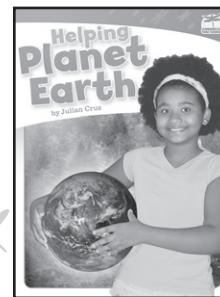


Helping Planet Earth Anchor Books

by Julian Cruz



Anchor books for *Helping Planet Earth* are written at three levels – emergent, early, and fluent – to enable differentiated instruction. Each anchor book has the same images but the text becomes progressively more challenging and appropriate at each level. This allows the students to have access to core information, regardless of their reading level.

Anchor books “front load” the vocabulary and introduce the “big ideas” that are expanded on in the topic books, as seen below.

Big Ideas for <i>Helping Planet Earth</i>	People need to use resources carefully.	People need to care for animals that are in danger.	People need to stop polluting the air.	People need to recycle things instead of throwing them away.
Emergent Topic Books	<i>I Can Save ...</i>	<i>Animals in Danger</i>	<i>Let's Clean Up!</i>	<i>How Can I Use It Again?</i>
Early Topic Books	<i>Every Drop Counts</i>	<i>Meet the Grey Wolf</i>	<i>Car Smart</i>	<i>1, 2, 3 ... Recycle</i>
Fluent Topic Books	<i>Be an Energy Expert</i>	<i>Panda Emergency</i>	<i>The Air I Breathe</i>	<i>Transform It!</i>

Use the *Helping Planet Earth* anchor books to:

- introduce the big ideas and discuss key vocabulary during the whole-class introduction
- take guided reading lessons at three levels – emergent, early, and fluent
- lead into the associated topic books, where students can read more about the big ideas that the anchor books introduce.



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Whole-class Introduction

A whole-class introduction to this anchor book enables all students, regardless of their reading ability, to discuss core content. It allows them to develop an understanding of the big ideas and vocabulary in the unit.

Anchor words

Emergent

again, animals, carefully, clean, danger, Earth, help, planet, use

Early

again, air, animals, carefully, clean, danger, Earth, habitat, help, need, planet, pollution, recycle, resources, rubbish, save, using

Fluent

again, air, animals, breathe, carefully, clean, danger, Earth, endangered, environment, extinct, fumes, habitats, help, landfills, natural resources, need, oil, pollution, population, recycle, rubbish, safe, smoke, water

Introductory activity

- Showing students artefacts related to the topic can help to spark their interest.
- Role-play and discussion prepares students by promoting conversation, questions, and speculation.

Habitat musical chairs

Explain that you are going to play a game called Habitat Damage musical chairs to introduce one of the ideas the students will be reading about. This game demonstrates how the destruction of a habitat can have major consequences. It encourages the students to think about the amount of space animals need and the impact of people on a habitat.

You will need:

- music

- chairs (one less than the number of students)
- a green outline of a tree taped onto the back of each chair.

Arrange the chairs in a circle. The picture on the back of each chair represents trees in the forest. Explain to the students that they are wolves living in a forest. The forest is their habitat. Wolves make dens to keep them safe. Deer also live in the forest. The forest is a good place to live because the wolves have food (deer to hunt), shelter (places to hide and take care of their young), and they can be safe.

However, people are moving into the area. They need to cut down the trees so they have land to grow their crops and raise their animals and wood to build their homes. This will threaten the wolves' habitat. Tell the students (wolves) to walk around the circle. Start the music. When the music stops, they must hide in the forest by sitting on a chair. The wolf that doesn't get a chair dies. Tell the students that people need to clear more land. Remove another tree. Repeat until all the trees are gone and the last wolf dies. There are no safe places to make their dens and no food – the wolves no longer have a home.

