



Explorer's Camp

Grades 3 & 4

July 20-24, 2020

Name:

With support from:



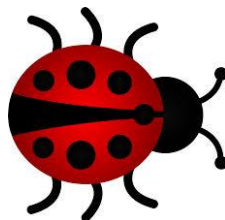
Welcome to the Backyard Science
Explorer's summer camp program for
Grade 3-4



This booklet is your guide for the week. Read through each day of the booklet to discover activities and challenges to complete, games to play, and videos to watch.

This week we are focusing on a flowers and bugs theme! We will be completing some fun nature crafts, finding ways to care for bugs in our gardens, and we will enjoy some wonderful stories!

On Thursday you will have the chance to enter a competition! Remember to share your entries for a chance to win our fun prizes which have been generously donated by local companies!



If you have any questions throughout the week please email education@greencalgary.org or call Stephanie at 403.400.7975

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Welcome to the first day of the Explorer's Backyard Science summer camp! We hope you are looking forward to a week full of fun activities. Today we are focusing on plants and trees! You might choose to complete the activities in your garden, or in your local park (or indoors if it is raining!).



Plants!

Plants are really amazing. They grow all over the world and adapt to where they live. All plants need water, light, and nutrients to grow. Some plants do not need very much water and can live in very dry places (like some parts of Alberta!). These plants often have deep roots that can reach water far under the ground, small leaves, and waxy or hairy leaves. These plants often grow slowly and do not need a lot of maintenance.

You might be able to find some of these plants which have adapted to live in dry places near your home:

Juniper



Nest Spruce



Thank you to the Calgary Horticultural Society for their help with this information!

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Scavenger hunt!

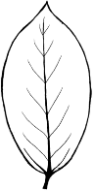







We are going to search for different types of plants. You can try to complete this in your garden, but you might need to go on a walk in your community to complete the whole scavenger hunt!

When you find each item you can draw it, or if it is already on the ground you can stick it onto your scavenger hunt. Remember not to pick any plants or flowers!



Psst! Need a clipboard for your scavenger hunt? You can make one using a recycled piece of cardboard and a rubber band!

Scavenger hunt!

<p>Leaf with smooth edges</p> 	<p>Leaf with jagged edges</p> 
<p>Smooth leaf</p> 	<p>Rough leaf</p> 
<p>A plant taller than you (draw this!)</p> 	<p>A plant shorter than a finger</p> 
<p>A very colourful plant</p> 	<p>A plant with seeds</p> 

Activity 1: plate garden

In this activity you can create your own miniature world! You might choose to make a dinosaur land, a vegetable plot or a fairy garden, the choice is yours!



Instructions

What you will need checklist:

- Plate
- Dirt
- small stones
- flowers
- miniature animals or figures

Instructions:

1. Prepare your chosen plate – ask before you use one from the kitchen!
2. Add a layer of dirt – this will keep everything in place
3. Design your miniature garden!



Seeds

Flowering plants make seeds. Once the plant has grown seeds, it will spread the seeds so they can grow into new plants. Plants spread seeds in many ways, here are a few:

Falling – seeds fall from the plant	Wind – seeds are blown away from the plant by wind
Hooks – may hook onto passing animals and fall away from the plant	Animals – some seeds are eaten (but not digested) by animals. The animals poop out the seeds and they will grow. Other animals will carry seeds and bury them.

Try to find an example of each and draw it in the box.

Activity 2: eggbox planter

Start your plant seeds in a recycled container such as an eggbox. When they grow too big, simply cut apart the eggbox and plant your seedlings into bigger pots.

Instructions

What you will need checklist:

- Eggbox
- Soil
- Seeds
- pen

Instructions:

1. Fill each hole of the eggbox with dirt
2. Read the seed instructions carefully, all seeds need to be planted differently. Some seeds need to be planted deep in the soil, while others can be sprinkled on the surface. Plant 1 seed per hole in the egg box.
3. Label the lid of the eggbox so you know which seed is which!



Activity 3: dandelion recycled art

Use recycled objects and items found in your garden to create a beautiful dandelion picture!

