

SSFC SCIENCE CAMPS

Summer Science Family Activity Book

2020, Edition 1

Families with Kids in Grades **K-3**



UNIVERSITY OF SASKATCHEWAN

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Bug Scavenger Hunt

Today we are going to go into the wild world of your backyard! Let's the hunt for crazy critters that may be hiding out back there. You're going to need this piece of paper, a pencil or pen to write with, and maybe a helper if an adult is around.

An example of what to do in your scavenger hunt:

Numbers of worms: 5

Colour: light brown

Size: the size of my thumb

The bugs we're looking for:

Ants: Number of ants? _____

Colour: _____

Size: _____

Butterflies: Number of butterflies? _____

Colour: _____

Size: _____

Caterpillars: Number of Caterpillars? _____

Colour: _____

Size: _____

Lady bug: Number of Ladybugs? _____

Colour: _____

Size: _____

Grasshoppers: Number of Grasshoppers? _____

Colour: _____

Size: _____

Other Kinds of bugs in your yard:

Name of bugs: _____

Number of bugs: _____

Colours: _____




Size: _____




Further Learning: Draw some of the bugs you found today and try your best to label them!

Backyard Bird Watch!

One of the best parts about spring and summer is the morning songs of the many birds living in our environment. Part of being a scientist is observing and learning about the species that share our habitats! Here is a list of some of the most common birds in Saskatchewan backyards. Be sure to check off the birds you see. If you see any other bird and learn its name, make sure to add them to your list! If you do not know the name of a bird you observed, you can ask an adult to help. Birds Canada can help you learn about birds in your region.

(<https://www.birdscanada.org/apps/checklist/index.jsp>)

Bird Species	Image	Explain when & where you saw it!
American Crow	 A black and white photograph of an American Crow perched on a wooden post. The bird is facing right, showing its dark feathers and sharp beak.	
American Robin	 A black and white photograph of an American Robin perched on a wooden post. The bird is facing left, showing its characteristic dark head and back with a lighter breast.	
Black-capped Chickadee	 A black and white photograph of a Black-capped Chickadee perched on a wooden post. The bird is facing left, showing its black cap and white breast.	

<p>Chipping Sparrow</p>		
<p>Common Grackle (Near Threatened!)</p>		
<p>House Wren</p>		
<p>Additional Bird:</p>	<p>Draw a picture or print a picture:</p>	
<p>Additional Bird:</p>	<p>Draw a picture or print a picture:</p>	

Farm Animal Charades

Activity 1: Acting out Farm Animals (for one person)

1. Look at the sheet of animals on the next page.
2. Act out each animal. Think about how they move and the sounds they make.
3. Can you think of other farm animals? Act those out too!

Activity 2: Guess the Farm Animals (for more than one person)

1. Cut out the rectangles (with scissors) of the pictures of the animals on the next page and fold them up.
2. Place the folded papers in a container like a bowl or hat. Take turns drawing a paper from the container and acting it out in front of your audience until someone guesses it correctly.
3. Feel free to make up your own rules! You could start out the game with the rule that the actor cannot make any noises and if nobody guesses it then they can add animal sounds.

Want to add something new to the game?

Cut out the describing words at the end of this sheet and put those in a separate container. Add more of your own describing words if you would like! Draw a describing word and an animal and act that combination out (example: “silly chicken” or “sad sheep”).

Questions to think about:

-What are some animals you would not find on a farm in Saskatchewan? Where do they live instead? Why are they not on a farm?

-If you took a trip to the rainforest in Brazil (if you have a map, you can look at where Brazil is!), what animals do you think you’d find in the rainforest? Would any farm animals live in the rainforest?

Further learning #1:

Want to keep playing Animal Charades? Come up with a list of “jungle animals,” or “desert animals” or “snow animals” or “animals in the sea” or whatever categories you want and keep playing!

Further learning #2:

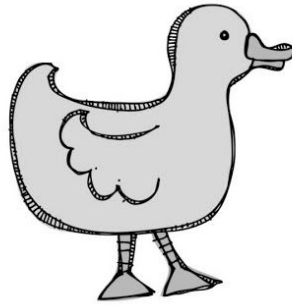
Do you have access to the internet and want the chance to see animals like baboons, hippos and platypuses? Check out the live cameras from the San Diego Zoo at <https://zoo.sandiegozoo.org/live-cams>.