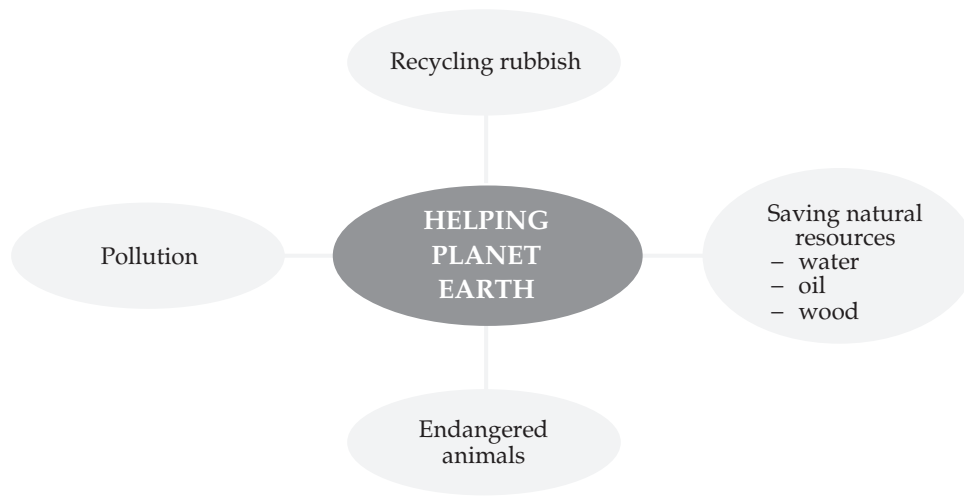
Visual walk-through

Identify which students will be using emergent, early, or fluent anchor books. Hand out the books. Proceed through the books, page by page, with the whole class. At this point, the students will not be reading the text. They will be responding to the same images to develop their vocabulary and to become familiar with the big ideas.

Use the visuals in the anchor books to promote discussion and develop a web of the big ideas.

- Record the students' words, ideas, and questions as they respond to the visual content of the books.
- Take opportunities to discuss and record the **big ideas** and the **anchor words** as they occur.
- Encourage the students to **make connections** with their own knowledge and experiences.





Attributes on the web could be:

Saving natural resources (pages 3, 8, and 9)

Discuss natural resources (water, oil, wood) and why they could run out (more people using them, not replacing them). Revisit this part of the web when you read page 9 of the anchor book. *What can we do to help?*

Endangered animals (pages 4 and 10)

Ask the students what they know about endangered animals. *Why are some animals endangered? What will happen if we don't take care of endangered species? (become extinct) Introduce the concept of "extinction". How can we help animals in danger? (raise awareness, give money to groups who protect these animals) How do you feel about the high numbers of animals in danger?*

Pollution (pages 5, 12, and 13)

Talk about the importance of clean and safe environments for people, animals, and plants. *Where do you think pollution comes from? What can be done about it?*

Recycling (pages 14 and 15)

What is recycling? Why do we need to do it? What will happen if we don't recycle? How can we recycle? Talk about passing old toys and clothes on to other people, Internet auctions, reusing things, recycling plants and landfills. Introduce the idea that "someone's rubbish is someone else's treasure". *How could we make less rubbish? (less packaging, using reusable bags instead of plastic)*

Display the completed chart. This chart can be referred to throughout the unit and reviewed at the conclusion.

Questions

List any questions the students have on a separate chart and return to the list over the following days. Discuss any answers the students have found and add any further questions.

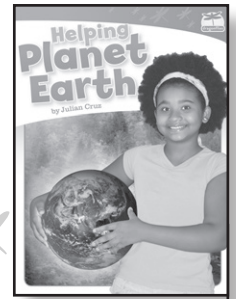
Conclusion

Explain to the students that they will be reading more about helping planet Earth.

- Tell them that they will be:
 - able to add to the charts as they find out more about helping planet Earth
 - working in small groups to read their own book about helping planet Earth.

Helping Planet Earth

by Julian Cruz



Guided Reading Lesson – Fluent

Overview

This lesson builds on the Whole-class Introduction and expands on the Helping Planet Earth unit for fluent readers. It looks at how we can help planet Earth by using resources carefully, caring for animals in danger, keeping it clean, and reusing things.

