Eco Heroes Climate Handbook

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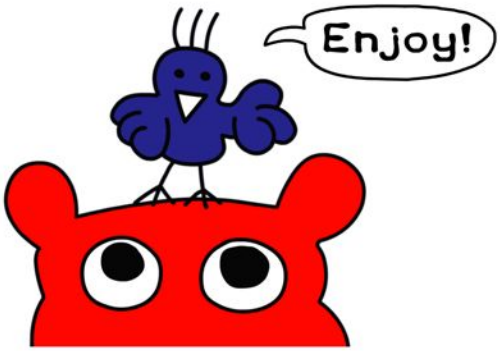
Eco Heroes
Climate Handbook



The Film's Chapter Content

Chapter 1— Introduction to Characters and Global Warming

Human actions can cause both positive and negative consequences to our environment and climate.

Chapter 2 —The Snows of Kilimanjaro and Overview

Because of human-related activities, the Earth is heating up (Global Warming), which causes imbalances in the Earth's systems, including melting glaciers.

Chapter 3 - Fossil Fuels and the Greenhouse Effect

Carbon dioxide is released into the air when fossils fuels are burned, such as when a car uses gasoline. When the Sun's heat gets trapped in the Earth's atmosphere by carbon dioxide, it is called the Greenhouse Effect.

Chapter 4 - The Power of Poop (Methane)

Methane is released into the air from animals; large feedlots of cows produce a lot of manure and methane gas. Methane gas also contributes to the Greenhouse Effect. However, methane gas can be converted into power.

Chapter 5 - Climate Change and People

Climate Change is affecting environmental systems all around the world. These effects vary and can be very damaging. For example, in some places there are larger storms while in other places there are droughts. Climate Change affects farming, crop production, and the well-being of communities.

Chapter 6 - Climate Change and Animals (the Food Chain)

Climate Change can also "break" food chains and cause animal extinctions, which in turn can affect human food supplies.

Pages 2-19 by Carol L. Malnor, classroom teacher and author of the teacher's guide "How We Know What We Know About Our Changing Climate" and other books and teacher's guides for the classroom. http://www.naturebooksforkids.com/

The Film's Chapter Content

Chapter 7 - Carbon Footprints and Their Sources

The amount of carbon dioxide a person creates is called his or her "Carbon Footprint."

Chapter 8 - One By One, Ton By Ton (Responsibility)

People can reduce their Carbon Footprints (thus helping to stop Global Warming and Climate Change) through the everyday choices they make.

Chapter 9 - Buying Green Products

Among green choices, people can buy energy efficient and recycled products to reduce their Carbon Footprints.

Chapter 10 - Why Green is SO Important for Our Future

Practicing the 3 Rs (Reducing, Reusing, and Recycling) helps lower a person's Carbon Footprint. A future without making green choices would be very damaging to both animals and humans.

Chapter 11 - The Three Rs and Composting

Additional ways to reduce Carbon Footprints include: using energy efficient appliances, driving less or using fuel-efficient cars, buying locally produced products, or growing a garden, consuming less meat and dairy products. (See additional list at the end of the eHandbook).

Chapter 12 - Green Power and Carbon Offsets

Once people do all they can to reduce their Carbon Footprints, they can purchase Carbon Offsets. Carbon Offsets balance out the carbon you create. So, if you end up having an annual Carbon Footprint of four carbon tons, you can spend money to plant and protect trees in rainforests (one tree can absorb one ton of carbon in its lifetime).

Science Standards Correlations

Below are the standards addressed and reinforced by the content of the film *Eco Heroes Save The Climate*

California Science Standards

- Kindergarten: 1b, 2b, 3c (Physical, Life, and Earth Sciences)
- First Grade: 1b, 2c, 3c (Physical, Life, and Earth Sciences)
- Second Grade: 3e (Earth Sciences)
- Third Grade: 1a, 1b, 1c, 1f, 2b, 3c, 3d (Physical and Life Sciences)
- Fourth Grade: 2a, 2b, 3b (Life Sciences)
- Fifth Grade: 1g, 4c (Physical and Earth Sciences)
- Sixth Grade: 3b, 4a, 5a, 5e, 6a (Heat, Energy in the Earth System, Ecology, and Resources)

National Science Education Content Standards (K-4)

- B: Physical Science—Light, heat, electricity, and magnetism
- C: Life Science—Organisms and environments
- D: Earth and Space Science—Properties of earth materials
- F: Science in Personal and Social Perspectives—Changes in environments

National Science Education Content Standards (5-8)

- B: Physical Science—Transfer of Energy
- C: Life Science—Populations and ecosystems
- D: Earth and Space Science—Structure of the Earth system
- F: Science in Personal and Social Perspectives—Populations, resources, and environments

Climate Literacy: Essential Principles and Fundamental Concepts

1. Life on Earth has been shaped by, depends on, and affects climate.
2. We understand the climate system through observation and modeling.
3. The Sun is the primary source of Earth's energy.
4. Earth's weather and climate system are the result of complex interactions between land, ocean, ice, and atmosphere.
5. Earth's weather and climate vary over time and space.
6. Recent climate change is primarily caused by human activities.
7. Earth's climate system is influenced by human decision, which are complex and involve economic costs and social values.

Climate Change Lesson Plans

Grade Level: May be adapted for grades K-8

Objectives: After viewing and discussing the video:

- students will understand some of the causes and consequences of Climate Change and related vocabulary.

- students will understand the concept of "Carbon Footprint" and know several strategies for reducing it.

Time: 30 minutes to view film; 30 minutes to discuss film. Additional class periods for extended activities.

Materials: DVD and equipment for viewing.

Teacher Prep: Copy handouts of Review Questions, 1 per group. Make sets of Vocabulary Flash Cards, 1 per pair.

Background Information: Read the following clarifications provided from *How We Know What We Know about Our Changing Climate Teacher Guide*:

- **What's the difference between climate and weather?**

The difference is basically a measure of time. The term "weather" refers to the conditions of the atmosphere over a short period of time. The term "climate" refers to the average weather for a particular region and time period, usually taken over 30 years. Climatic elements include temperature, precipitation, humidity, wind velocity, and other weather conditions.

- **What's the difference between Climate Change and Global Warming?**

The term "Climate Change" refers to a change in one of the climatic elements. The climatic element that is now receiving a lot of attention is temperature. Scientists agree that the Earth's average temperature has increased approximately 1 degree Fahrenheit since 1880. Even though a few regions on Earth are actually becoming cooler and others are experiencing few changes, the overall trend across the whole planet is a warming trend. This Climate Change trend is called "Global Warming." The Earth has undergone warming and cooling trends for millions of years, but what makes this trend different is the rate and intensity at which it is happening and that it is caused by people.

- **What is a Carbon Offset?**

A Carbon Offset balances out the carbon dioxide a person or company releases into the air. Carbon Offsets typically include renewable energy, energy efficiency, and reforestation projects. For example, you can buy a Carbon Offset that saves trees in the rainforest from being cut down. The trees are then able to remove carbon dioxide from the air.

Climate Change Lesson Plans

Introduction

1. Brainstorm a list of information your students already know about Climate Change.
2. Brainstorm a second list of questions they have about Climate Change.

View the Film

1. Introduce the film by explaining it is about cartoon animals that live in Africa. These animals learn about Climate Change and may have the answers to some of your students' questions.
2. Write the names of the main characters on the board: Peep the Bird, Bob the Rodent, Suzanne the Crystal Goddess, and Simon the Hippo.
3. Show the film (running time 28:28).

Suggested Activities

1. Discuss each of the main characters' personalities and special skills

- Peep the Bird was very concerned about Climate Change and used his laptop to get information.
- Bob the Rodent didn't care about Climate Change at first, but he changed his mind about it when he realized how it might affect him and other rodents.
- Suzanne the Crystal Goddess kept everyone in line and used magic, but her magic couldn't solve the problems of Climate Change.
- Simon the Hippo was everyone's friend, and he came up with the idea of "one by one, ton by ton" as a way to reduce everyone's Carbon Footprints.

2. Review Questions

For younger students:

Ask the Review Questions most appropriate for your students. While discussing the answers, distinguish between the fictional aspects of the cartoon characters and the factual scientific information. Explain new vocabulary words in context.

For older students:

Divide students into small groups. Give each group a handout of Review Questions. Allow time for each group to answer the questions. Bring the class back together and discuss the correct answers. If time permits, replay the film chapter by chapter, discussing the answers along the way.

