



April Emblem of the Month



ECOLOGY

This packet belongs to:

**MOONBEAMS: TREES/ SUNBEAMS: ECOLOGY/
EXPLORERS: ECOLOGY/ RANGERS: ECOLOGY
GIRL GUARDS: ECOLOGY**

Getting Started



Complete this packet throughout the month of April.

Moonbeams (PreK & Kindergarten) - Complete Activities 1-3

Sunbeams & Explorers (grades 1-5) - Complete Activities 1-4

Girl Guards & Rangers (grades 6-12) - Complete Activities 1-6

Ecology is the study of the relationships between organisms and what surrounds them. People, plants, and animals depend on each other for survival. And it is everyone's responsibility to understand and protect the environment.

Bible Study

Let's make a list of all the things that belong to God. Can you list 10 things? Can you think of more than 20? Does your list include everything that belongs to God?

Look up Psalm 24:1 (NIV) and fill in the blanks below:

"The _____ is the _____, and

_____ in it, the _____,

and _____ who live in it."

We are told that we should be good stewards of the world around us, the world that God created. This means we should look after it and take care of it. We should do our best to keep things in order.

Ask yourself, "Do I do my best to take care of God's creation each day?"

What can I do to make a difference where I live?"

Activity 1



Activity 1

Ecology is the study of living things and the environment that they live.

Habitats are the natural home for a plant, animal, or organism. Take a moment to think about your home - your habitat

Moonbeams (PreK & Kindergarten) - Draw a picture of your home in the box below.

Sunbeams & Explorers (grades 1-5) - Draw a picture of your home in the box below and complete the habitat worksheet on the next page.

Girl Guards & Rangers (grades 6-12) - Complete the habitat worksheet and use the box below to list other animals that live in the different habitats.

Match the Animal to its Habitat

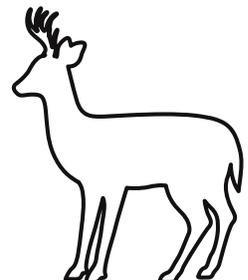
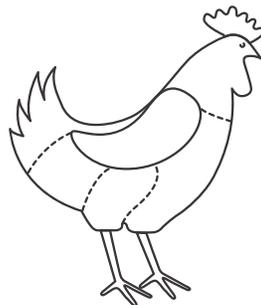
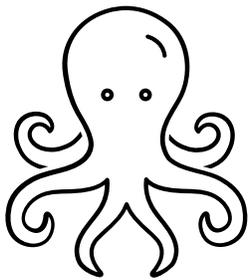
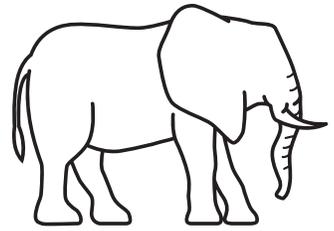
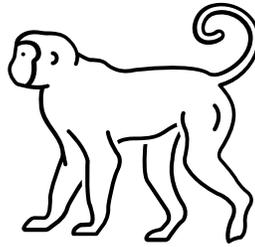
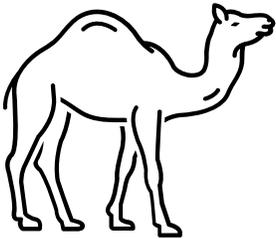
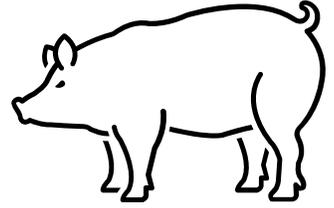
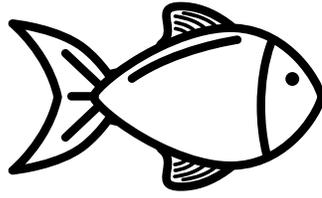
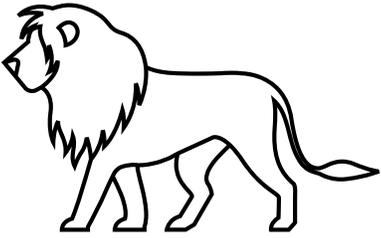
Sea

Forest

Farm

Jungle

Desert



Activity 1

Activity 2



Activity 2

It is our job to take care of the world we live in. There are things we can do to help. The 5 Rs of Ecology will help us remember what we can do to make a difference.

Discuss the 5 Rs with your troop

(or watch this video on the 3 main Rs https://www.youtube.com/watch?v=OasbYWF4_S8&t=53s)

Then use the lines below next to each word to write ways that you can do each one of these things in your home, at school or at church!

