Nature Park in Thailand, rescuing and rehabilitating elephants from human exploitation. Includes segment on the elephants' daily nutritional needs and how the sanctuary keeps up with these.		https://watch.ecoflix.com/videos/elephant-nature-park
Identifies and describes the life of a common reptile in the UK	Natural World Facts Episode 3 - Slow Worms The Complete Guide	5 minutes 12 seconds	Slow Worms are legless lizards that are native to the UK. Learn about these beautiful reptiles and where to find them.		https://watch.ecoflix.com/videos/slow-worms-the-complete-guide



YEAR SIX

HABITATS, EVOLUTION & ELECTRICITY

HABITATS

LESSON OBJECTIVE ONE

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals

LESSON OBJECTIVE TWO

Give reasons for classifying plants and animals based on specific characteristics

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Identifies, describes, and compares the structure of birds and mammals, including carnivores, herbivores, and omnivores, and shows how these animals are classified based on characteristics	Borneo Jungle Diaries (series)	9-14 minutes / episode	Alex Alexander, a young actress and student, joins scientists to discover the flora and fauna of Borneo. Offers an in depth look at hornbills, tarsiers, clouded leopards, elephants, sun bears, pangolins, and proboscis monkeys.	7 episodes: Proboscis monkey Tarsier Pangolin Hornbill Clouded leopard Elephant Sun bear	https://watch.ecoflix.com/borneo-jungle-diaries-1
Identifies, describes, and compares the structure of aquatic animals, including carnivores, herbivores, and omnivores, and shows how these animals are classified based on characteristics	Borneo Ocean Diaries	11-16 minutes / episode	Alex Alexander, a young actress and student, joins scientists to discover the diversity of the oceans around Borneo. Species profiled included snakes, sea turtles, shrimp, sharks, and sting rays.	8 episodes: Alex learns to scuba dive Alex does her first open water dive and discovers turtles Alex and Reef Check Malaysia travel to Mantani Island for a convention on sea turtles Alex spends a day on a shrimp trawl learning about sustainable fishing Alex explores the life cycle of a sea turtle by visiting Turtle Island, also known as Selingan Alex and Reef Check Malaysia return to Mantani Island to learn about plastic pollution and efforts to combat this issue Alex and a scientist explore a fish market that is selling baby sharks and stingrays Alex goes on a dive to see reef ecosystems and collect trash	https://watch.ecoflix.com/borneo-ocean-diaries

EVOLUTION

LESSON OBJECTIVE ONE

Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

LESSON OBJECTIVE TWO

Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

LESSON OBJECTIVE THREE

Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Identifies how a habitat has changed over time but still provides for the basic needs of the animals living in it, and how animals adapt over time to become more suitable to their environment	The Evolution of Madagascar	42 minutes 17 seconds	Examines the diversity of Madagascar's unique ecosystems. The forest is nearly gone, but people are working to preserve what remains to allow the animals of the island to continue to thrive.		https://watch.ecoflix.com/videos/the-evolution-of-madagascar
Recognises that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	Australian Penguins	52 minutes 13 seconds	Penguin Island, off the coast of Australia, hosts a Discovery Centre that treats and houses penguins that have been injured, orphaned, or abandoned. They are typically rescued as chicks, so the series demonstrates how offspring are similar to and differ from their parents.		https://watch.ecoflix.com/videos/australian-penguins

TEACHER NOTES

ELECTRICITY

LESSON OBJECTIVE ONE

Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit

LESSON OBJECTIVE TWO

Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches

LESSON OBJECTIVE THREE

Use recognised symbols when representing a simple circuit in a diagram

TEACHER NOTES

LESSON OBJECTIVE	FILM NAME	DURATION	SYNOPSIS	EPISODES	RILM LINK
Recognizes the significance of light and the difference it can make in someone's life, as well as the detriment of only having access to natural light.	Watts of Love collection on GEMTV	1-10 minutes / video	Profiles Watts of Love, an organization providing safe, solar-powered lamps to those living in darkness or using dangerous kerosene lamps in developing countries. Collection includes video diaries of trips to various countries, as well as the technology behind these lamps and the impact they have on the lives of those the organization donates to.	Episodes include vlogs to various impoverished communities, videos explaining the technology behind the lights, and personal testimonies from recipients and volunteers,	