Additional Review Questions:

Chapter 1: Find Mt. Kilimanjaro on a map.
Chapter 5: Find the locations on the map where people are affected by Climate Change.
Chapter 6: Identify other food chains.

3. Vocabulary Development

For older students:

Divide students into pairs. Give each pair a set of vocabulary flash cards and have them take turns asking each other terms and definitions.

4. Take Action

Ask students what actions they're already doing to help stop Climate Change. Make a list of their actions. Brainstorm a second list of actions they would like to take. Spark ideas by sharing the concepts from "Simple Ways to Be An Eco Hero" at the end of this climate handbook (pages 42 to 45). If appropriate, choose one or more items to do as a class.

Closing the Lesson

1. Refer to the list of questions children brainstormed before watching the cartoon, and check to find out which questions were answered.
2. If some questions weren't answered in the cartoon, provide resources for finding the answers. Additional information may be found at www.hippoworks.com.

Additional Activities

For all ages:

Sing and play the songs from the movie and discuss the meaning of the lyrics. Use the MP3s or a guitar (see tablature on pages 25-36). Have a Climate Change bake sale and use Suzanne's recipe for Apple Banana Cupcakes (see recipe on pages 39-40).

For younger students:

Coloring Pages

For older students:

Complete Simon's Crossword
Peep's Word Search

Climate Change Review Questions

Episode #1

Q: In the cartoon's photos, how has the snow changed on Mt. Kilimanjaro?

Q: What would happen if everyone in the world threw their garbage on the ground like Bob?

Q: Why are the animals going to the mountain by hippo instead of car?

Episode #2

Q: Why are glaciers on mountains disappearing?

Q: What is one thing Peep the Bird suggests we do to help stop the melting?

Episode #3

Q: What are fossil fuels?

Q: What gas is released when fossil fuels are burned to create power?

Q: How does this gas contribute to Global Warming? This is called the _____ Effect.

Episode #4

Q: What gas do cows give off when they poop, fart, and burp?

Q: How does this gas contribute to Global Warming?

Q: How can this gas be used in a positive way?

Q: How can eating less meat help reduce Climate Change?

Episode #5

Q: What are some ways that Climate Change is affecting the environment and people around the world?

Episode #6

Q: What is a food chain?

Q: What plants and animals are in a polar bear's food chain?

Q: How can Climate Change break a food chain?

Episode #7

Q: If magic can't stop Climate Change, what can?

Q: On average, how much carbon dioxide does each person put into the air each year? [This is an average amount for the U.S.] How many hippos does it equal?

Q: What is a Carbon Footprint?

Q: What makes up your Carbon Footprint?

Episode #8

Q: What does "one by one, ton by ton" mean?

Q: Is everyone's Carbon Footprint the same? Why or why not?

Episode #9

Q: Why did Peep and his friends go to the hardware store? What did they buy?

Q: What will happen to some animals if Climate Change continues?

Episode #10

Q: What are three examples of everyday choices to reduce, reuse, and recycle?

Q: What is an Energy Star appliance?

Episode #11

Q: What are some of the choices the characters make to reduce their Carbon and Methane Footprints?

Q: How much carbon dioxide does the average tree remove from the air over its lifetime?

Episode #12

Q: What is a Carbon Offset?

Q: Why did Suzanne and the gang have a Climate Change bake sale?

Q: What are some things you can do to help stop Climate Change?

Climate Change Answer Key

Episode #1

A: *The snow in the photo from 2000 is less than it is in the 1993 photo.*
A: *The planet would be covered in litter.*
A: *They're not taking the car because the fossil fuels burned by cars are adding to Global Warming.*

Episode #2

A: *Because Global Warming is melting their snow and ice.*
A: *We can use renewable energy, like solar panels.*

Episode #3

A: *Fossil fuels, like coal and oil, are made from organic matter like plants and animals that died millions of years ago and have decayed.*
A: *Carbon dioxide is released when fossil fuels are burned to create power.*
A: *Carbon dioxide traps heat from the sun, which causes Global Warming. This is called the Greenhouse Effect.*

Episode #4

A: They give off methane gas.
A: Methane gas traps heat from the sun just like carbon dioxide.
A: Methane can be used to generate electricity.
A: Eating less meat means that less methane gas is produced, causing less Global Warming and Climate Change.

Episode #5

A: *Climate Change is affecting people and the world in many different ways: it's ruining farms and crops (such as tomatoes, wheat, and rice), hurting farmers' livelihoods, drying up rivers, creating more wild fires, droughts, major storms, floods, and other natural disasters like heat waves that give people heat strokes.*

Episode #6

A: *A food chain is a series of plants and animals that rely on each other for food: one organism consumes a lower member and in turn is preyed upon by a higher member.*
A: *A polar bear's food chain consists of plankton that is eaten by a fish that is eaten by a seal that is eaten by a polar bear.*
A: *Climate Change results in an environmental change that kills some plants and animals that other animals depend on for survival. Each animal or plant is a link so when one dies, the animal that relies on it may also die, thus 'breaking the food chain.'*

Episode #7

A: *Our choices can help stop Climate Change.*

A: *On average, each person [in the U.S.] is responsible for putting 20 tons of carbon dioxide into the air each year. That equals 10 hippos (a full grown hippo can weigh around two tons).*

A: *A Carbon Footprint is the amount of carbon dioxide a person is responsible for producing, usually measured over a year.*

A: *Your Carbon Footprint is created when you use things or do activities which burn fuels and release carbon dioxide. These include travel, food, recreation, home, education, and clothing.*

Episode #8

A: *"One by one, ton by ton" means that person by person, one choice at a time, we can reduce creating carbon dioxide, which will help stop Climate Change.*

A: People have different Carbon Footprints because they choose to do activities that create differing amounts of carbon dioxide. Someone who chooses to travel by bus creates less carbon than someone who travels by car.

Episode #9

A: *The animals went to the hardware store to buy things that would help them reduce their Carbon and Methane Footprints. They bought CFL bulbs, eco and recycled products, a rake, a bin, and worms.*

A: *Some animals will become extinct.*

Episode #10

A: *Reduce: turn off lights to reduce energy consumption. Reuse: cut waste by bringing your own lunchbox with reusable containers. Recycle: put paper, bottles, cans, and cardboard into a recycling bin.*

A: It is an appliance that is highly energy efficient.

Episode #11

A: *Choices include: buying a hybrid or electric car, taking the bus, riding a bike, eating less meat, composting, planting a garden, planting a tree, and using renewable or green power such as solar panels.*

A: *One tree on average removes one ton of carbon dioxide from the air in its lifetime.*

Episode #12

A: *A Carbon Offset balances out the carbon dioxide you create. When you buy a Carbon Offset you are investing in programs that remove carbon from the air. For example, you can pay to protect rainforest trees from being cut down or pay to have new trees planted, so they can absorb your carbon dioxide.*

A: *They had a Climate Change bake sale to earn money to pay for their carbon offsets. They also had a Climate Change bake sale because it was a FUN way to go carbon-free!*

Vocabulary

Global Warming	the overall increase in temperature of the Earth's atmosphere.
Optimist	a person who sees the positive in situations.
Consequence	the result of an action.

Vocabulary

Biofuel	a fuel made from organic or living matter, such as corn or poop.
Fossil Fuels	a fuel, such as oil and coal, that has been created from the remains of living organisms that died long ago.
Carbon Dioxide	a greenhouse gas that is given off when fossil fuels are burned.

Vocabulary

Plankton	small organisms that live in the ocean and provide food for fish and other animals.
Food Chain	a series of plants and animals that rely on each other for food.
Carbon Footprint	the amount of carbon dioxide someone creates, often measured in a year.

Vocabulary

Greenhouse Effect	the warming of the Earth caused when heat from the Sun is trapped by carbon dioxide and methane in the atmosphere.
Methane	a gas in the atmosphere that contributes to the Greenhouse Effect. It is given off when animals poop, fart, and burp.
Climate Change	a significant change of weather over time.

