



Learn at Home

Grade 1 - Science



Unit Overview

This series of online activities packet of resources is designed for students and their parents who wish to support in-school learning with activities that can be done independently and/or with a partner at home. The packet includes ten activities that support the major scientific work of the 1st Grade with a particular focus on science content. These activities should each take 30-40 minutes (although some can be extended) and may be completed in any order.

How to use this guide

For each activity, you will find:

- A description and/or instructions for the activity
- Information about both content and practice that the activity supports
- One or more focus or discussion questions that will help deepen the learning of the activity

Day 1 Science

Activity: Christmas Island – Eating Habits of Animals

Task

You will learn about what animals eat. You will also recognize that different animals eat different foods. Some animals eat meat. They are called carnivores. Some animals eat only plants and are called herbivores. Some animals eat both plants and animals. They are called omnivores. Learn more about what animals eat.

At the end of the activity, you should be able to:

- Identify the eating habits of animals
- Recognize the different animals that eat different foods
- Difference between herbivore, carnivore and omnivore animals

Link: <https://en.e-learningforkids.org/science/lesson/christmas-island-what-do-animals-eat/>

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- Habitat – the environment on which an animal or plant normally lives or grows
- Carnivores – organisms that eats animals
- Herbivores- organisms that eat plants
- Omnivores- organisms that eats both plants and animals
- Organisms – a living thing

Click on Exercise 1 – Herbivorous animals

- Click on the animal that eats plants only.

Click on Exercise 2 – Eating Habits

- Select what kind of eaters these animals are by matching the animal to the correct eating habit.

Click on Exercise 3 – Omnivorous Animals

- Which animals eat both plants and meat? Help find them by clicking on the boxes for the omnivore animals.

Click on Exercise 4 – What animals eat?

- Drag each animal to what they eat.

Day 2 Science

Activity: Rio de Janeiro – Baby Animals

Task

Join Emma and the children's carnival parade. Visit the zoo and have a good look at baby animals.

At the end of the activity, you should be able to:

- Recognize that animals have different ways of reproducing
- Recognize which animals belongs to which animal
- Recognize which animals like to eat meat and which animals like to eat plants
- Recognize which house belongs to which animal

Link: Click on <https://en.e-learningforkids.org/science/lesson/rio-de-janeiro-baby-animals/>

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- Life Cycle – series of stages a living organism goes through as it grows, develops, and matures.
- Habitat – the environment on which an animal or plant normally lives or grows.
- Carnivores – organisms that eats animals.
- Herbivores- organisms that eat plants.

Click on Exercise 1: Giving birth or laying eggs

- Many birds have laid eggs. There are many pictures and two boxes: one for animals that lay eggs, and one for animals that gave birth. Drag the picture to the right box.

Click on Exercise 2: The right baby

- The carnival parade is passing the animal nursery. All the babies are mixed up! Give the animal mothers back their babies by clicking on the baby animal.

Click on Exercise 3: Which animal eats meat?

- Time to feed the animal. Drag the food to the right animal.

Click on Exercise 4: Animal Houses

- The animals need to sleep. Find the right home for each animal by clicking on the home where the animal lives.

Day 3 Science

Activity: South Africa – Kaap de Goede Hoop

Task

Mamello is a Park Ranger near the Kaap de Goede Hoop. Kaap de Goede Hoop lies in South Africa and it's famous because people passed it when they travel between Europe and Asia by a boat. Mamello works in a park. There are many animals in this park. One of his jobs is to photograph animals and then sort them. Can you help Mamello recognize the similarities and differences between the photos of the animals?

At the end of the activity, you should be able to:

- Compare and sort animals based on their characteristics
- Recognize the similarities and differences between animals
- Compare the features of sea animals

Link: Click on <https://en.e-learningforkids.org/science/lesson/south-africa-kaap-de-goede-hoop/>

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- Animal – Any of a kingdom of living things including many-celled organisms and often many of the single-celled ones that typically differ from plants.
- Characteristics - Distinguishing trait, quality or property. Hair color, eye color, and height are examples of characteristics.
- Similar – Having characteristics in common.