Content standards

This book supports the following content standard:

- NSS-G.K-12.5 Environment and society

Suggested purposes

This book supports the following **comprehension strategies**:

- making connections between prior knowledge and the text **MC**
- identifying the main ideas **MI**
- asking questions. **AQ**

It supports the following **non-fiction strategies**:

- using photographs to support the meaning of the text
- reading captions.

Key vocabulary

This includes:

- Anchor words – *again, air, animals, breathe, carefully, clean, danger, Earth, endangered, extinct, fumes, habitats, help, landfills, natural resources, need, oil, pollution, population, recycle, rubbish, safe, smoke, water*
- High-frequency words – *about, could, had, into, last, left, live, many, other, some, soon, that, think, work*

Features of the text

- Non-fiction features:
 - introduction of environmental concepts and anchor words associated with the topic
 - general information about environmental issues (pages 2 to 7) followed by four double-page spreads about specific issues and suggested solutions
 - personal statement that ends the book
 - preview question on the back cover
 - photographs with text that supports and illustrates concepts
 - captions
- Word study:
 - initial consonant blends – “pl-”, “cl-”, “tr-”, “gl-”, “sm-”, “br-”
 - digraphs – “th”, “sh”, “wh”

Note: There is a lot of information in this book. You may like to cover it in two or more sessions. The first session could cover pages 2 to 7. You might take up to four sessions to cover the following four double-page spreads before concluding with page 16.



Setting the scene

If you have introduced the unit using the Whole-class Introduction, review the discussion and the charts that you made. If you haven't used this, choose ideas from the introduction and encourage the students to make connections with their knowledge and experiences. Briefly introduce the big ideas, using the associated anchor words. List the anchor words, saying each one aloud, and briefly explain any unfamiliar words.

Have a discussion on helping planet Earth.

- *Why might it need help?*
- *What things might need to be done?*
- *Who can help?*
- *How can we help?*

Write the students' ideas on a web. Leave it up for reference.

ELL support

Understanding root words, prefixes, and suffixes can support ELL students to understand unfamiliar words. It's important to teach them when required and in context.

Introducing the book

Front cover – Read the title. Offer help where necessary. Explain that “planet Earth” includes everything on it – land, water, people, plants, and animals. *What can you see in the photo? Which things could help planet Earth? (person, the trees)*

Back cover – Read aloud the preview question. Discuss the students' predictions.

Title page – *What can you see in the photo? What is being done to help planet Earth? How can people and plants help?*

The first reading

Pages 2 and 3 – Support the reading of “environment” and “natural resources”. *What does “hurting the environment” mean? Look closely at the photos on page 2. (Main idea) What can you see? What kind of help do you think planet Earth needs? (Asking questions) What questions do you have about these photos? Look at page 3. What is happening in this photo? Why can it be harmful to cut down trees? (loss of homes for animals and plants, trees help clean environment)*

Pages 4 and 5 – Support the reading of “endangered”, “habitats”, “destroyed”, and “pollution” if necessary. *What is the dolphin caught in? Why? What is the dolphin's habitat? How is it being destroyed? Look at page 5. Why is the river brown? What kind of help does planet Earth need here? (Asking questions) What questions do you have about these pictures?*

Pages 6 and 7 – Support the reading of “landfills” and “bury”. Look at the photo on page 6. *What is the photo of? (rubbish) (Making connections) What do you know about rubbish? Where does it come from? What happens to rubbish after you throw it away? What does “lend a hand” mean? Why is there a shopping trolley in the water? What will happen to the animals in the water if people keep throwing in rubbish.*

Pages 8 and 9 – Support the reading of “population”. *How does a bigger population affect our resources? Look at the photos. (Main idea) How does switching off lights help our planet? What will happen to our resources if people*

use more than they need? (will run out) What else can we do to save energy? (Making connections) How can people save energy at home? (turn off lights, computers, and TVs; close curtains to keep in heat; turn down heating; use hot water bottles instead of electric blankets)