Vocabulary

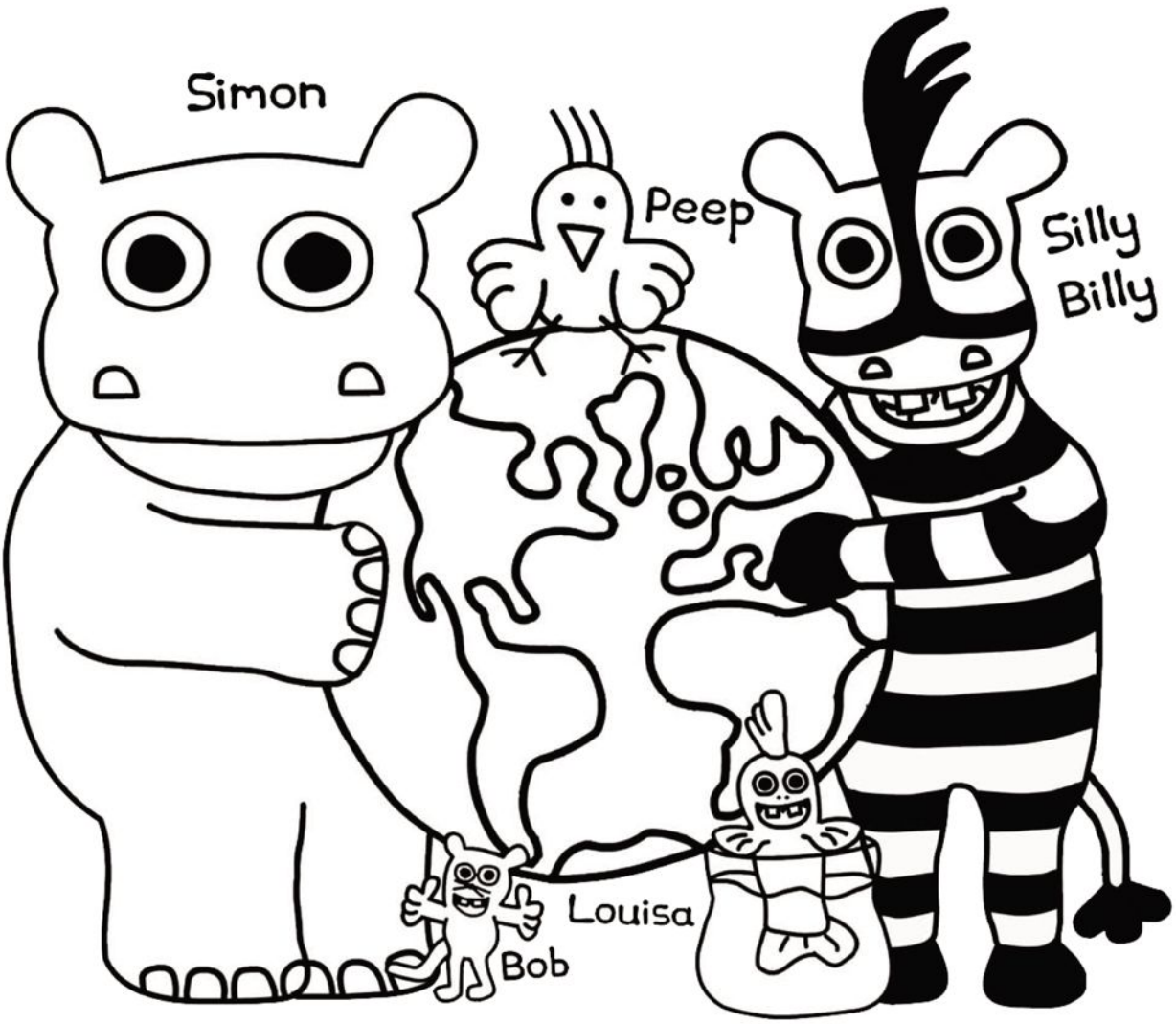
CFL Bulbs	compact fluorescent light bulbs, which save energy.
Reduce	to use less.
Reuse	to use again.

Vocabulary

Recycle	to convert waste into something reusable.
Energy Star Appliance	an energy efficient appliance with a certified logo. Such appliances include stoves, refrigerators, dishwashers, washing machines, and dryers.
Carbon Offset	a project or activity such as a wind farm or reforestation that balances out a person's Carbon Footprint.

by Carol L. Malnor, classroom teacher and author of the teacher's guide "How We Know What We Know About Our Changing Climate" and other books and teacher's guides for the classroom. http://www.naturebooksforkids.com/

