



Language Arts Social Studies Visual Arts Media Literacy Mathematics

CANADA'S HONEY INDUSTRY



Grades 1 - 6 Bundle



CANADA'S HONEY INDUSTRY

SKILL DEVELOPMENT - Language Arts, Social Studies, Visual Arts, Media Literacy, Mathematics

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LEARNING STANDARDS

Learning Standards describe what students should know, be able to do, and understand by the end of each grade. Learning standards frame the important competencies/expectations and big ideas for each grade. Lessons in this bundle address the following standards:

VISUAL ARTS

- Apply the creative process to produce works of art using the elements, principles and techniques of visual arts to communicate feelings, ideas, and understandings.
- Use the critical analysis process to describe, interpret and respond to works of art.

LANGUAGE ARTS

- Listen to understand and respond appropriately.
- Use speaking skills and strategies appropriately to communicate.
- Read and demonstrate an understanding of texts including media texts.
- Write for an intended purpose.

SOCIAL STUDIES

- Gather and analyse information, solve problems, and communicate.

MATHEMATICS

- Use spatial reasoning to construct shapes and objects.

LOOKING AT ART

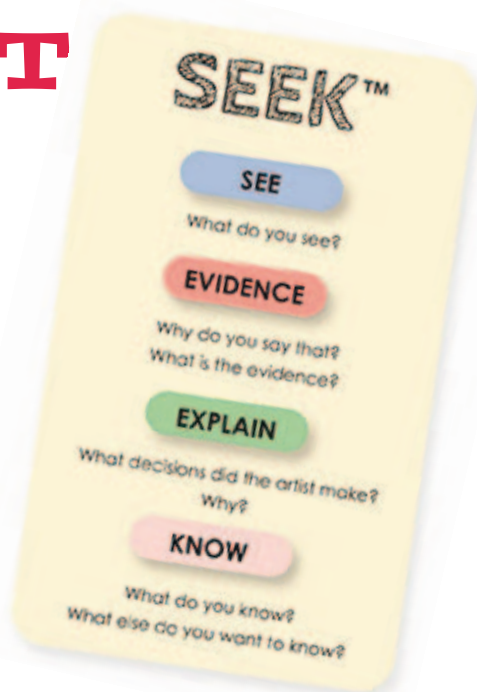
Have students use SEEK™ to help organize their thinking and build their observational skills. Guide them to support their ideas with evidence they see in the artwork.

SEE – Look closely at the image for about a minute. What do you see?

EVIDENCE – What do you see that makes you say that?

EXPLAIN – What choices did the artist make? How did those choices help communicate the message?