Click on Exercise 1: Animal Appearances

Mamello took photos of animals and wants to classify them. Can you help find the correct answers in each question?

- Select the animals that have spots.
- Select the animals that have horns.

- Select the animals that have spots.
- Select the animals that have fur.
- Select the animals that have four legs.

Click on Exercise 2: Are they similar?

Mamello got a lot of sorting to do. He would like to start with comparing the armadillo spiny-tailed lizard and the bateuler eagle. Save him some time.

- Click on the check icon if these animals have tails, if not click on the X icon.
- Click on the check icon if both animals have wings, if not click on the X icon.
- Click on the check icon if both animals have scaled skin, if not click on the X icon.
- Click on the check icon if both animals have eyes, if not click on the X icon.
- Click on the check icon if both animals walk on four legs, if not click on the X icon.

Click on Exercise 3: What is the difference?

Different animals can be the same in a lot of ways. Mamello is now curious about the differences. Help him spot the differences between the following animals.

- What is the difference between a lion and a cheetah? Click on the correct statement.
- What is the difference between a baboon and a rhinoceros? Click on the correct statement.
- What is the difference between a roller bird and an ostrich? Click on the correct statement.
- What is the difference between a buffalo and an elephant? Click on the correct statement.

Click on Exercise 4: Different or the same?

Mamello is going to scuba dive to take a closer look at the animals that live in water. Some animals really look alike. Tell Mamello if he sees the same animal twice or if he sees two different animals.

- Click on the check icon if the animals are the same, if they are not the same click on the X.
- Click on the check icon if these two animals are different.
- Click on the check icon if these two animals are the same.
- Click on the check icon if these two animals are different.

- Click on the check icon if these two animals are different.

Click on Exercise 5: Sort the animals

Mamello has a long day. He has only one thing left to do. He needs to sort these photographs. Can you help him drag the photos to the correct place?

- Observe the photos of the animals. Drag all one color animal in the drop area. Drag all multi-colored animal in the drop area.
- Observe the photos of the animals. Drag the furry animal in the drop area. Drag the feathered animal in the drop area. Drag the scaled animal in the drop area.
- Observe the four legs and two leg animals. Place the animals that have two legs in the drop area. Place the four leg animal in the drop area.
- Observe the photos of the animals that swim or walk. Drag all the animals that swim in the drop area. Drag all the animals that walk in the drop area.

Day 4 Science

Activity: The Four Seasons

Task

Discover the seasons together with the ancient Greek philosopher Plato. You will learn that seasons can be different in the different parts of the world.

At the end of the activity, you should be able to:

- Recognize that seasons are not the same all over the world.
- Match the four seasons to the corresponding months in the year, in the Northern Hemisphere.
- Understand the seasons are in the desert and tropical forests.
- Identify when seasons start in the southern hemisphere.

Link: Click on <https://en.e-learningforkids.org/science/lesson/atlantis-the-four-seasons/>

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- Seasons** – winter, spring, summer, fall; there are four seasons in one year
- Desert** – dry, sandy land with few plants and little rainfall
- Mediterranean** – the largest inland sea, between Europe and Africa and Asia
- North Pole** – the northernmost point of the Earth's axis
- Southern Hemisphere** – the hemisphere to the south of the equator
- Northern Hemisphere** – the hemisphere that is to the north of the equator

Click on Exercise 1 – Seasons in the Mediterranean

- How do the four seasons look in the Mediterranean?

Click on Exercise 2 – Months in a Season

- Which month belongs to which season in the Mediterranean?

Click on Exercise 3 – Seasons in the North Pole

- Find out how the seasons are in the arctic?

Click on Exercise 4 – Seasons in the desert and tropic

- Maybe the empire of Atlantis even extended to Africa, to the Sahara Desert and tropical forests. Learn about the different seasons in the desert and tropical forests.

Click on Exercise 5 – Seasons in Australia

In Australia and the south of the world, there are four seasons, but they are at opposite times in the year. When winter begins in the Mediterranean, summer begins in Australia! Can you help them understand seasons are not the same all over the world?

Day 5 Science

Activity: Greece – Land, Water & Air

Task

Dionysus is a Greek God, and a theater director. A man of many talents. Can you help him prepare for a play?