Coloring and Conserving Energy with

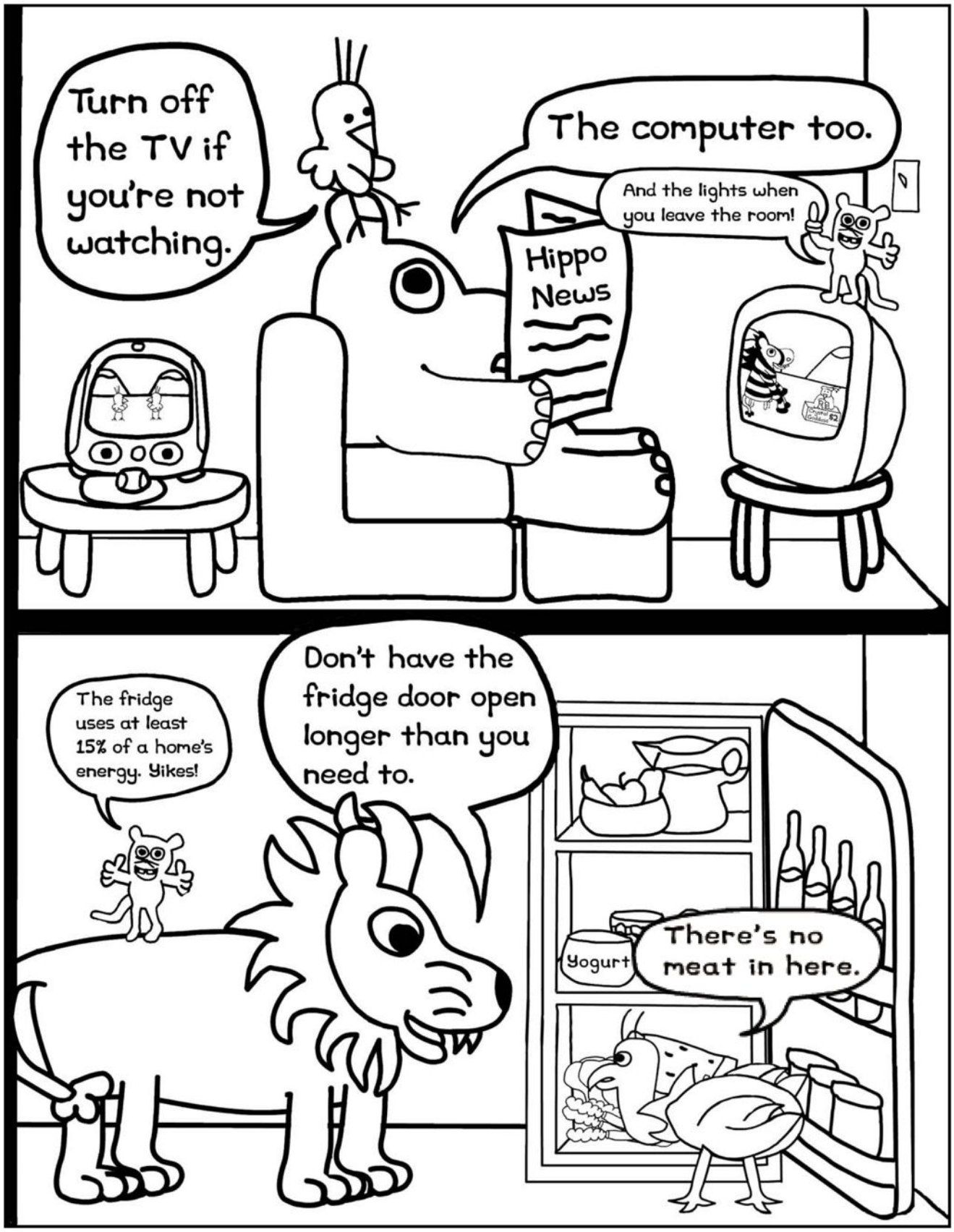


and the rest of the gang from hippoworks.com

by Denis Thomopoulos

Hippo Works

Hippo Works



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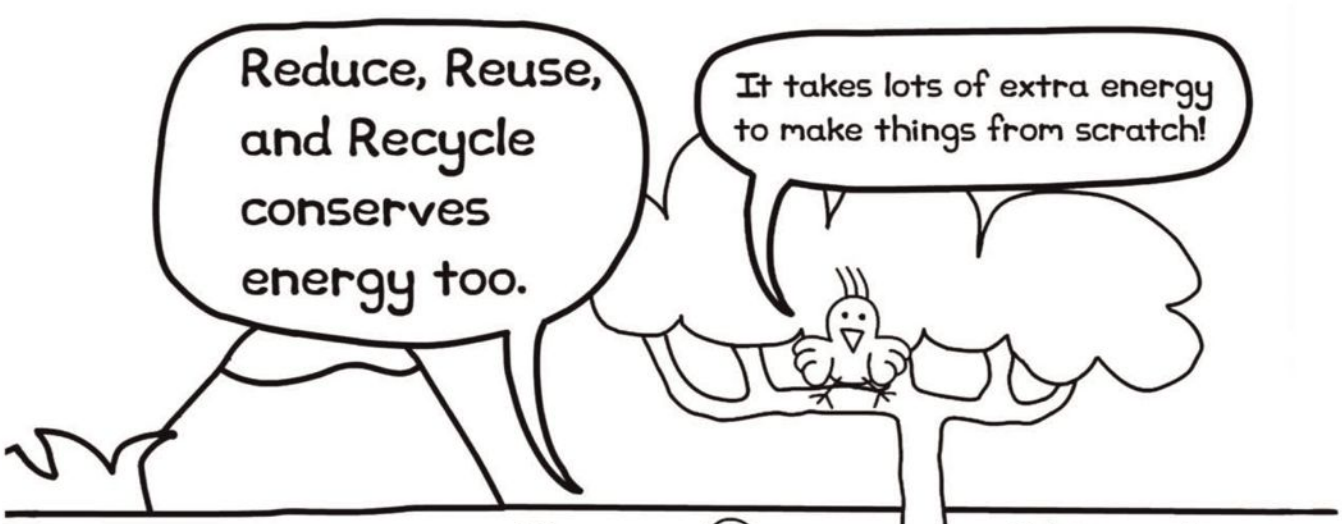

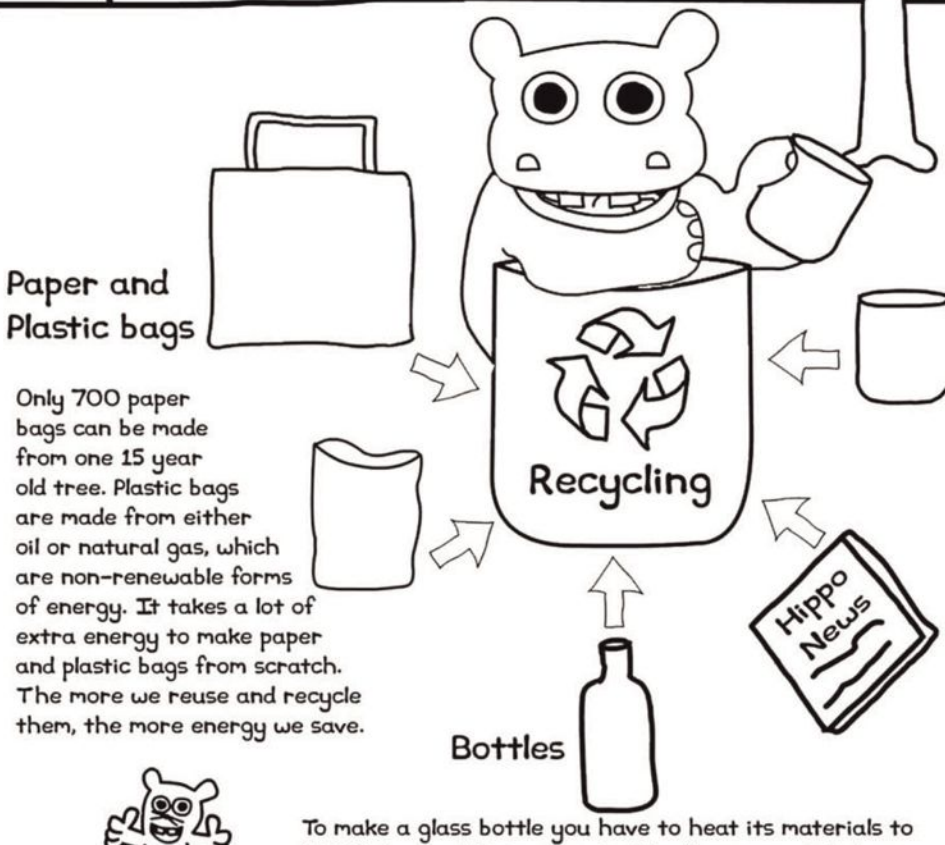

Paper and Plastic bags

Only 700 paper bags can be made from one 15 year old tree. Plastic bags are made from either oil or natural gas, which are non-renewable forms of energy. It takes a lot of extra energy to make paper and plastic bags from scratch. The more we reuse and recycle them, the more energy we save.

Cans

Making cans from recycled aluminium uses 90% less energy than making cans from scratch. You can watch television for three hours from the energy saved from recycling one can!

Papers

Making new paper from recycled paper uses 30% to 55% less energy than making paper from trees (it also reduces related air pollution by 95%).

Bottles

To make a glass bottle you have to heat its materials to 2,500 degrees! But making bottles from recycled glass instead of from scratch uses 32% less energy. The energy saved from one recycled bottle will light a 60 watt light bulb for four hours!

Our little actions make a big difference!

Come see these pages animated with games at hippoworks.com!

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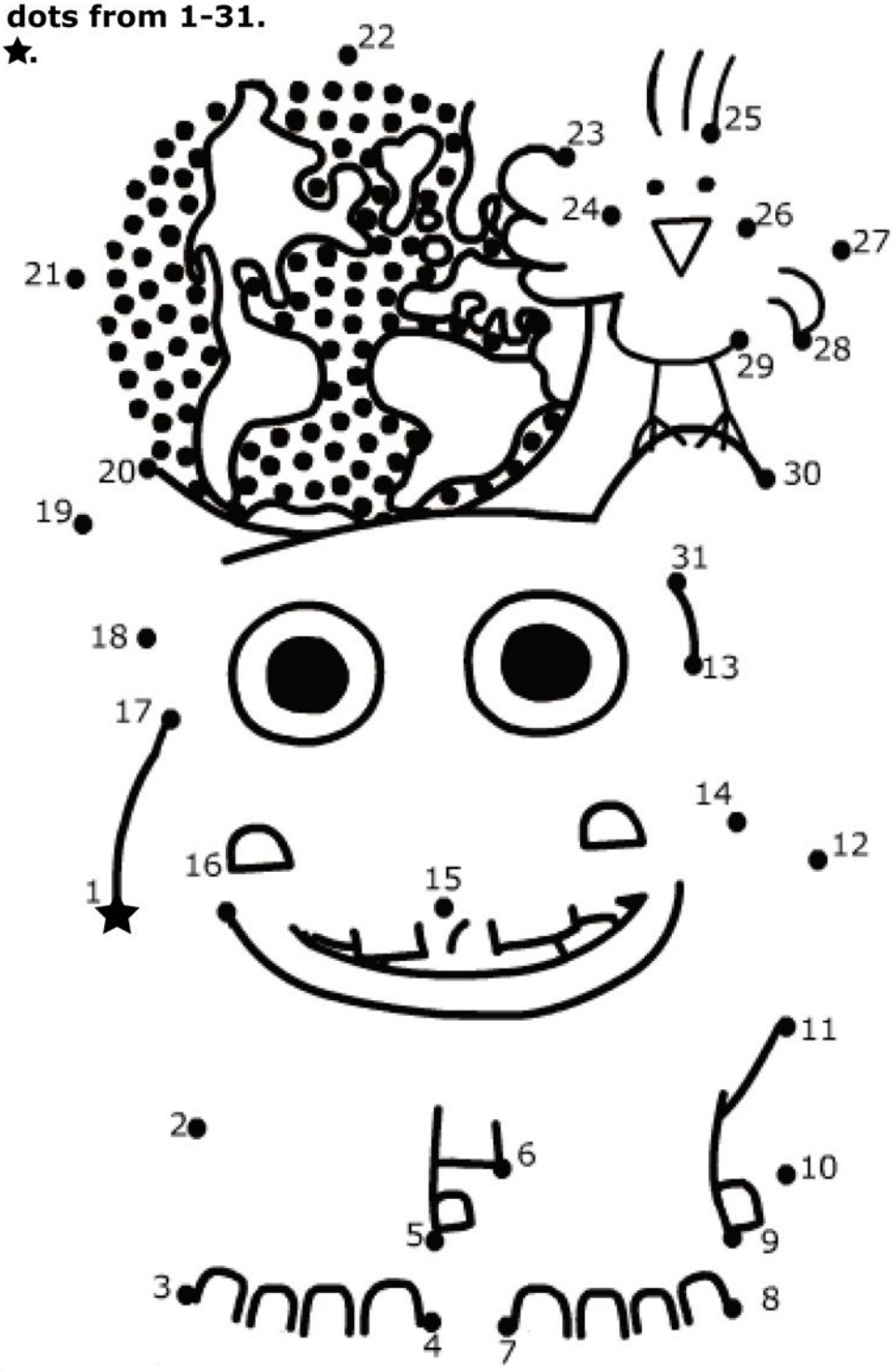
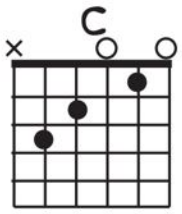
What does Simon Say?