Instructions

What you will need checklist:

- toilet tube
- Scissors
- Bottle cap
- Sticks
- Paper plate or paint tray
- White paint
- Piece of cardboard or paper



Instructions:

1. Cut lots of strips around the bottom of the toilet paper tube and push back.



2. Dip the toilet paper tube in the white paint and dab onto the cardboard/paper



3. Dip the edges of the bottle cap in the white paint and stamp in the middle of each flower



4. Using one stick as your paintbrush, add stems and stalks to your flowers



5. Bunch together several sticks and dip in the white paint. Dab over your flower to fill in the gaps.



What type of tree has
hands?

A palm tree!



We hope you enjoyed the first day of the Backyard Science summer
camp!

See you tomorrow!



Welcome to the second day of the Backyard Science summer camp! Today we are focusing on trees and will begin by reading 'The Busy Tree' by Jennifer Ward. You are going to choose your own busy tree and complete activities around this tree!



The Busy Tree

Watch the video for this morning to listen to the story of 'The Busy Tree' by Jennifer Ward.

After you listen to the story, find your own busy tree. Watch the tree for a while.

What do you see?

What animals can you see in or near the tree?

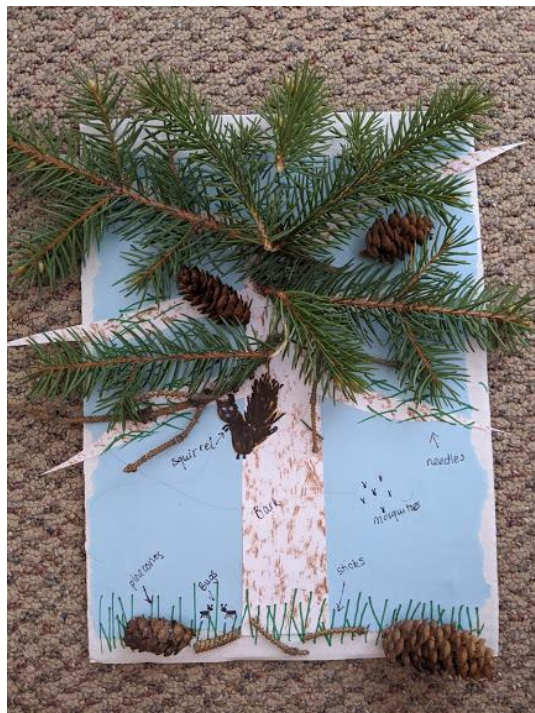
What plants can you see?

How big is the tree?

What do the leaves look like?

Can you find any seeds?

Now you can create your own busy tree to show what you found in your tree. Add pieces of the tree into your art. Use a crayon to make a bark rubbing picture. Collect some of the leaves. Your picture could include a mixture of items you have collected, drawings and notes about what you see.



Activity 4: sprout head

Grow your own sprouts – you can enjoy watching them grow AND you can eat them!

Instructions

What you will need checklist:

- sprout seeds
- Old stockings/tights
- Dirt
- Scissors
- Elastic band
- Googly eyes
- Jar/tin can
- glue

Instructions:

1. Cut one leg off your stockings
2. Place approximately 1 tbsp of sprout seeds in the toe of the stocking



3. Add roughly 2-3 cups of dirt to fill out the head. Squash it down to the bottom, then secure an elastic band around the bottom to keep the dirt in place. You will need a tail of about 10cm.



4. Pinch out a nose and secure with an elastic band.
5. Stick on the eyes



6. Put in a jar or tin can. You could decorate the jar/tin so it looks like your sprout head is wearing clothes! You will need to keep the bottom of the jar/tin filled with water, and make sure the tail of the stockings is in the water. Your head should start to grow within a week!



Activity 5: paper plate bug

Make a paper plate bug to hang on your busy tree!

Instructions

What you will need checklist:

- Paper plate
- Paints
- Googley eyes (optional)
- Scissors
- Glue
- Peg



Instructions:

1. Cut one paper plate in half
2. Paint the two halves red, and another full plate black. You will also need another smaller circle. Paint this black.



3. Once the plates are dry, stick the two semi-circles onto the black circle, and stick the smaller black circle on top.
4. Paint dots onto the red wings



5. Add eyes, legs and antennae



6. Glue a peg onto the back of the plate



7. Peg onto your busy tree!
8. You can make several different bugs to add to your tree!

Activity 6: press flowers

We know that flowers attract pollinators! We are going to press some flowers to use for a craft later this week.