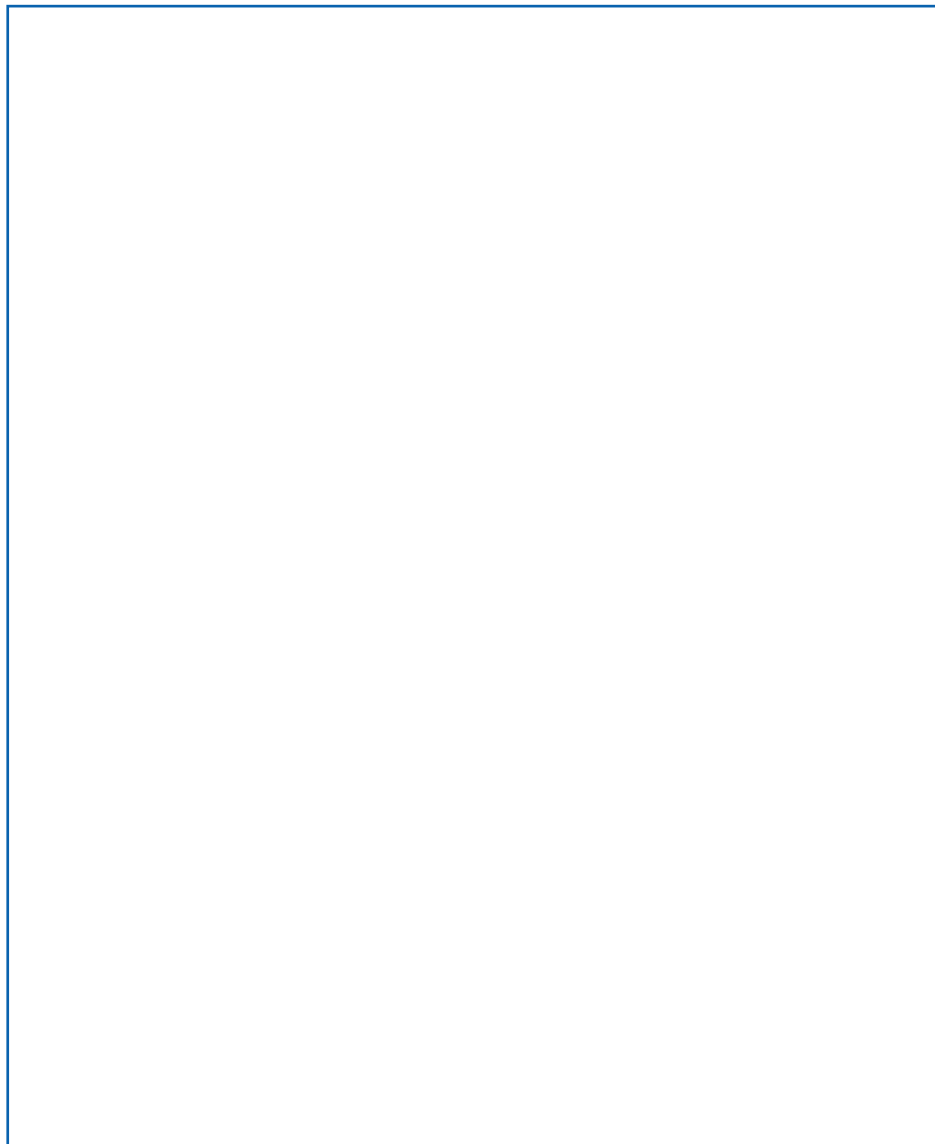
KNOW – What do you know about the artist's intent? What else do you want to know?



Aganetha Dyck - An Artist Who Works With Bees

Click on the link to view the sculpture **The Masked Ball** by Aganetha Dyck.

Make a sketch of part of the sculpture in the space below. Include lots of details.



'Masked Ball' by Aganetha Dyck

WORK WITH A PARTNER

1. What Do You See? Take a quiet moment to look at the sculpture.

Tip - These are real old-fashioned dolls and figures that bees helped decorate!

Don't worry about saying the "right" thing – just notice what you see.

Ask yourself: What are the shapes?

What do the figures look like?

Are they dancing, standing still, or doing something else?

What colour is the wax the bees made?

2. What do you think is happening in the sculpture?

3. Why do you think it's called 'Masked Ball'?

4. What do the bees add to the sculpture?

5. If you could step into the sculpture, what do you think you would hear?

6. What might the dolls be saying at the masked ball?

7. If bees could talk, what would they say about helping with this sculpture?

8. Make a 3 panel graphic story about the bees and the dolls. Include speech bubbles.

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Names: _____

Date: _____

Canadian Artist Aganetha Dyck



A CANADIAN ARTIST WHO WORKS WITH BEES!

Aganetha Dyck is a Canadian artist who makes really cool and unusual art. What makes her art special is that she works with honeybees to help her create it!

She doesn't paint with brushes or use clay like many artists do. Instead, she gives bees little objects like shoes, helmets, or dolls, and then the bees slowly build their wax honeycomb on the objects. The bees make beautiful patterns, turning ordinary things into amazing sculptures!

Aganetha is very kind to the bees. She works with beekeepers to make sure the bees are safe and happy. She wants people to think about how important bees are to our world and how we need to take care of nature.

Her work helps
us see nature in a
new way.