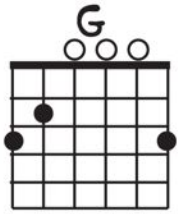
Connect the dots from 1-31.
Start at the ★.



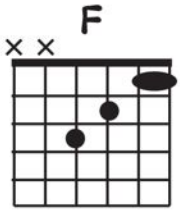
Be an _____ _____!

Hippo Works

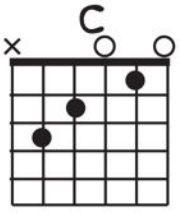




Simon Says,

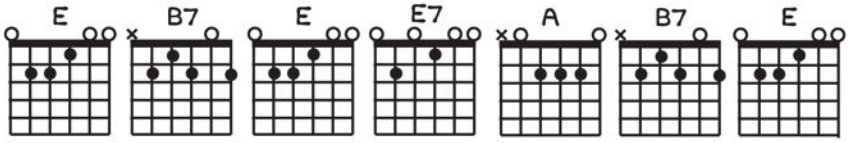


Be An Eco

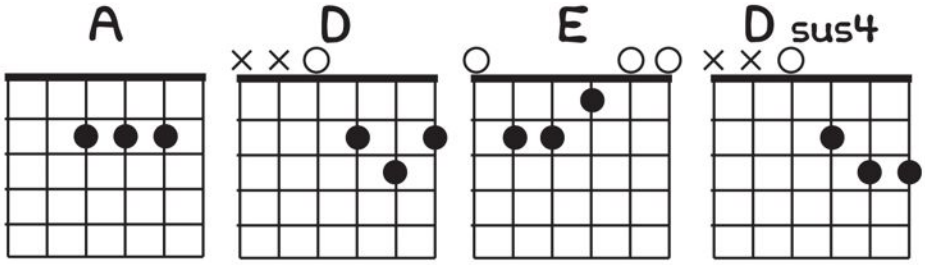


Hero!

Whistle with the musical interlude.



Lyrics and Chords



The Snows of Kilimanjaro
Sung by: Peep

A D A
The Snows of Kilimanjaro
E A
The Snows of Kilimanjaro
D A
The Snows of Kilimanjaro
E A
Will they still be here tomorrow?

D A
I've always been an optimist,
E A
But according to the scientist
D A
By 2020 they won't exist
E A
A simple fact we can't dismiss.

They're melting down
D A
As fossil fuels burn up.

People buy big cars saying,
E A
"Fill'er up!"

All these pollutants
D A
Go in the atmosphere

The earth heats up
E A
And the snows just disappear.

Lyrics and Chords

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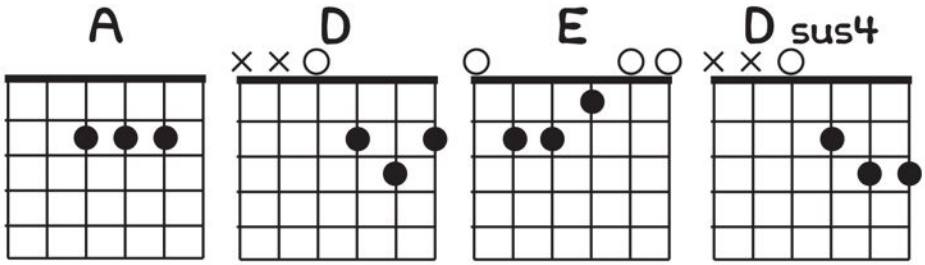


A D A
The Snows of Kilimanjaro

E A
The Snows of Kilimanjaro

D A
The Snows of Kilimanjaro

E A
Can we save them for tomorrow?

A D D sus4 D
Oh look what the warming does to our Earth.

A D A
Bigger storms melting ice could make a worldwide dearth

D D sus4 D
Of the things we have today in balance everywhere

A E A
Let's stop global warming and show we really care

Interlude A D A
E A
D A
E A

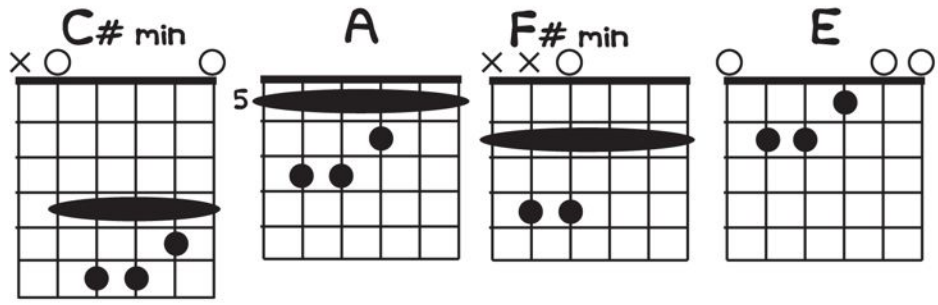
D A
Just make everyday an Earth Day

E A
Renewable energies are the way

D A
To make a better tomorrow

E A
And save the Snows of Kilimanjaro.

Lyrics and Chords



The Power of Poop
Sung by: Suzanne

C# min A
The power of poop!
C# min A
The power of poop!
C# min A
The power of poop, poop,
F# min E
Poop, poop, poop!

Speaking lines...

F# min
A biofuel,

A living fuel,

We can make energy

E
From smelly stool!

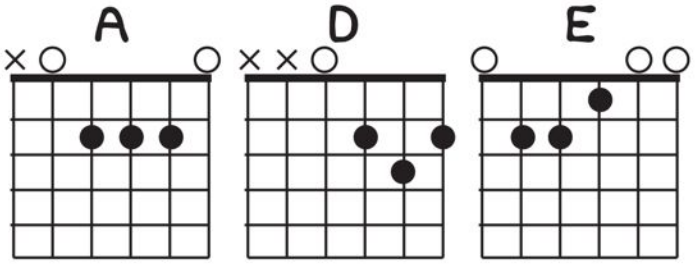
Speaking lines...

'cause we must do something about...

C# min A
The power of poop!
C# min A
The power of poop!
C# min A
The power of poop, poop,
F# min E
Poop, poop, poop!

HIPPO WORKS

Lyrics and Chords



Food Chain Song
Sung by: The Hippo Works Gang

A
I eat you, you eat me.

The circle of life in harmony.

D
The Food Chain!

The Food Chain!

The Food Chain!

A
But now we've got Climate Change

Breaking the links in our chain

Throughout the world it's getting hot!

Africa, The Arctic, here're more hot spots:

D
Antarctica! [Penguin: where's the krill?]

America! [Butterfly: I pollinate!]

*Australia! [*Kuala: Eucalyptus please!]

Lyrics and Chords

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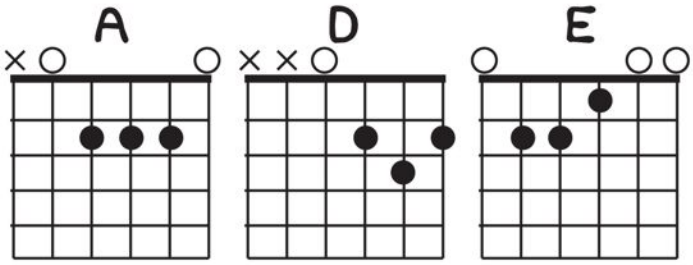


A
Even in the oceans we're feeling the heat!