Instructions

What you will need checklist:

- Selection of flowers
- Tissue paper or parchment paper
- Something heavy to squash your flowers – some books would work well!

Instructions:

1. Lay out your flowers on the tissue paper or parchment paper. Try to arrange them and spread out the petals



2. Cover with another piece of tissue
3. Place something heavy on top – a few books would work well



4. Leave for a few days – we will use these for a craft at the end of the week!



What do you call a tree that
is good at math?

A GeomeTREE!

See you on Wednesday!



Welcome to the third day of summer camp. Today we are going to look for birds in our gardens. We are going to explore to see which species we can find and will make some bird feeders for them!

We have a live video session today at 12 noon!

To join the live session, visit www.zoom.us and click on 'Join a Meeting'. Please enter the **Meeting ID: 714 7891 9128** and the **Meeting Password: summer** or follow this link:

<https://us04web.zoom.us/j/71478919128?pwd=U1FSZndqZmlxQitGMnhZZFBsNWlrZz09>



Bird Watching

(Activities adapted from Green Calgary and CPAWS YYC Young Citizen Science Program)

Find a comfortable place to sit in your garden or local park. Sit very quietly, and see which birds fly by. As you see each bird, take a photo, or a drawing, or write some notes so you can remember what they look like. Look up the birds you see, which species did you spot?

You can use www.whatbird.com or www.aiwc.ca to help you!

You could lay out some bird seed to attract more birds to your garden!

Bird species (look this up later!):

Markings:

Notes:

Drawing or photo:

Bird species (look this up later!):

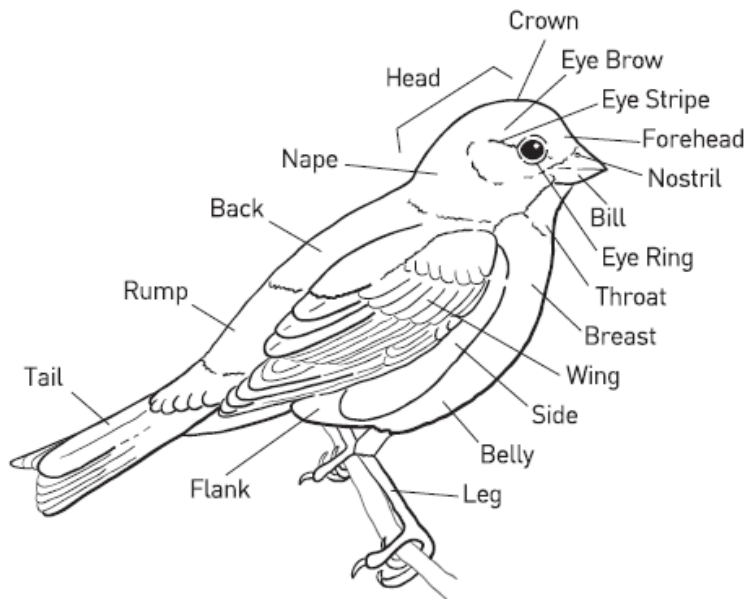
Markings:

Notes:

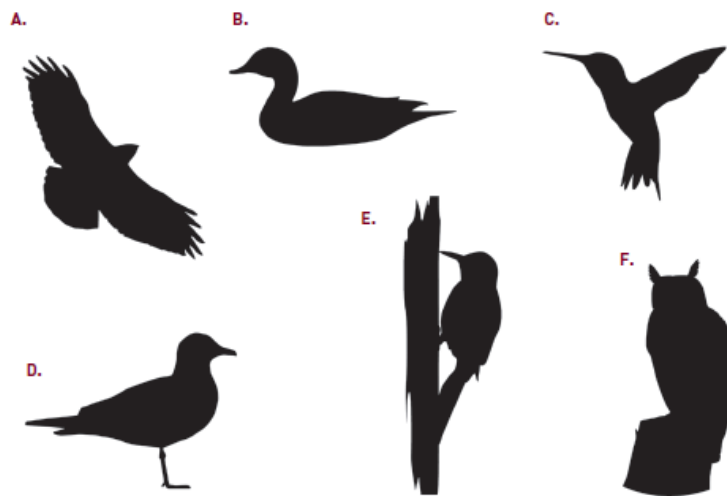
Drawing or photo:

Bird Identification

Markings can help you identify a bird species. Look at each body part to help you identify the bird.