Describing Words:

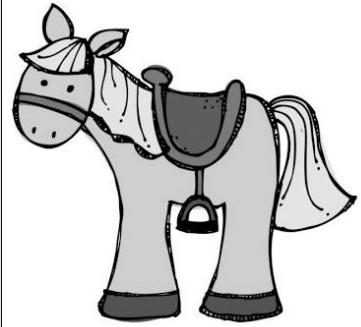
Silly	Sad	Excited
Tired	Friendly	Smelly
Happy	Messy	Old



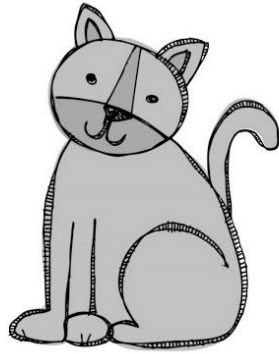
dog



duck



horse



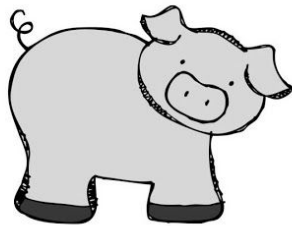
cat



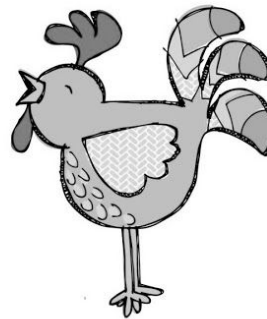
chicken



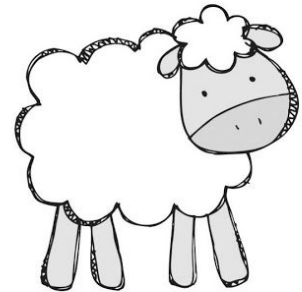
cow



pig



rooster



sheep

Build Your Own Worm House

Today you will be building a “house” for your own pet worm! Worms like to live in dirt and grass, so today we will be collecting all of these materials and finding worms that you can put into your own worm home!

What you need:

A container (anything will work)

- A “house” of your choice. It can be a shoebox, old cup, plastic container or anything you want that can hold dirt.
- Dirt
- Sand/gravel (if you can find some)
- Grass
- Small shovel or something to dig with
- Worms

How to Build a Worm House:

1. Grab your “house” and have it ready to put dirt inside
2. Start digging! Collect dirt, sand, and rocks and whatever else you think your worms might like.
3. Try and find some earthworms. They are usually in the dark brown dirt that feels cold and wet, that is where they like to stay!
4. Put your rocks and sand at the bottom of your house.
5. Put a lot of dark brown, cold wet dirt on top of the sand.
6. Now your worms are ready to go into their new home!
7. Put another layer of dirt on top of your worms to protect them from the sun and from the birds.
8. Layer your pile of dirt with some grass, leaves, and whatever else you think your worm might like.
9. Now you have a worm house!

Draw a picture of your worms in their new home! Try your best to include all of the different things you put in your worm house like the leaves, grass and dirt!

Let Minnow What Animals You Can Name!

For these activities, you can also use paper you have at home if you run out of room!

How many animals can you think of that have four legs? Write their names/draw them here!

How many animals can you think of that that can fly? Write their names/draw them here!

How many animals can you think of that are green? Write their names/draw them here!

How many animals can you think of that live in Saskatchewan? Write their names/draw them here!

Further learning:

Want to keep going? Think about these categories or make up your own!

-How many animals can you think of that swim?

-How many animals can you think of that have two legs? No legs?

-How many animals can you think of that live in the jungle? Live in the desert? Live in the snow?

-If you could create a new animal for the world, what would it be called? What would it look like? Where would it live?

Questions to think about:

Have you ever thought about why some animals live in water and others do not? Why are animals certain colours? Why are some animals big and other animals small?