If you die, reef, what will we eat?

Hey, that goes for us fish too!

Wait, we humans depend on you!

D
To avoid the pain,

We better be humane

A
Protect, protect, protect that Foo..Food Chain!

Speaking lines...

So you're saying if Global Warming grows,

We could all fall like dominoes?

Yes, so stop it, if you want to stay alive!

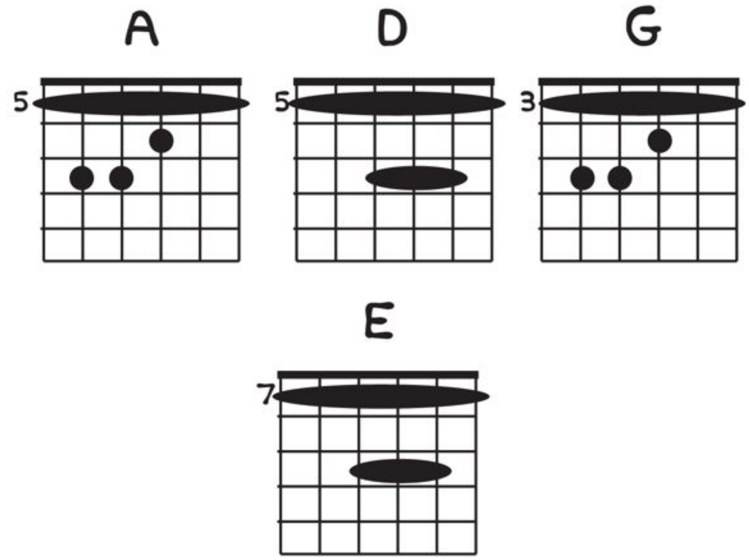
D
Oh I don't buy this! Why?

A E A
'cause rats will always survive!

HIPPO WORKS

Lyrics and Chords

We're Gonna Stop You!
Sung by: The Hippo Works Gang

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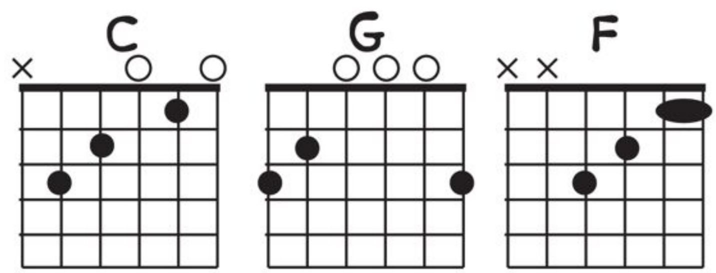
 A                          D        A
We're gonna stop you! Watch and see
                         D    A
You carbon blobs are history

        E
With your Carbon Footprints
D             A
Aren't you scared?
      E
With our friend methane
          D      A          G   A
We now double dare
```

One by One
Sung by: The Hippo Works Gang

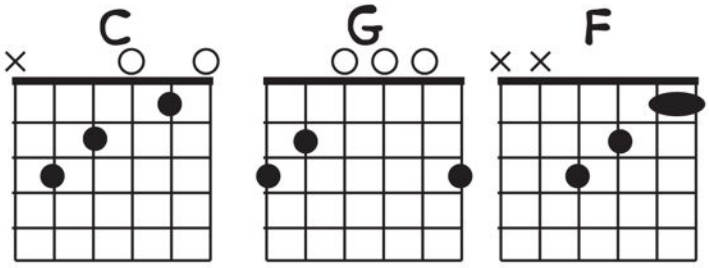



```
C       G    F      C
One by one, ton by ton.
                      G
We can stop the carbon??
F     C
One by one!

      G                  C
With energy saving CFL bulbs!
      G                C
Eight bulbs keeps out a ton...
     G                 C
Of carbon from the air each year
      F               C
 ...so now we subtract 1!?