It may also help to look at the shape of the bird. Can you guess what these birds are based on their shape?



- Image from BirdSleuth

Birds you might see in Calgary

American Crow



American Robin



Black-billed Magpie



Canada Goose



Mallard



Black-capped Chickadee



House Sparrow



European Starling



Activity 7: bird pictures

After watching for birds in your garden, choose your favourite bird and make a picture of them. You will need to collect some feathers to add to your picture.

Instructions

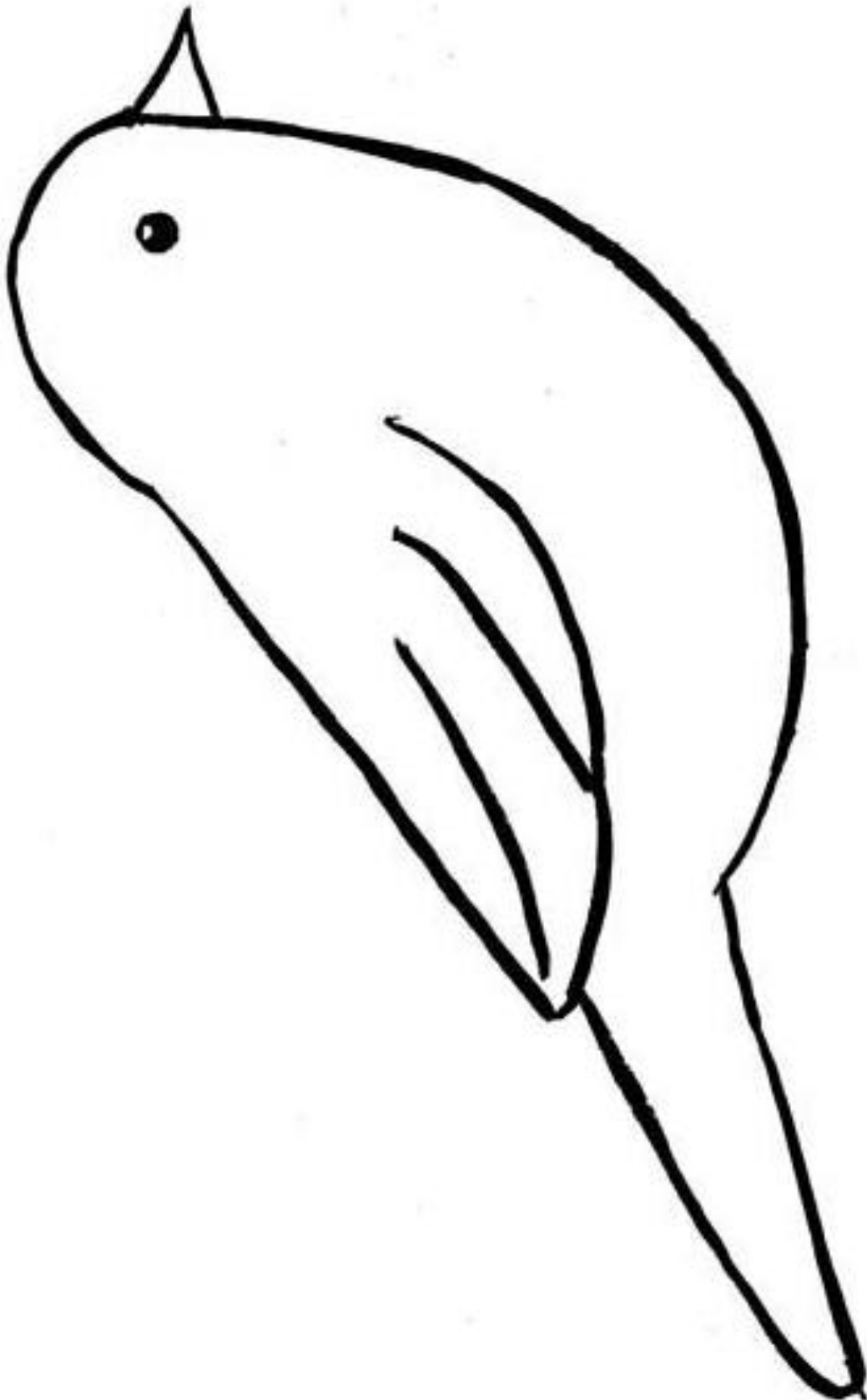
What you will need checklist:

- Feathers
- Colour pens
- glue

Instructions:

1. Print the bird template on the next page
2. Go for a walk and collect feathers to add to your picture.
3. Colour in the bird, then glue feathers on top. You could colour the feathers before you stick them onto your bird.