Her
work shows
how people and
animals can work
together.

She
reminds us that
even tiny creatures
like bees can do big
and beautiful
things.

FUN FACT

Aganetha didn't start making bee art until she was older, showing that it's never too late to try something new!

Aganetha Dyck – The Artist Who Works With Bees!

Fill in the missing information.

1. Aganetha Dyck is a _____ .
2. She makes _____ .
3. _____ help her make her art.
4. She gives the bees _____ , _____ or _____ .
5. The bees build _____ on the objects.
6. They turn ordinary things into _____ .
7. Aganetha is very _____ to the bees.
8. She wants people to think about how _____ bees are.
9. Her work shows how people and animals can _____ .
10. Her work helps us to see nature in a _____ .

Honeybees

kind

important

work together

amazing sculptures

unusual art

new way

Canadian Artist

wax honeycomb

shoes, helmets, dolls

Name: _____

Date: _____

Canada's Honey Industry

Did you know that Canada makes a lot of honey? Bees all across the country work hard to make sweet, golden honey that we can eat and use in many ways.

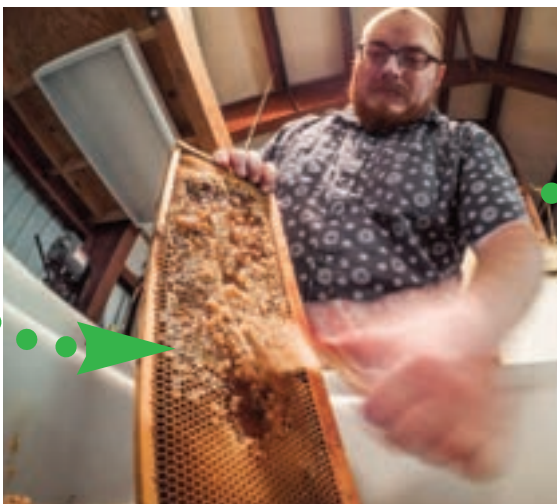
HERE'S HOW IT WORKS



Beekeepers take care of the bees.
They give them safe homes called hives.



Bees fly around and collect nectar from
flowers. Then, they turn it into honey!



Beekeepers collect the honey from the
hives, clean it, and put it into jars.



This honey is sold in stores across Canada
and even sent to other countries!

Bees – Small But Mighty!

Did you know that bees are super helpers in nature? They do important work every day just by flying from flower to flower.

THEY HELP PLANTS GROW

When bees visit flowers to collect nectar (the sweet juice), they also move pollen from one flower to another.

This is called pollination – and it helps plants make fruits, vegetables, and seeds!

Thanks to bees we get yummy foods like apples, grapes and pears!



THEY SUPPORT THE WHOLE ECOSYSTEM

Bees help plants grow, and plants feed animals, clean the air, and give us shade and beauty.

So when bees help plants, they help the whole planet!

Why this industry is so important . . .



Bees help our environment.

Beekeepers sell honey in Canada and other countries.

Canada produces over 80 million pounds of honey each year worth millions of dollars!

The honey industry creates jobs for beekeepers, farmers, truck drivers, honey factory & store workers.



Bees are super important for pollination – they help plants grow, which helps farmers grow food too.

Beekeepers help keep bee populations safe and healthy.

Healthy Bees – A Healthy World!



Just like people and pets, bees can get sick too.
When bees get sick, it's called a bee disease.

WHAT CAN MAKE BEES SICK



PESTICIDES

Chemicals sprayed on plants that hurt bees if they land on them.

GERMS

Viruses and bacteria make bees sick.

TINY BUGS

They stick to bees and make them weak.

WHAT HAPPENS WHEN BEES ARE SICK



Sick bees might not be able to find flowers.

Some bees might die.

If too many bees get sick, the whole hive can be in trouble.

Beekeepers check their hives often to make sure the bees are healthy. They can remove sick bees; clean the hives or give bees special treatments to help them get better.
Keeping bees safe helps our plants grow, our food grow, and our planet stay strong.