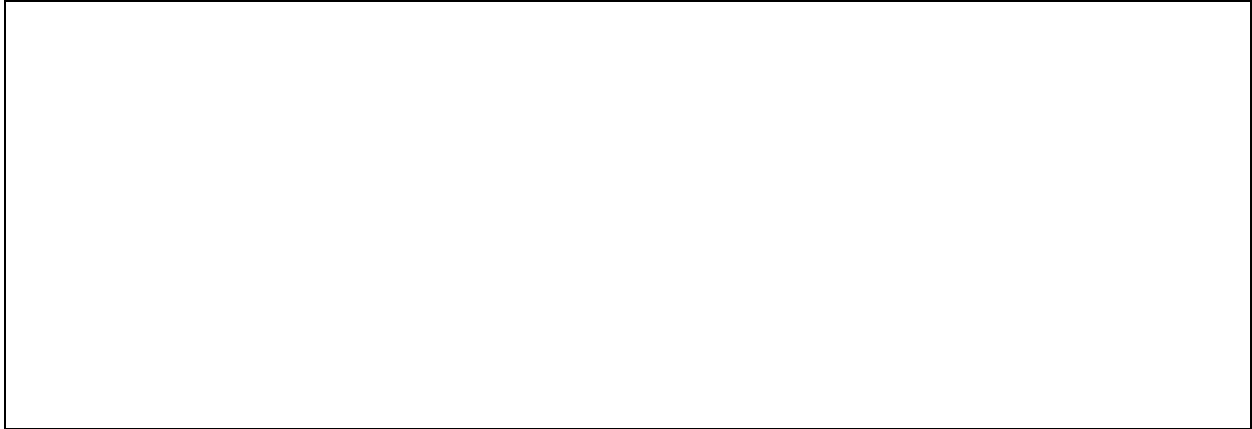
Start Your Own Nature Journal

Make your own nature journal to keep or remember all your favorite things about nature!!!

Fun with Leafs!

Go outside find your favourite leaf

Glue or draw your favorite leaf here!!



What colour is your leaf?

What shape is your leaf?

Where did you find this leaf?

Do you know where leaves grow?

Do you know what happens to leaves when it is cold?

Do you know what happens to leaves when springtime comes?

Fun with Flowers!

Go outside and find your favourite flower.

Glue or draw your favourite flower in the box on the next page!



What colour is your flower?

What shape is your flower?

Where did you find this flower?

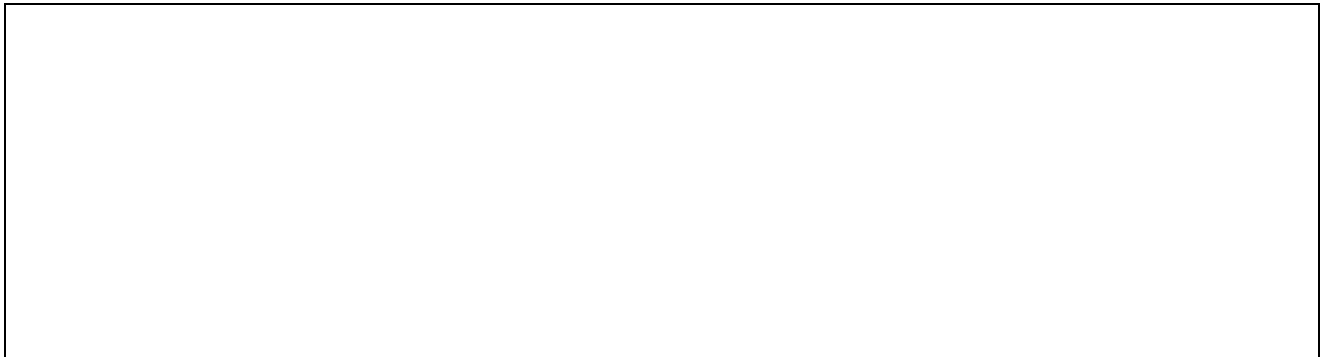
What do flowers need to grow?

Why do bees love flowers?

Fun with Bugs!

Find a bug outside.

Draw (DO NOT GLUE OR TAPE!) the favourite bug that you found.



Do you know the name of this bug?

How does the bug move? Does it crawl? Does it fly?

Build Your Own Ecosystem

What is an ecosystem?

An ecosystem is the place where things live! An example is that frogs live in areas with water and lay their eggs in the shallow parts!

Today we are going to be making our own ecosystems:

What you need:

- A container (anything will work)
- Rocks or pebbles
- Plants
- Water
- Dirt or soil

How to do it:

1. Fill the bottom of the container with rocks or pebbles
2. Cover the rocks with a layer of soil/dirt
3. Add some plants or leaves! Whatever you can find
4. Water your ecosystem now!

Now draw a picture of your ecosystem here!!

How to Start Your Own Rock Collection

Rocks come in many different colors, shapes, and sizes. Because no two rocks are exactly alike, they are a lot of fun to collect. Your rock collection will be truly unique, so start collecting rocks today!

Which Rocks do I collect?

You can collect any rocks that you find interesting. You might want to organize them by size, shape, or colour. Some put rocks from the same location together. Others look for unusual rocks from places they have visited like the park, or a relative's house. The decision is yours!

Where to Find Rocks?

You can begin by looking in your own backyard or around your neighborhood. Look in different parks or streambeds. Interesting rocks can be found in places where humans have cut into the earth like in ditches or quarries. If you want to explore these sites, make sure to bring an adult with you.

If you would like to take your collection journey further, there are rock collection shows and stores in Saskatoon!