Activity 8: toilet tube bird feeders

Attract birds to your garden with this very simple bird feeder with uses recycled materials!

Instructions

What you will need checklist:

- Toilet tube
- String
- Peanut butter or beef suet (not lard, it is too salty)
- Bird seed
- Dried cranberries and raisins (optional)
- Grubs (optional)



Instructions:

1. Tie a long piece of string around the toilet tube.
2. Carefully spread peanut butter (or suet) onto the toilet tube. Make sure the whole tube is covered.



3. Roll the toilet tube in bird seed, dried fruit and grubs. Make sure all of the peanut butter is covered



4. Hang your bird feeder somewhere quiet
5. It may take a few days for birds to visit your feeder – be patient!

Activity 9: homemade paper

We are going to start making our own recycled paper today.

PLEASE ASK A PARENT TO HELP YOU WITH THIS ACTIVITY!

Instructions

What you will need checklist:

- Lots of paper (use scrap paper from the recycling bin). You can also use egg cartons.
- Bowl
- Rolling pin
- Towel
- Parchment paper
- Food processor or hand blender (ask a parent to help you!)

Instructions:

1. Gather lots of paper and tear into small pieces (about 2cm squares)



2. Put the scraps of paper into a bowl and soak in water for at least 10 minutes



3. After 10 minutes, put the soaking paper into a food processor, or use a hand blender to blend the mix into mulch. ASK A PARENT BEFORE USING A FOOD PROCESSOR OR BLENDER!



4. Lay out a towel and cover this with a sheet of parchment paper
5. Put a blob of the paper mulch onto the parchment paper, cover with another piece of parchment paper and carefully roll out. The mixture should be rolled thin but be careful not to make any holes.