Moonbeams can choose to color the next page as a poster reminder about the 3 Rs of Ecology

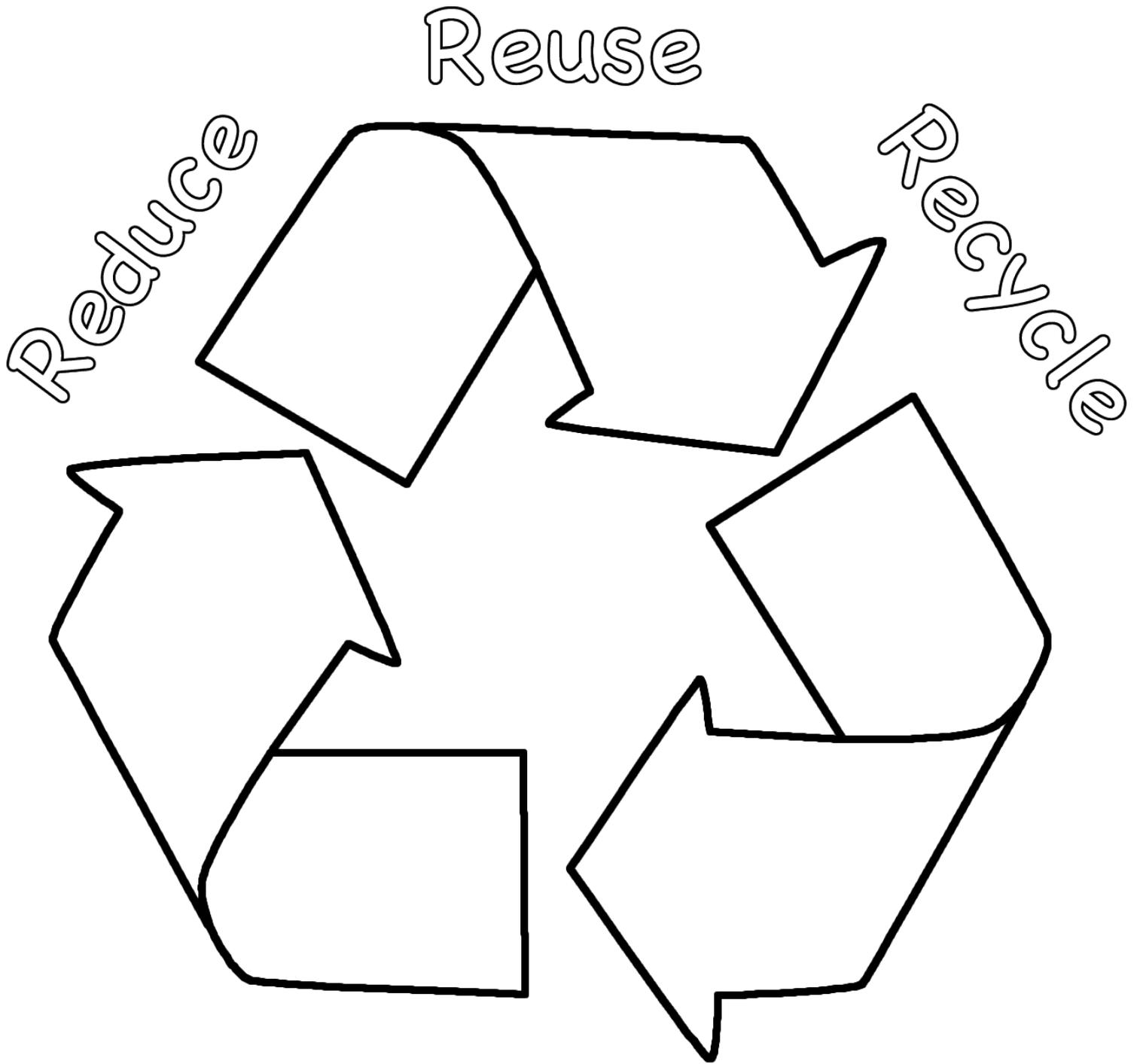
REDUCE: Decide not to use single use items like plastic bags or straws that will just get thrown away.

REUSE: Use containers, bottles, and other materials again that you usually would throw away.

RECYCLE: Sort your garbage. Take glass, metal, plastics, and paper to the recycling center.

RENEW: Make your world greener. Plant a tree, flower, bush, or other greenery.

REDO: Make something run down and broken into something fresh and clean.



Activity 2

Activity 3



Activity 3

We must make careful choices that protect our environment so that every part works together in harmony with all the other parts. Environmental harmony is how everything works together to sustain life. Some examples are:

- The four seasons encourage a harmonious change in cycles
- Bees pollinating flowers, each depends on the other for survival
- Exchange of oxygen and carbon dioxide between plants and humans
- Symmetry in nature providing balance - even on humans we have 2 eyes, 2 arms, 2 legs, 2 ears, etc.

Take a hike around your own neighborhood, community, or camp to look for signs of environmental harmony. Think of things that you can do to help make your area into a healthier and better place to live.

What did you find interesting on your hike?

What examples of environmental harmony did you see on your hike?

What are ways that you can help support harmony in the world around us?

Activity 3 & 4



Activity 3

Choose an activity to complete activity 3:

- Make a terrarium in a glass jar to show how organisms work together. Go to www.rachaelraymag.com/fun-how-to/getreal-guide/how-to-make-your-own-terrarium to read about one way you can do this.
- Make a video or photo journal about things in the environment that represent harmony.
- Try your hand at recycling by making your own paper. You can find instructions here <https://www.pbs.org/parents/crafts-and-experiments/make-your-own-paper>. We can help keep environmental harmony by living sustainably.
- Use recycled materials to make a craft project. Or repurpose/reuse old things that you would normally throw out to upcycle it into something new.