C       G    F      C
One by one, ton by ton
                       G
We can stop the carbon, and methane!"
F     C
One by one!
```

...continued



C G F C
One by one, ton by ton
G
We can stop the carbon
F C
One by one

Spoken lines...

G C
Reduce, reuse, recycle
G C
We'll save lots of energy
G C
If we buy with energy star
F
It helps us…
C
And saves you money!

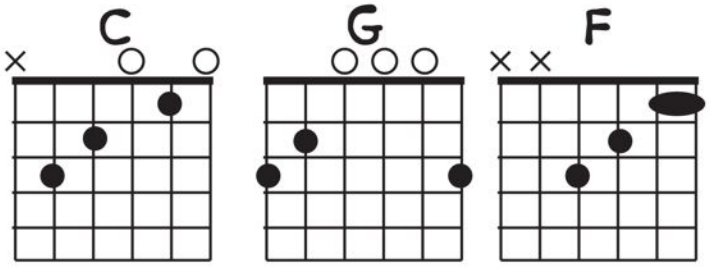
Spoken lines...

C G F C
One by one, ton by ton
G
We're stopping carbon
F C
One by one

G C
Why don't you buy a hybrid car?
Or electric!
G C
Save money, more MPG!
G C
I commute by taking the bus...
F C
I bike and it's carbon-free!

Lyrics and Chords

...continued



C G F C
One by one, ton by ton,
G F C
Don't forget methane everyone

G
So tonight, no meat…
C
Greek salad!

G C
Let's buy what's locally grown
G C
And after dinner we cut methane,
F C
With a compost set up at home.

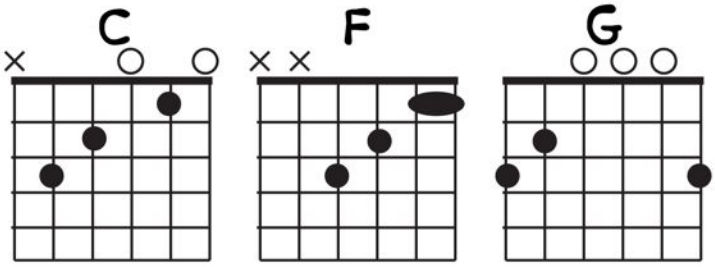
Spoken lines...

C G F C
One by one, ton by ton
G
Let us cut your methane
F C
We'll make it fun!

Spoken lines...

C G
Now we're through
F C
But there's more to do
G
To stop climate change
F C
We need help from you.

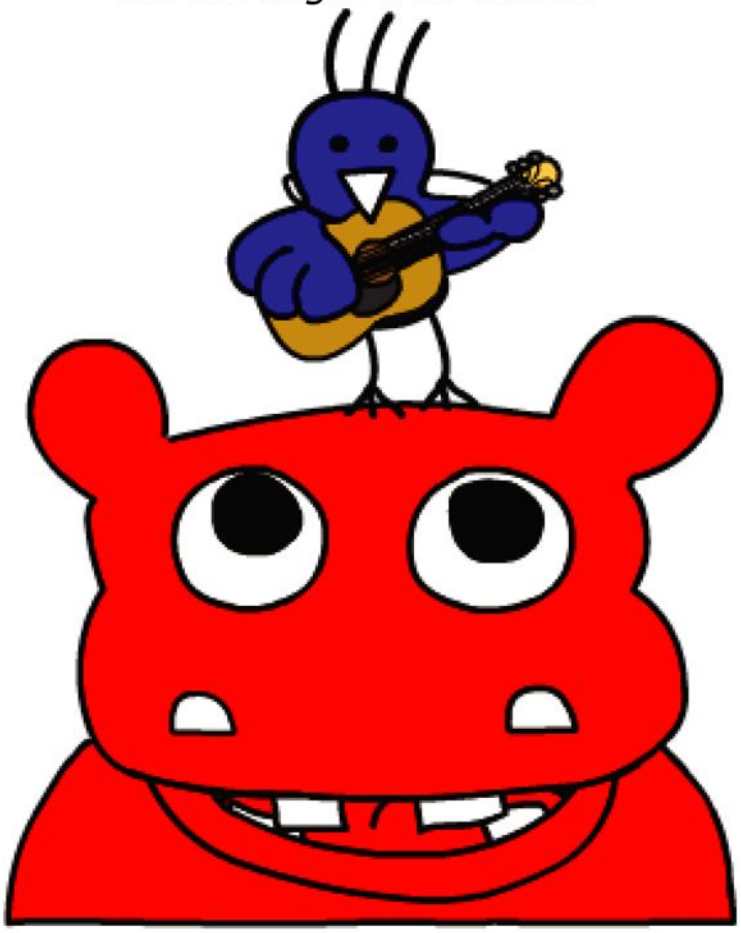
Lyrics and Chords



It's A Jungle Out There!
(featured on hippoworks.com)
Sung by: Peep

C F
It's A Jungle Out There!

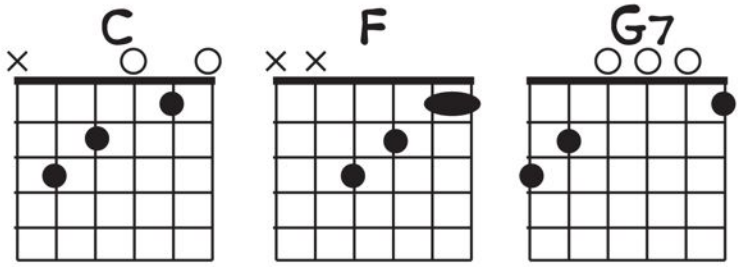
G C
It's A Jungle Out There!



HiPPo WORKS

Lyrics and Chords

On Top Of Our Planet
Sung by: Peep and Suzanne
(featured on hippoworks.com)



C F
On top of our planet
C
Once covered in snow
G7
Now sits a polar bear
C
With nowhere to go

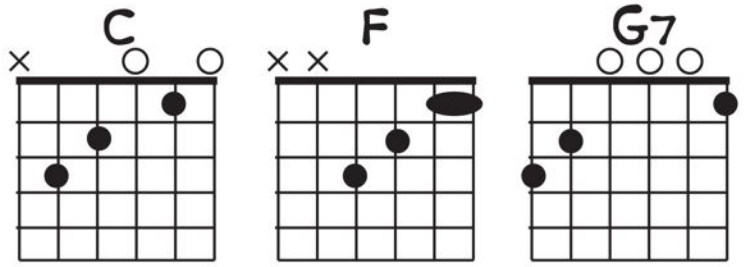
F
While in the Pacific
C
There is a great reef
G7
That is slowly dying
C
We fish are in grief

F
It's called global warming,
C
There's no longer doubt,
G7
It's changing our climate
C
And may snuff us out!

F
Oh, Carbon Dioxide
C
Polluting the air
G7
traps the sun's heat in
C
But let's not despair!

Lyrics and Chords

...continued



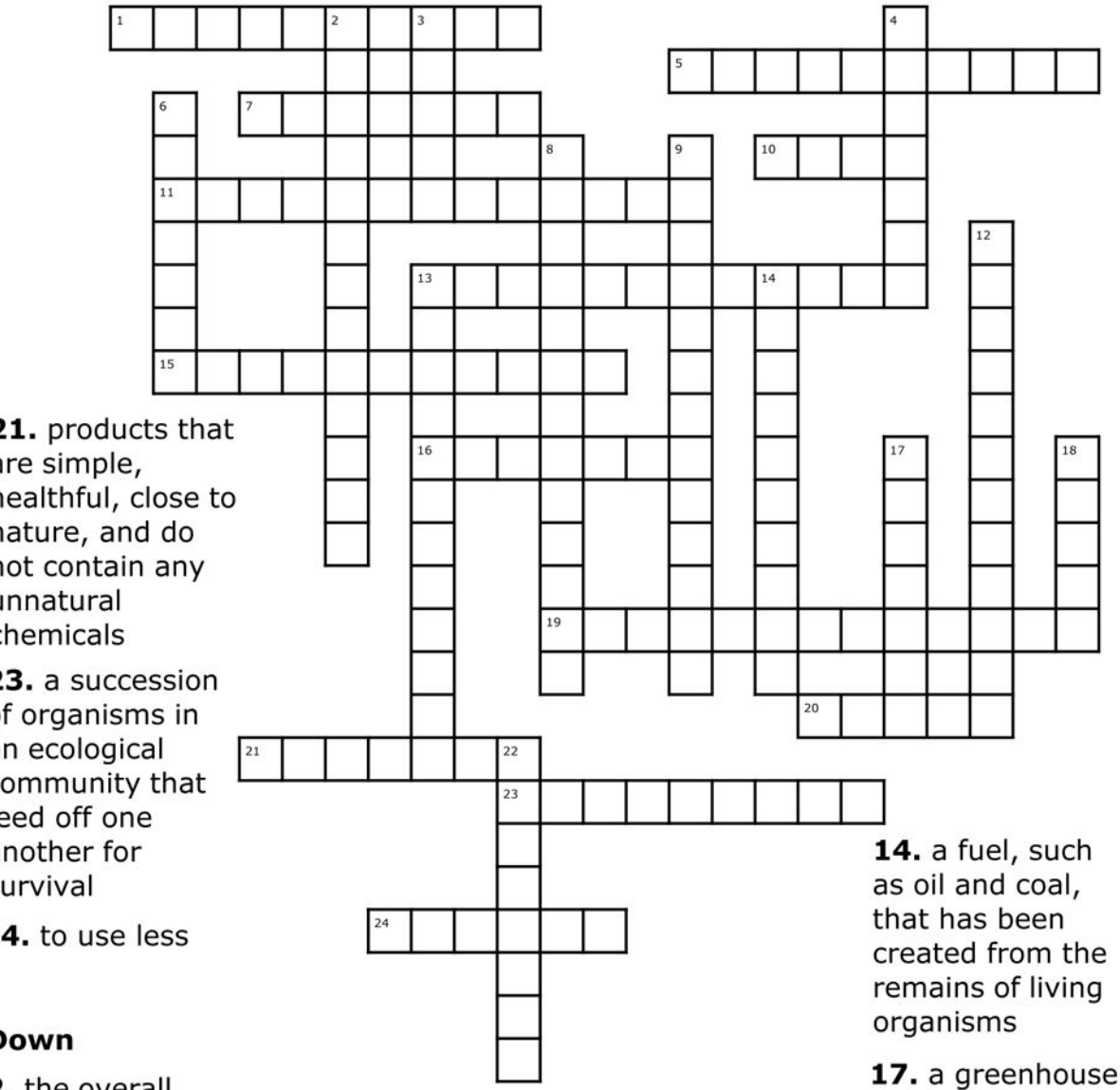
F
You see, we can stop it
C
But does this mean work?
G7
It's our only option,
C
So don't be a jerk!

F
Let's buy CFL bulbs!
C
And green power, too!
G7
Did you know hybrid cars
C
Save money for you!

F
Doing these simple things
C
Will cut back carbon
G7
Calculate your foot print!
C
Reduce it to none!

F
Now take it some action
C
And join the march too!
G7
Tell all your friends as well
C
Our planet needs you!

Simon's Crossword



Across

1. a type of animal or species that may soon become extinct

5. a forest in a tropical region of the world where it rains a lot

7. a fuel made from organic or living matter, such as corn or poop

10. Simon's feathery sidekick

11. the change of the planet's weather patterns over time

13. the balancing out of the carbon dioxide released into the air

15. the social and cultural forces that shape the life of a person or a population

16. what a species or animal is called when it has died out or is dying out

19. the process of removing the trees from an area of land

20. another word used to describe something that is environmentally friendly; it is also a color

21. products that are simple, healthful, close to nature, and do not contain any unnatural chemicals

23. a succession of organisms in an ecological community that feed off one another for survival

24. to use less

Down

2. the overall increase in temperature of the earth

3. to use again

4. fertilizer made from left- over vegetables, fruits, and other plants

6. to convert waste to something reusable

8. a greenhouse gas that is given off when fossil fuels are burned

9. the act of putting new trees into a place where the original trees have been cut down

12. the process of working to protect something valuable so it is not damaged or destroyed

13. the careful use of natural resources in order to prevent their decrease

14. a fuel, such as oil and coal, that has been created from the remains of living organisms

17. a greenhouse gas given off when animals poop, fart, and burp

18. the large, red, friendly creature that informs us about saving our planet

22. compact flourescent light bulbs, which save energy

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Peep's Word Search

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

Biofuel
Carbon Dioxide
Carbon Offset
CFL Bulbs
Climate Change
Compost
Conservation
Deforestation
Endangered
Environment
Extinct
Food Chain
Fossil Fuel
Global Warming
Green
Methane
Organic
Peep
Preservation
Rainforest
Recycle
Reduce
Reforestation
Reuse
Simon

Hippo Works tm

These are the cupcakes from the film!

Suzanne's Organic Apple Banana Cupcakes

Parental Supervision Required!
Kids – do not make this without a parent.

Honey darling, to make my delicious all-natural cupcakes you will need the following ingredients:

Love (always the first ingredient!)
4 very ripe organic bananas
1 organic Granny Smith apple, peeled and chopped into little cubes
2 cups unbleached and sifted cake flour
1 stick unsalted organic butter, room temperature
3/4 cup organic maple syrup
2 large eggs from happy, free range chickens
(separate the yolks and whites please)
1/2 cup Greek organic yogurt
1 teaspoon vanilla extract
1/2 teaspoon cinnamon
1/2 teaspoon baking powder
3/4 teaspoon salt
1/2 teaspoon baking soda

Preheat oven to 400 degrees. Put the 4 bananas on a baking sheet and roast them for about 20 minutes (the peels will get very dark). Remove the bananas from the oven and allow them to cool (or give them a little encouragement by peeling and putting them in a bowl, and then placing in fridge). Meanwhile, lower the oven temperature to 350 degrees.

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Suzanne's Organic Apple Banana Cupcakes
(continued)

Parental Supervision Required!
Kids – do not make this without a parent.

Put paper liners in your muffin tin. Sift together the cake flour, baking soda, baking powder and salt into a large bowl. In the bowl of a standard mixer, set to medium-high speed, and cream together the butter and the maple syrup. If you haven't added any love yet, you better start doing it now. Then add vanilla and then the egg yolks, one at a time, and beat together until each is fully mixed in. Add in the cooled roasted bananas and beat all together to combine. Add one third of the flour mixture and blend, then add half of the Greek yogurt. Repeat adding flour, yogurt, and finishing with the remaining flour.