At the end of the activity, you should be able to:

- Identify the different materials the earth is consists of.
- Recognize the places where animals live.

Link: Click on <https://en.e-learningforkids.org/science/lesson/greece-land-water-air/>

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- Habitat – the environment on which an animal or plant normally lives or grows.
- Animals - any of a kingdom of living things including many-celled organisms and often many of the single-celled ones that typically differ from plants.
- Environment - the things, both living and nonliving, that surround a living thing.
- Land - Solid part of the surface of the earth.
- Earth - Areas of land as distinguished from sea and air.

Dionysus is working on a play about the earth, and what it is made of. His actors are helping him with many things, like painting and sets for this play! Dionysus will teach them some things about the earth. Please join him.

Click on Exercise 1: What is the earth made of?

Take a look at the earth. Dionysus would like to do a little test to find out how much you already know about the earth.

- Click the check icon if the sky is full of clouds in the photo. If not, click on the X icon.
- Click the check icon if the water is a great place for use to build our houses. If not, click on the X icon.
- Click the check icon if the land is the place where we build our houses and cities.

If not, click on the X icon.

- Click the check icon if you can see the sky in the middle of the ocean, If not, click on the X icon.
- Click the check icon if the earth is covered with only water. If not, click on the X icon.

Click on Exercise 2: What makes up the Earth?

The actors are painting backgrounds to match the earth around Greece. Can you help them by deciding which background they need to use?

- Which of the three images is a picture of land?
- Which of the three images is a picture of water?
- Which of the three images is a picture of the sky?
- Which of the three images is a picture of water?
- Which of the three images is a picture of the sky?
- Which of the three images is a picture of land?

Click on Exercise 3: Elements of land and water

It looks like the actors need to figure out what elements belong to land, and what elements belong to water! Let's help Dionysus out.

- Where does a river belong to? Click on Land or Water
- Where does hills belong to? Click on Land or Water
- Where does sand belong to? Click on Land or Water
- Where do mountains belong to? Click on Land or Water
- Where does a lake belong to? Click on Land or Water

Click on Exercise 4: What animals use land, water, and air?

Now let's figure out what parts of Earth animals like to roam.

- Tell Dionysus where the animals displayed live by dragging the pictures of the animal to the drop area.
- Tell Dionysus where the animals displayed live by dragging the pictures of the animal to the drop area.
- Tell Dionysus where the animals displayed live by dragging the pictures of the animal to the drop area.
- Tell Dionysus where the animals displayed live by dragging the pictures of the animal to the drop area.

Day 6 Science

Activity: Antarctica - Sounds

Task

Paul is a researcher on Antarctica. The topic of his research is sounds. Identify which objects make sound, and learn to recognize different sounds.

At the end of the activity, you should be able to:

- Identify which objects make sound;
- Match sounds to the correct objects;
- Know the difference between sounds of danger and pleasant sounds.

Link: Click on <https://en.e-learningforkids.org/science/lesson/antartica-sounds/>

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

Sound – anything that people or animals hear with their ears.

Click on Exercise 1 – Sound or silent?

Find out which things can make sounds and which can't. Can you help? If you're sure something can make a sound, click the box below the picture.

Click on Exercise 2 – What makes which sounds?

You can often recognize something by the sound it makes. For example, if you hear a bark, you will know it was made by a dog. Think about sounds you hear every day and where those sounds come from. Listen to the sound clip. What do you hear? Click on the correct picture.

Click on Exercise 3 – Danger sounds

This part of the research is about recognizing danger. Sounds can warn you if there's a dangerous situation going on! Can you guess what the following sounds are for? Read the questions and click on the correct picture.

Click on Exercise 4 – Communication sounds

Find out why sounds are useful in communication between people. Can you help decide how we use sounds in our everyday communication? Find the missing words? Drag the correct word to open spot.

Click on Exercise 5 – Pleasant Sounds

Which of these sounds is pleasant is true to the ears? Select the true button if the sound is pleasant. Select the false button if it isn't.

Day 7 Science

Activity: *The Cloud That Won't Go Away*

Task

Read the article below and answer the questions that follow.