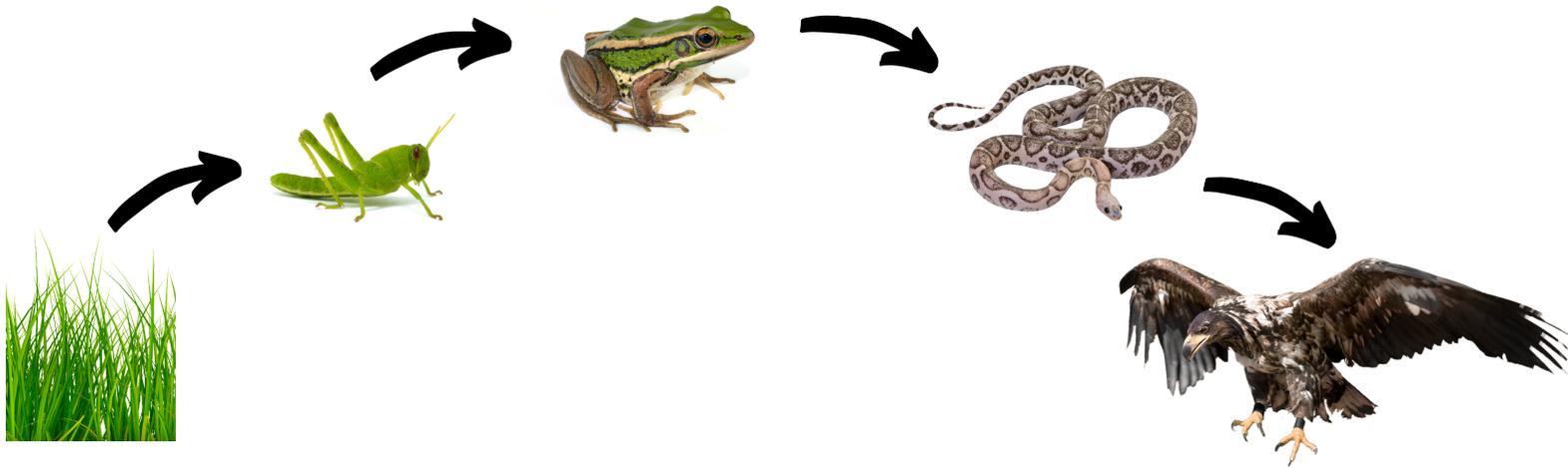
Activity 4

Ecologists also study the interactions between plants and animals and how life flows through them. One way to show these interactions is to make a food chain. Look at the food chain on the next page to answer the questions..

You should know these two words when thinking about a food chain:

Predator — An animal that lives by killing and eating another organism.

Prey — An animal or organism that is hunted.



What would happen if a company came into this area, and sprayed to kill all of the grasshoppers living there?

If the eagles all leave the area to live somewhere else, what would happen to the snake population?

A new highway is being built through the area, and the meadow is cut in half by a huge road. A lot of the grass is gone, and the pond is separated from the meadow on the other side of the street. What effects do you think this would have on the grasshoppers, frogs, snakes, and eagles?

Someone leaves garbage by the water, and it poisons the pond where the frog lives. Most of the frogs die. How does that affect the rest of the chain?



Activity 4

Activity 5



There is another R besides *Reduce, Reuse and Recycle*, wise consumers know that it is important to REVIEW the ingredients in our toiletries and beauty products.

Do you know what is in the products you use everyday, or how those products affect you and the environment? Task Complete the following task. Researcher David Suzuki has identified a “Dirty Dozen” list of ingredients many products contain that are not so good.

Review your own products to learn what is in them and the harm those ingredients can cause. For this task do each of the following:

First: Know what to look for.

Download a free copy of What’s Inside? That Counts. at: www.davidsuzuki.org/publications/downloads/2010/whats-inside-shoppers-guide.pdf. Read the guide to learn about the effects of the “Dirty Dozen.”

Second: Take a look at the ingredients on your favorite products/toiletries

Circle the ingredients found in your products

BHA / BHT

Coal Tar Dyes

Cyclomethicone / Siloxanes

DEA / MEA / TEA

Dibutyl Phthalate

Formaldehyde-Releasing

Preservatives

Parabens

Parfum

PEG

Petrolatum

Sodium Laureth Sulfate (SLES)

Sodium Lauryl Sulfate (SLS)

Triclosan

**Which is the most
common ingredient(s)
from the list that you
found in your products?**

Activity 5 & 6



Activity 5 continued

Third: Make a plan of action based on what you find.

**What are the possible dangers listed for the common ingredients?
Do the possible dangers listed concern you? Why or why not?**

What do you think is the biggest problem based on your discovery?

What can you do about the problem? How can you put your plan into action?

Activity 6

Environmental change can affect ecosystems and human health. Choose one of the following topics and find out how it impacts your health. Let others know about the danger by designing an infographic or poster, writing a song, or making a video about the subject.

- Global warming
- Population growth
- Air pollution