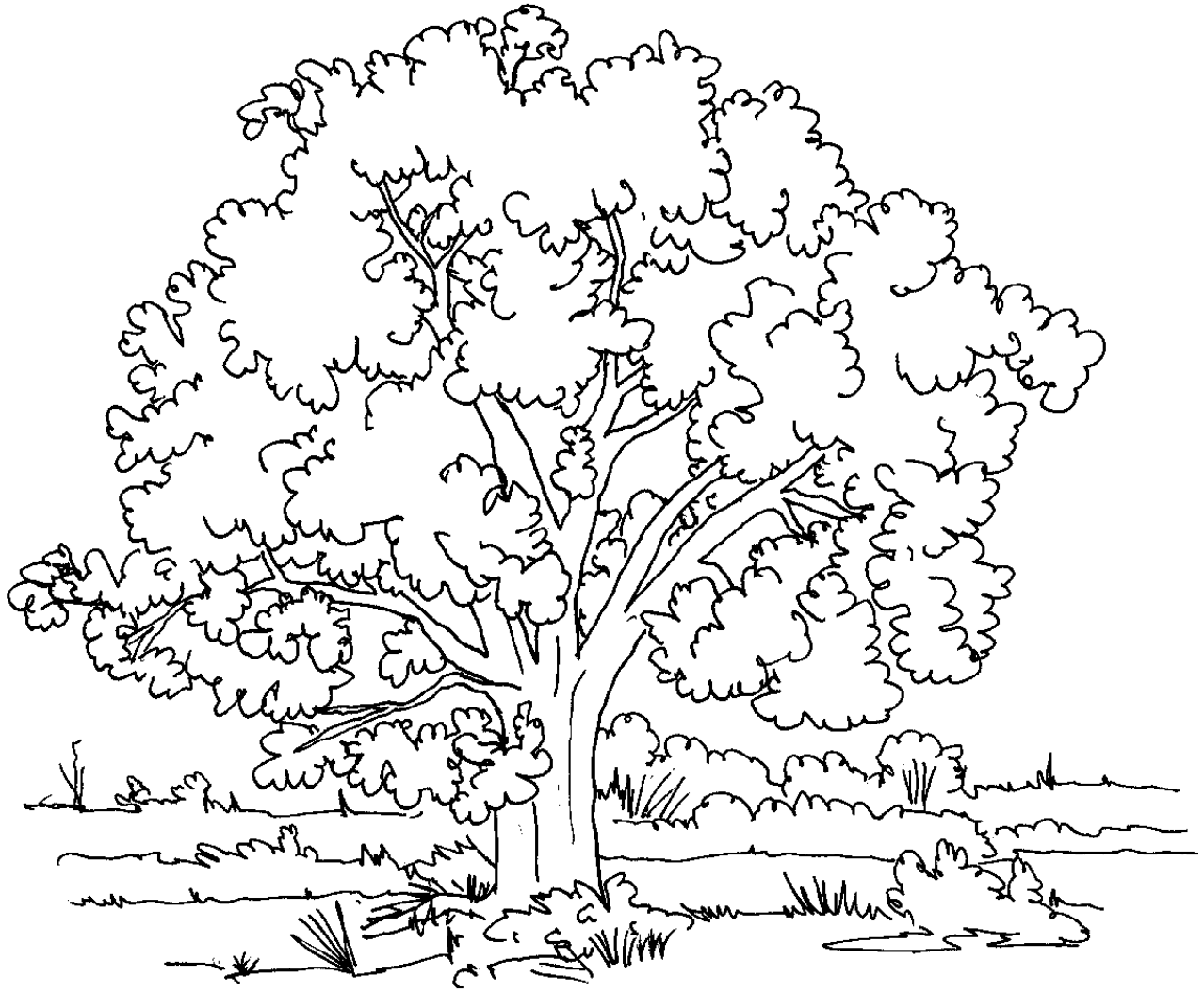


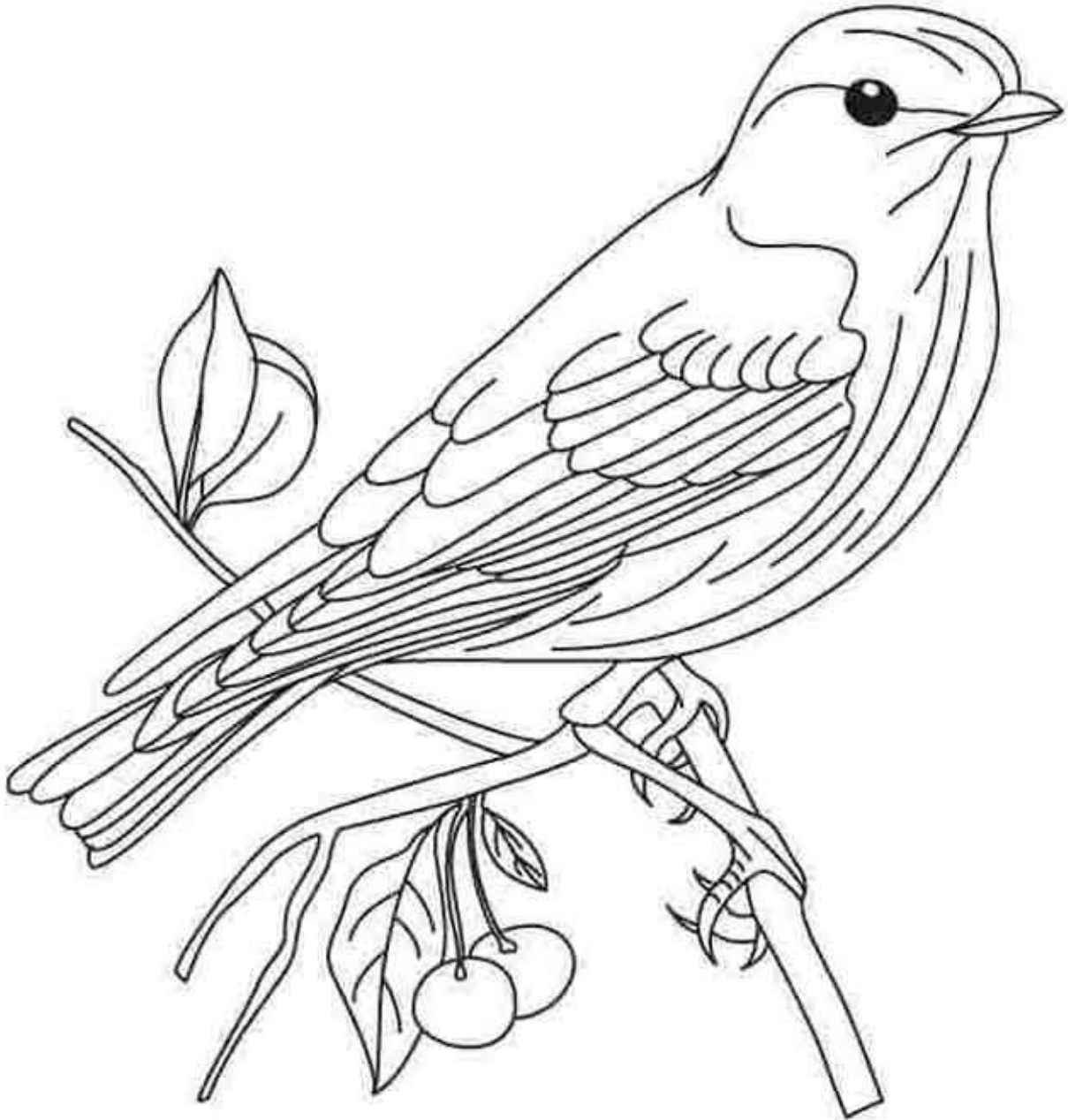
6. Remove the top layer of parchment paper and use a tissue to soak up some of the moisture from the flat paper mix.
7. Leave your paper to dry, uncovered, in a safe place for at least a day