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

Breathe (verb): to take in air and then let it out

Cough (verb): to quickly push air out of the mouth

A Cloud That Won't Go Away

SALT LAKE CITY, Utah (Achieve3000, January 31, 2007). In Utah, many people cannot go outside. Why not? The air is too dirty.

What made the air dirty? Cars and factories gave off gases. The gases went into the air. The air is not safe to breathe. It makes people cough. Many people are staying indoors.

The air was not so dirty last winter. Why not? The days were windy. The wind blew the dirty air away. This winter, the air has been still.

People are hoping for a big wind. The wind would blow the dirty air away. Information for this story came from AP.

Question 1:What is the big idea in this news story?

1. Dirty air
2. Going outside
3. Windy days
4. Driving cars

Question 2: Why can't people in Utah go outside?

1. It is too cold.
2. The air is too dirty.
3. It rains all the time.
4. The roads are closed.

Question 3: Think about the news story. What made the air dirty?

1. The ground was too wet.
2. People threw trash on the ground.
3. Too many people live in Utah.
4. Cars and factories gave off gases.

Question 4: The news story says: Cars and factories gave off gases. A factory is a place where_____.

1. Animals live
2. Kids go to school
3. Something is made
4. People go shopping

Question 5: What is making people in Utah cough?

1. Rain
2. Dirty air
3. Snow
4. Windy days

Question 6: The air was not so dirty last year. Why not?

1. The days were windy.
2. Factories were closed.
3. The days were hot.
4. No one drove cars.

Question 7: Think about the news story. Dirty air must__.

1. Look nice
2. Be only in Utah
3. Make people sick
4. Be easy to clean up

Question 8: What will make the dirty air go away?

1. A big wind
2. Many cars
3. A snowstorm
4. More factories

Achieve3000(www.kidbiz3000.com)

Thought Question

What is the problem in Utah? How did it happen? Use evidence from the news story in your answer. Write your answer below.

Day 8 Science

Activity: Water Worries

Task

Read the article below and answer the questions that follow.

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

fresh water (noun): water, such as that in lakes and ponds, which is not salty

ocean (noun): a very large body of water

Water Worries

WASHINGTON, D.C. (Achieve3000, March 19, 2007). People, animals, and plants need water. However, some places have no clean water.

Earth Day is April 22. Read about Earth's water.

Not Enough Water

There is not enough water for people to use. Why not? There are many people on Earth. More are born each day. All these people use water. They drink it. They take baths in it. They use it for plants and animals.

The Oceans

There is lots of ocean water. Yet, people cannot drink ocean water. It is too salty. Drinking it makes people very sick.

Why is ocean water salty? When it rains, the water flows into rivers. The rivers flow into oceans. The flowing water picks up salt from the ground. This puts salt in the oceans.

An Answer?

People need more fresh water. How will they get it? They can take salt out of ocean water. They can clean dirty water. But, these things cost money. Many places do not have the money for this.

What can people do? They can use less water at home. They can grow crops that need less water.

Having fresh water is important. People are working hard to see that there is enough.



Question 1: Look at the picture above. Think about the news story. Which thing from the news story is shown in the picture?

1. Rain
2. An ocean
3. Animals
4. A flowing river

Question 2: What is the big idea in this news story?

1. Water flowing into oceans
2. Using water in homes
3. Getting fresh water
4. Salty oceans

Question 3: Which of these would not need fresh water?

1. People
2. Earth's sun
3. Animals
4. Earth's plants

Question 4: Why isn't there enough fresh water for people to use?

1. The oceans are drying up.
2. Earth's animals get the water first.
3. The rivers have already dried up.
4. Earth's many people use a lot of water.

Question 5: Think about the news story. Clean fresh water would not be used_____.

1. To keep ocean fish alive
2. For taking baths
3. To water plants
4. For drinking

Question 6: Think about the news story. People should not drink ocean water because_____.

1. It could make them very tall.

2. There are too many ocean fish.
3. It could make them very sick.
4. There is not enough ocean water.

Question 7: Where does the salt in the ocean come from?

1. The air
2. The sky
3. The plants
4. The ground

Question 8: The reader can tell that_____.