Pages 10 and 11 – Provide support for reading “extinct”, “habitats”, and “endangered”. *What does the photo on page 10 show? How are the people helping the panda? Why? (Asking questions) What questions do you have about this photo? (Main idea) What is the boy on page 11 doing? Why? How does money help animals in danger? Talk about how money can pay for vets, medicine, research, animal sanctuaries, and so on.*

Pages 12 and 13 – Support the reading of “factories” and “fumes”. *What kinds of things are made in factories? (Making connections) Why is the sky in the photo so grey? (smog) Where does the smog come from? Why is it bad? How does riding a bike help planet Earth? What other ways can you travel to help keep planet Earth clean? (using public transport, walking, riding a scooter)*

Pages 14 and 15 – (Main idea) Support the reading of “landfills” and “recycle”. *What word means to use things again and again? (recycle) (Making connections) How can you recycle? Do you use bottles and jars again? Plastic bags? What do you use them for? How does that help planet Earth?*

MI **Page 16 – (Main idea)** *What have you learned about helping planet Earth? (Making connections)* *What things are you going to do to help Earth? How? How else can you help? (tell other people about how they can help)*

Vocabulary activity

Focus word: smoke

1. Turn to page 12. Read: *There is smoke in the air from factories.*
2. Say “smoke” with me.
3. Tell the students that, in this book, smoke is the grey clouds or smog that hangs in the air when something has been burning.
4. Give examples of how smoke can be used.
 - *Smoke goes up a chimney.*
 - *The wind blew the smoke from our campfire towards us. It hurt our eyes.*
 - *What a lot of smoke from your birthday candles.*
5. Ask the students the following questions:
 - *What does a smoke alarm do? Why do we need them?*
 - *Why is it bad for your health to breathe smoke from factories?*
 - *When a fire burns, where does the smoke go? (it rises)*
 - *What would you do if your house caught fire and there was lots of smoke? (crawl out of the house because smoke rises)*
6. *What is the word we’ve been learning that is the grey clouds or smog that hangs in the air when something has been burning? Say it with me.*

ELL activity

Language objective: Word study – prefixes

- Read page 4 together. *Let’s reread the first sentence together. Many animals are endangered. Say “endangered” together.*
- Write “endangered” on the board. *Do you see a word you know in this word? Underline “danger”. Ask the students to read “danger”.*
- Look at what’s at the beginning of “endangered”. Circle “en”.
- Explain that this part of the word is called a prefix. *The “en” prefix means “put into” or “make”. So “endangered” means “put into danger.” Let’s say that together. Put into danger.*
- Model another example of a word with the prefix “en.” Write “enlarge” on the board. Ask a student to underline the prefix. Ask another student to underline the rest of the word. Draw the students’ attention to the root word “large.”

- *If we know that the prefix “en” means “make”, then what does “enlarge” mean? (to make large, to make bigger)*
- *Today we talked about the prefix “en”. What does it mean?*

Ideas for revisiting the text

1. Review and check

- Listen as the students reread the text, observing their fluency and expression.
- Review the concepts and vocabulary, identifying any that may need further discussion or explanation.

2. Stop and learn

a. Decoding/word attack activities

Decoding multisyllabic words

Write the following words on the board:

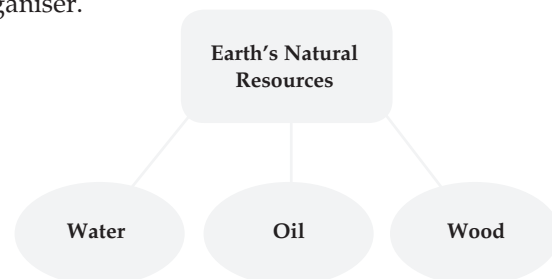
endangered, destroyed, habitats, cities, landfill, buried, earth, resources, water, pollution, factories, fumes. Say each word aloud. Clap the syllables and notice where the syllables break. Support the pronunciation and meaning where needed.