Collecting Tools

Bring along a bucket or a bag to collect your rocks in and some gloves if you have some. Hammers are a good tool to trim off small pieces of rocks. Make sure you have an adult to help you with this and have safety goggles to protect your eyes

Cleaning and Displaying Rocks

Clean your rocks off with cool water and an old toothbrush.

Egg cartons, old shoe boxes, or clear jars make excellent display containers for your rocks.

You can also use some tape and a felt marker to label your rocks based on their colour, shape, size and location. The guide below might help you identify the type of rock. Bring the sheet on the following page with you and note these characteristics while you are collecting so you don't forget.

	Where I Found it:	What it Looks Like: (Colour, Shape, Size, pattern)
Rock # 1		
Rock # 2		
Rock #3		
Rock #4		
Rock #5		
Rock #6		

Chlorophyll Paintings

Why are plants green?

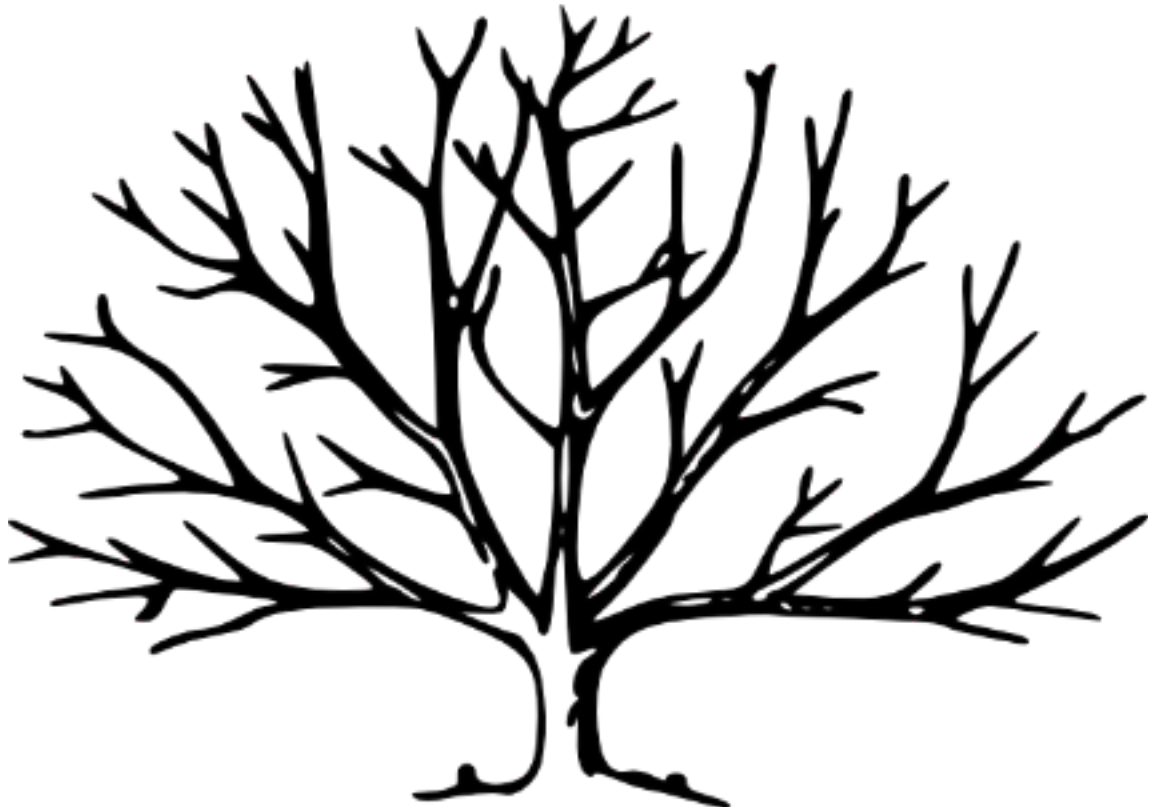
The leaves of most plants are green, because the leaves are full of chemicals that are green. The most important of these chemicals is called “chlorophyll” and it allows plants to make food so they can grow using water, air and light from the sun. Today, we’re going to take or “extract” chlorophyll from leaves that we find outside and use it as a paint!

What you’ll need:

- 8-10 leaves per student
- a white sheet of paper
- a metal spoon

To make your painting:

1. Collect some good, green leaves from your yard. Be sure to get a variety... some work better than others and you'll have to experiment with what works best!
2. Arrange your leaves over the empty branches on your picture below. Place the blank piece of paper over top of the leaves.
3. Press firmly on the leaves between the pages and rub with a metal spoon. You will have to press pretty hard! Avoid plastic spoons, as they can break when pressed firmly.



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