Colouring Pages







Why did the gardener plant light bulbs?

He wanted to grow a power plant!



I hope you enjoyed the activities today! See you tomorrow!



Welcome to the fourth day of summer camp.

Today we are going to start the day by reading 'We're Going on a Bear Hunt' by Michael Rosen. Watch today's video to listen to the story.

After we have listened to the story, we are going to go on our own bear hunt! Be brave, Explorers!

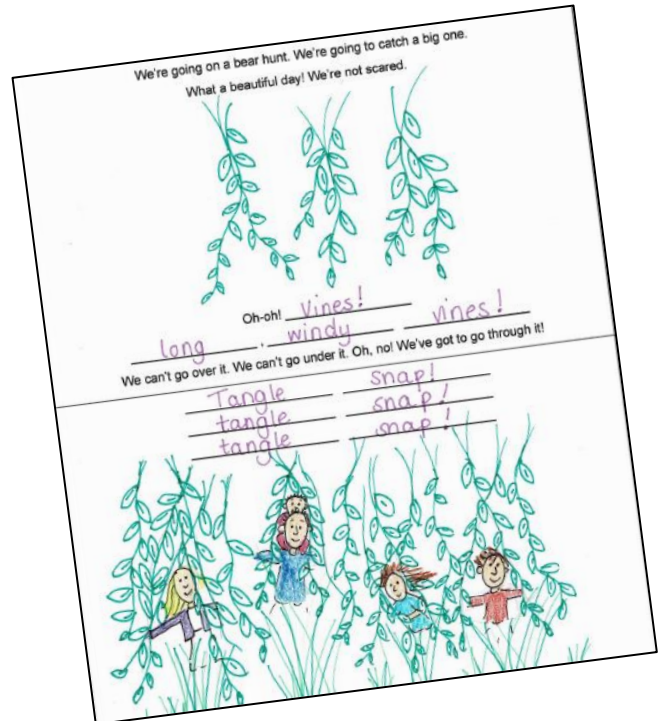
Activity 10: where are you going on a bear hunt?

It's your turn to go on a bear hunt! Where will you go?
Create your own page (or pages) to add to the bear hunt!

Instructions

Instructions:

1. Read or listen to 'We're Going on a Bear Hunt' again.
2. In the story they have to go through many obstacles:
 - Long, wavy grass – swishy swashy!
 - A deep, cold river – splash splosh!
 - Thick, oozy mud – squelch squerch!
 - A big, dark forest – stumble trip!
 - A swirling, whirling snowstorm – hoooo woaaa!
 - A narrow, gloomy cave – tiptoe!
3. Decide where you will go on the story. What noise will this make? To help you think of some ideas, you could act out the story. Maybe you'll go through the long, windy vines! Tangle, snap! Or maybe you'll walk through the wet, pouring rain! Drip drop!
4. Complete your page of the story using the template below or make your own!