1. Everyone has fresh water.
2. Many people make fresh water at home.
3. Everyone needs fresh water.
4. Many people sell fresh water from home.

Thought Question

The world does not have enough clean water. What should be done to fix this problem? What is one good thing about this solution? What is one bad thing about the solution? Use evidence from the news story in your answer. Write your answer below.

Day 9 Science

Activity: Keeping KFC's Secret Safe

Task

Read the article below and answer the questions that follow.

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

filing cabinet (noun) a box of drawers, often used to store papers

herb (noun): a kind of plant used in cooking

recipe (noun): something that tells a cook how to make food

spice (noun): something added to food to make it taste better

Keeping KFC's Secret Safe

LOUISVILLE, Kentucky (Achieve3000, September 8, 2008). Colonel Sanders started Kentucky Fried Chicken. He made a secret recipe. It had 11 herbs and spices. People have tried to copy it. But KFC says no one has. Why not? It has some surprises.

The recipe is 68 years old. Sanders wrote it on paper. He wrote in pencil. It's been at KFC offices for 20 years. It's in a locked filing cabinet. Only two people can get into it.

Now, the recipe is moving. Why? KFC is fixing its offices. The recipe will be even safer.

Information for this story came from AP.

Question 1: This news story talks mostly about_____.

1. The KFC recipe
2. Surprises
3. Herbs and spices
4. Papers

Question 2: Let's say you are retelling this news story. It is most important to tell_____.

1. KFC wants to keep its recipe safe.
2. The recipe is on a piece of paper.
3. The recipe has spices.
4. KFC uses herbs.

Question 3: Think about the news story. Which took place last?

1. The recipe was moved.
2. Colonel Sanders made a recipe.
3. The recipe was written down.
4. Colonel Sanders wrote in pencil.

Question 4: Which of these is an opinion?

Hint: An opinion tells what a person thinks or feels. Others may not think this is right.

1. The chicken from KFC is good.
2. Colonel Sanders started KFC.
3. The chicken has herbs and spices.
4. Colonel Sanders made the recipe.

Question 5: The news story says:

Now, the recipe is moving. Why?

KFC is fixing its offices. Which must mean almost the opposite of moving?

1. Staying
2. Living
3. Making
4. Cutting

Question 6: Because KFC is fixing its office, then_.

1. The recipe will be safer.
2. People will copy the recipe.
3. The recipe will have more spices.
4. People will change the recipe.

Question 7: The news story does not say:

1. The recipe is new.
2. Sanders started KFC.
3. The recipe has surprises.
4. Sanders wrote the recipe.

Question 8: The news story says: The recipe is 68 years old. Sanders wrote it on paper. He wrote in pencil. It's been at KFC offices for 20 years. It's in a locked filing cabinet.

Which must mean the opposite of locked?

1. Open
2. Deep
3. Older
4. Dirty

Day 10

Task: Make Your Own Creatures of Light

Every wonder why some organisms flash, blink, or glow? Bioluminescent creatures are living things that generate light. Explore some of them that live on land.

In a forest in North America, mushrooms glow with an eerie green light. Fireflies signal one another in a pattern of yellow flashes.

Deep inside a cave in New Zealand, a hungry **glowworm** can produce over 40 sticky lures!



What You'll Need



- Black construction paper
- Scissors
- color tissue paper (green, blue, yellow)
- printouts of land creatures (forest, cave)
- paper clips
- tape
- ballpoint pen

What To Do

1. Use paper clips to clip the printout and the black construction paper together on all four sides.



2. Use a scissor to cut along the lines of the mushrooms and glowworm lures. (You'll be cutting through both the printout and construction paper.)



3. Use a ballpoint pen to poke through the firefly dots.



4. Take off the paper clips. Recycle the printout.

5. Measure and cut enough tissue paper to cover the shapes (use yellow for fireflies, green for mushrooms, blue for glowworm lures).



6. Tape the tissue papers to one side of the black construction paper.



7. Put your bioluminescent land creatures on a window!



This activity and images are provided courtesy of the American Museum of Natural History <https://www.amnh.org/explore/ology/zoology/make-your-own-creatures-of-light>