BLM – Identifying syllables

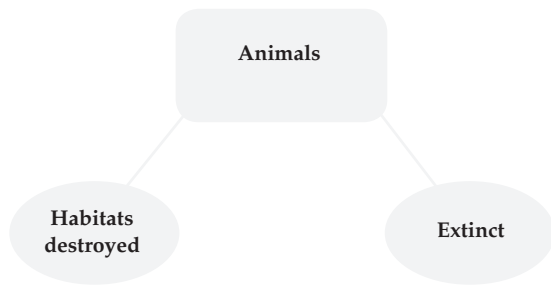
The students can read the word in the boxes. They can say the word and count the number of syllables. They can write the number of syllables next to each word. They can then draw a picture in each box to show how we are harming planet Earth.

b. Comprehension activity

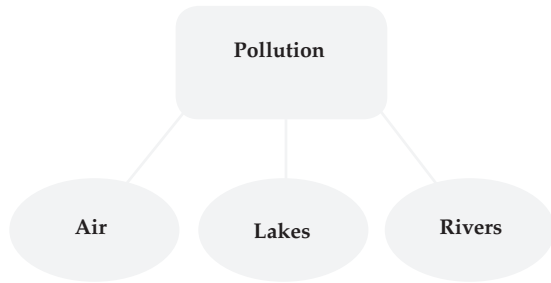
Review the main ideas in the book using a graphic organiser.



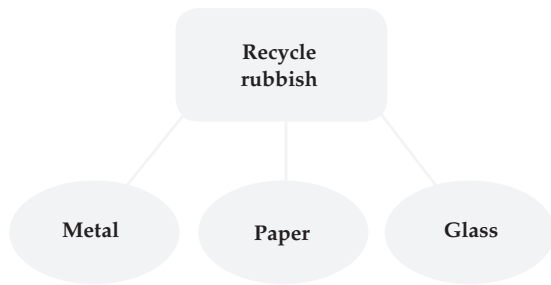
Main idea: We need to use these resources carefully so they don’t run out.



Main idea: We need to care for animals' habitats so they don't become extinct.



Main idea: Animals, plants, and people need clean air and water to live.



Main idea: Many things we throw away can be used again.

BLM – Reading and completing sentences

The students can look at the pictures and complete the sentences. They can then write a sentence to describe the main idea.

c. Writing activity

Have the students:

- Talk about the net on page 4. Explain that fishers put a net across a large section of the ocean and slowly pull it in to catch a lot of fish. It also catches dolphins, turtles, and other sea animals. This is called drift-net fishing. The students can write a letter to a newspaper about stopping drift-net fishing.
- Make a poster that encourages people to ride a bike instead of riding in a car.

3. Suggestions for further activities

- Research an endangered animal using the school library and the Internet.
- Make puppets and role-play an aspect of the text that interests them.
- Organise a clean-up day for their neighbourhood, beach, or playground.

Connecting with the topic books

The big ideas and anchor words in the anchor book are repeated and expanded on in the topic books. Select from these fluent books from the environment unit to use in further guided reading lessons – *Be an Energy Expert*, *Panda Emergency*, *The Air I Breathe* and *Transform It!*

Unit Activities

These activities can be started after the introduction of the anchor book and throughout the reading of the topic books.

1. Learning centre

Include materials and activities so the students can actively build their understandings of the big ideas.

For example:

- Create electricity with circuits and batteries.
- Create a habitat for a mouse or another small animal that the students can observe.
- Start a classroom library of books about animals in danger, pollution, natural resources, recycling, and so on.