In another bowl, use the electric mixer set on high speed to whisk the egg whites into soft peaks. Fold 1/3 of the whites into the batter to lighten. Fold in the remaining whites in two batches.

Divide the batter evenly among the paper liners. Bake for about 20 minutes or until done, then cool on wire rack. Makes 16-18 cupcakes.

Delicious, yes?
Enjoy with love from me!

Suzanne

HIPPO WORKS

Simple Ways To Be An Eco Hero

REDUCE:
Reduce usage and waste. For example, when you go to the bathroom, how many sheets of toilet paper do you really need to use?

Avoid making or buying things with excessive packaging: this saves trees from being cut down!

Reduce your energy and water usage. Turn off electronics and lights if they're not necessary.

If something like a toy breaks, see if it can be fixed instead of throwing it away.

REUSE:
Pack your lunch box with reusable containers so your lunch box will be waste-free!

Make a habit of using reusable bags for groceries and other kinds of shopping.

Use things multiple times – with a paper bag you can make a book cover that you can color on.

Share your magazines, books, and newspapers; it will reduce the number of trees being cut down. You can even use old newspaper for packaging!

RECYCLE:
Have a recycling bin at home and school for recycling plastic, cardboard, glass, aluminum, and newspaper. Recycling cuts waste, saves energy, and reduces your Carbon Footprint!

Use products made out of recycled materials and buy rechargeable batteries.

Recycle your old clothes or toys by giving them to a brother, sister, friend, or charity.

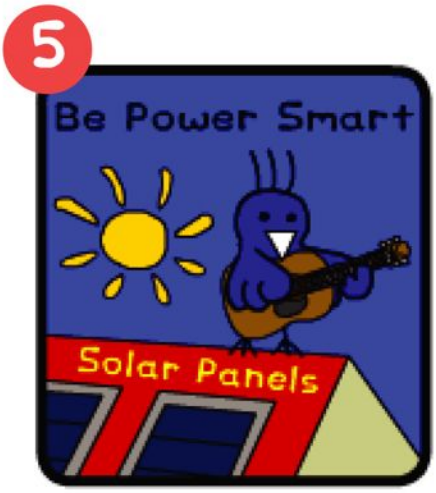
Simple Ways To Be An Eco Hero

USE LESS WATER:
Ask your parents about installing low-flow shower heads and toilets.

Take short showers (five minutes) instead of baths to use less water.

Wash only large loads of laundry and dishes and use cold or warm water instead of hot.

Ask your parents about buying an ENERGY STAR washer, it uses up to 25 gallons less water than other washers.



BE POWER SMART:
Ask your parents about buying other ENERGY STAR appliances (these save lots of energy, money, and reduce up to six tons of carbon in a family's home).

Ask your parents if your house is well-insulated.

Have lights on only when necessary and turn off and unplug electrical devices after using them. Plugged-in items still use energy!

In the summer, try not to use too much air-conditioning.

In the winter, put on a sweater before raising the thermostat. It saves money and reduces your Carbon Footprint!

USE CFL (OR LED BULBS):
Buy Compact Fluorescent or Light-Emitting Diode bulbs instead of regular bulbs. As the spider said in the cartoon, "eight bulbs keep out a ton!"

Use LED Christmas lights instead of regular lights: they use 95% less energy!

HIPPO WORKS

Simple Ways To Be An Eco Hero

DRY CLOTHES IN THE SUN:
Put your washed clothes on a drying rack or line outside. Your clothes will smell fresh - it costs nothing and is carbon-free!

If your family dries clothes outside, it can reduce tons from your Carbon Footprint!

TRAVEL SMARTER:
Walk, bike, take a bus, or carpool to school with friends.

If your family is buying a new car, consider an electric or hybrid with high MPG (Miles Per Gallon).

Remember that public transportation and carpooling reduce your Carbon Footprint compared to riding in a car alone!

EAT LESS MEAT:
Have a veggie burger and perhaps a day every week without meat (find out about the meatless Mondays movement at hippoworks.com).

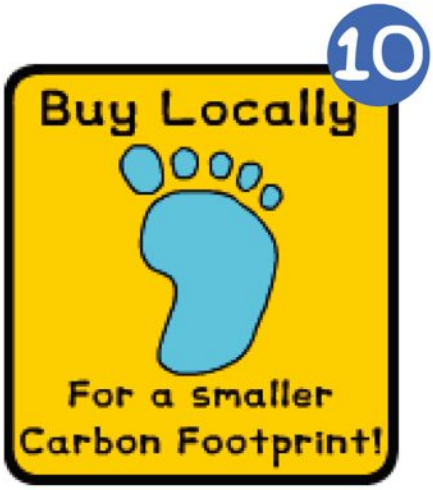
Animal agriculture uses a lot of energy and our natural resources, so a switch to less meat helps lower your Carbon and Methane Footprints.

See how creative and delicious food can be by cooking with just vegetables and non-meat products.

Simple Ways To Be An Eco Hero

BUY LOCALLY:
Buy locally produced products like food at a farmers market. Or buy food at your supermarket that is grown or produced nearest to where you live.

When you buy food locally, there are less "food miles" – a shorter distance for your food to get to your table means a smaller Carbon Footprint!



COMPOST:
Create or get a compost bin for your family's or school's food scraps.

Worms can help the compost break down easier.

You can compost anything biodegradable from egg shells to carrot tops!

GROW A GARDEN:
To eat as locally as possible, grow your own garden with your favorite vegetables, fruits, herbs, and flowers.

Simple Ways To Be An Eco Hero

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PLANT A TREE: it gives back to your planet!
Plant a tree with your family or class. It's lots of fun and a tree can offset up to a ton of carbon in its lifetime.

Trees also provide shade to keep a spot cool near your house or school in the summer.

You can also compost the twigs and leaves that fall off a tree.

If you can't plant a tree, buying Carbon Offsets can help plant trees in places like rainforests!

HAVE A CLIMATE CHANGE BAKE SALE!
Get together with your family, friends, and classmates to cook and sell what you bake! It's great fun and a way to raise money and awareness to help stop Climate Change.

Bake the same cupcakes Suzanne made for her friends in the cartoon's Climate Change Bake Sale (see her recipe on pages 39-40).

Buy Carbon Offsets with the money you've raised to help reduce your Carbon Footprint. We can show you how if you...

14

15

JOIN HIPPO WORKS!
Visit hippoworks.com to join the club and become a friend of Hippo Works!

You can also share news and pictures, like from your Climate Change Bake Sale! Once you've done all you can to help stop Climate Change, we can help you choose where to buy Carbon Offsets to get rid of the rest of your Carbon Footprints.

Let's all take responsibility for helping to stop Climate Change 'cause we're all in this together!

And remember, our little steps make a big difference!

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