Competition time!

Email us a photo of your Bear Hunt page to education@greencalgary.org OR upload a photo to Instagram and use #GreenCalgary. We will select a winner and you could win prizes from some amazing local companies! We will share a winner on Friday!

We're going on a bear hunt. We're going to catch a big one.

What a beautiful day! We're not scared.

Oh-oh! _____

_____, _____

We can't go over it. We can't go under it. Oh, no! We've got to go through it!

_____	_____
_____	_____
_____	_____



Go on a bear hunt – where is the bear?

Why not go on a bear hunt in your house, garden or local park? Ask someone to hide a toy bear, then you can search for it. They could help you out with clues so you know when you are getting warmer!



We're going on a bear hunt – time to act!

Go for a walk and act out the story of *We're Going on a Bear Hunt*. You can also add in your own obstacles to overcome as you search for a bear!

Which flowers are good friends?

Rose buds!



We hope you enjoyed going on a bear hunt! See you on Friday!



Welcome to Friday, our last day of summer camp! Today we are going to enjoy some fun games and activities in our gardens or communities!

We have a live video session today at 12 noon!

To join the live session, visit www.zoom.us and click on 'Join a Meeting'. Please enter the **Meeting ID: 755 3092 2046** and the **Meeting Password: summer** or follow this link: <https://us04web.zoom.us/j/75530922046?pwd=YkRWdWhtaRU5DUTNiNFcvRXp5NjJXZz09>

Activity 11: community stones

Decorate a stone and hide it in your local park or community – you can leave a happy message for someone else to find!



Instructions

What you will need checklist:

- Stones
- Paints

Instructions:

1. Choose a few large stones
2. Wipe the stone to make sure it is clean
3. Paint it with your chosen pattern or message
4. Hide the stone in your local park or community!

Balancing stone tower

Let's play a game! You will need a collection of stones. Take turns with a partner to add a stone on top of one another. How high can you make the tower before it falls down?!



Activity 12: suncatcher

Earlier in the week we pressed some flowers. Now we are going to use those flowers to make a beautiful sun catcher to hang in your window!

Instructions

What you will need checklist:

- Pressed flowers
- Cardboard
- Round items to draw around (bowls and plates work well!)
- Pen
- Scissors
- White tissue paper
- Glue
- hole punch
- string



Instructions:

1. Draw around a round object so you have a large circle on the cardboard. Draw a smaller circle inside.
2. Cut out the hoop. You may need to ask an adult to help with this step!
3. Repeat so you have 2 hoops



4. Cut 2 circles of white tissue paper and stick onto the hoops

5. Arrange your dried flowers on one sheet of tissue paper and carefully glue in place. The flowers might be a bit delicate!



6. Place the second hoop of top of the other and glue in place
7. Punch a hole at the top of the hoop and attach some string to hang your suncatcher
8. Hang your suncatcher in a window and enjoy your beautiful pressed flowers!

Activity 13: water catcher

Make your own water catcher in the garden! You could use this to collect rain water to water your plants, or just make it for fun. Get creative...make multiple pathways and different obstacles for the water!

Instructions

What you will need checklist:

- A variety of recycled plastic materials (bottles, milk jugs, food containers)
- Sharp scissors (ask a parent to help with this!)
- Tape to cover any sharp edges
- Pins to attach your items to a strong surface
- Large water collection bucket

Instructions:

1. Collect a variety of recycled plastic items
2. Choose an area in your garden to collect water.
You will need to attach the plastic items to something solid such as a fence
3. Start arranging your plastic items. You may wish to draw a plan before you start
4. Use scissors to cut additional holes in your recycled items as needed
5. Make your catchment system as fun and creative as you wish!
6. Place a large bucket/container at the base of your water system to collect your water
7. Once your bucket is full of captured water, use this to water your yard!



What do you call an ant that won't go away?

A PermanANT!

Thank you for joining Green Calgary's Backyard Science summer camp! We really hope you enjoyed your week and all of the activities!

There are lots of other resources available on our website at www.greencalgary.org



Share with us!

We would love to see photos of your summer camp crafts and activities. Please tag us @GreenCalgary or hashtag #GreenCalgary in your social media posts!