2. Writing activities

The students can write:

- Instant poems:
Line 1 – noun *air*
Line 2 – two describing words..... *smoky, dark*
Line 3 – action words *coughing, choking, protecting*
Line 4 – a thought or phrase about the noun .. *need to do something*
Last word – another name for the first word *pollution*
- List poems, for example, for recycle – using a new idea for each line
I will _____
I will _____
I will _____
- Topic poems, for example, pollution
Line 1 – title *Pollution*
Line 2 – describe where it occurs *in the cities*
Line 3 – what it looks like *like a dark shadow*
Line 4 – what it does *makes my world blurry*

Three-line poems
Line 1 – subject *turtle*
Line 2 – location *at the beach*
Line 3 – action *running to safety*
- I love poems
Line 1 – I love _____ *I love the forest*
Line 2 – start with “for” or “because” *for the tall trees*
Line 3 – start with “when” *when I go hiking*

3. Endangered animals

Play the game “Poor Panda!” This game is similar to the Rock-paper-scissors game.

You will need: a large open space outside or in the gym

Decide on actions to represent: the habitat – make arms into a circle; food (bamboo) – an action of stuffing bamboo into their mouths; and water – holding head back and tipping a cup to mouth. Call out “water” and have the students practise the action. Repeat for habitat and food. Practise until the students can do the actions easily.

- Choose two people to be pandas living in a bamboo forest.
- The rest of the group will be the habitat, food, and water.
- Form two lines facing each other, the pandas in one line and the habitat, food, and water in the other line.
- Ask the two lines to turn around so their backs are facing one another. The teacher will say “habitat, water, and food”. The students turn around at the same time doing one of the actions.
- The pandas each choose someone who has made the same sign to join their line (two water signs mean the pandas need for water has been met).
- The panda line grows until there isn’t much food, water, or habitat left. Then, for example, the last two students with habitat go over to join the pandas. The other pandas that weren’t able to be matched with that sign die because there is no habitat left. They leave the game (the same happens for the water and food).
- Continue the game until there are no more pandas left.

4. Pollution

The students could create a game about pollution. It could be a “snakes and ladders” kind of game or a “you cleaned up the local beach, go forward two spaces” or “you left a plastic bag in the playground, miss a turn” kind of game. They will need to decorate it, make counters, and write some rules.

5. How do I get to ...?

Spend half an hour in the classroom without using any electricity. It could be a positive experience where the students feel like they are doing their bit to save energy, or it could be used as a warning that if we don't save energy now there won't be any left for future generations. You can discuss the pros and cons of a world without electricity.

6. Art activities

Junk construction – set up a table with egg cartons, empty cereal boxes, plastic bottles, pieces of fabric, wool, and other unwanted bits and pieces. Provide glue, scissors, paints, markers, and glitter and encourage the students to turn old things into new things.

Making egg carton animals

You will need: egg cartons, pipe cleaners, scissors, paint, paste, corks

Caterpillar

1. Separate four to six cups from an egg carton.
2. Ask an adult to make two small holes at one end for the antennae.
3. Insert pipe cleaners for the antennae.
4. Add eyes and a mouth, then decorate.

Ladybird

1. Separate one cup from an egg carton.
2. Using markers or tempera paint, the students can paint the cup red. Using black paint, they can paint the head and paint spots on the body.
3. Ask an adult to make six small holes (three on each side) at the base of the cup to make the legs. Make two small holes at the top of the head for the antennae.
4. Insert a black pipe cleaner into each side hole for the legs. Use half a pipe cleaner for the antennae.
5. Glue on googly eyes or paint on white eyes.

Spider

1. Separate one cup from an egg carton.
2. Ask an adult to make eight small holes (four on each side) at the base of the cup.
3. Insert a pipe cleaner into each hole to make the legs.
4. Draw a face and decorate the body.

Camel

1. Separate two cups from an egg carton.
2. Ask an adult to make holes at the base of the cups for four legs and holes at each end for the neck and tail. Make one small hole in the wide flat end of a cork (the head).
3. Insert pipe cleaners into the holes for the legs and tail.
4. Insert one end of a pipe cleaner into the cork; insert the other end into the hole in the egg cups.
5. Add eyes and a mouth, then decorate.

Bat

1. Separate three cups from an egg carton.
2. Cut out part of the bottom of two cups to resemble bat wings.
3. Glue these to the other cup (the body). Add eyes and a mouth, then decorate.
4. Hang from a string or a rubber band.