Buzzy Bee

Did you know that bees can dance? They do it to talk to each other – not with words, but with wiggles! When a bee finds a good place with lots of flowers and nectar, she flies back to the hive and does a dance for the other bees. This special dance is called the **waggle dance**! Bees dance to share information. It's their way of saying, "Hey! I found yummy flowers over there! Let's go!" Thanks to this dance, other bees can find food fast and help bring it back to the hive.

Here's how it works – The bee waggles her body while walking in a circle or a figure 8. The way she moves tells the other bees: 1. Where the flowers are. 2. How far away they are, and 3. Which direction to fly. She uses the sun to guide them!



CREATE a kazoo bee puppet using simple materials. Practise making a buzzing sound with the kazoo puppet. Work with your classmates to create a performance of the waggle dance that includes your puppets.



PRESENT your puppet to the class. Start by introducing your puppet – your bee could have a name, a favourite flower or a fun fact. With your group perform your bee dance using your puppets. Buzz around to find flowers. Return to the hive. Do the waggle dance while the others follow the moves. Be sure to buzz with your kazoos, wiggle your puppets and have fun moving like bees!



RESPOND to the your peers' puppets and show. Watch carefully. Look at how your friends use their puppets. Listen to the sounds they make. Watch how they dance like bees. Say something kind. Say what you liked and why. Be specific. Ask a thoughtful question about something you are curious about.



CONNECT what you have learned about bees with your own life. What does the way bees work together remind you of? What does learning about the bee dance help you understand? What does making your bee puppet make you want to do next? What did you learn about yourself while doing this project?

Buzzy Bee Puppet

You will need:

- Crayola White Glue
- Crayola Paint Brushes
- Crayola Scissors
- Crayola Acrylic or Tempera Paint
- Small Styrofoam Balls - 2 per student
- Toothpicks
- Wax Paper
- Small Hair Elastics
- Pipe Cleaners - Black and Green
- Googly Eyes
- Paper Towels
- Water Containers
- Paper Plates for Palettes
- Paper Towel Rolls - 1/2 per student

1



2



3



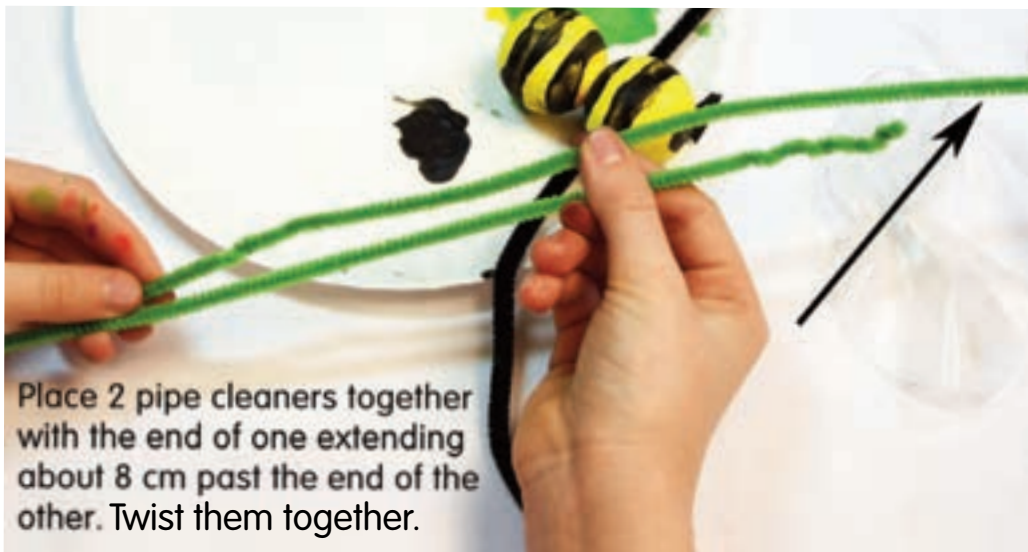
4



5



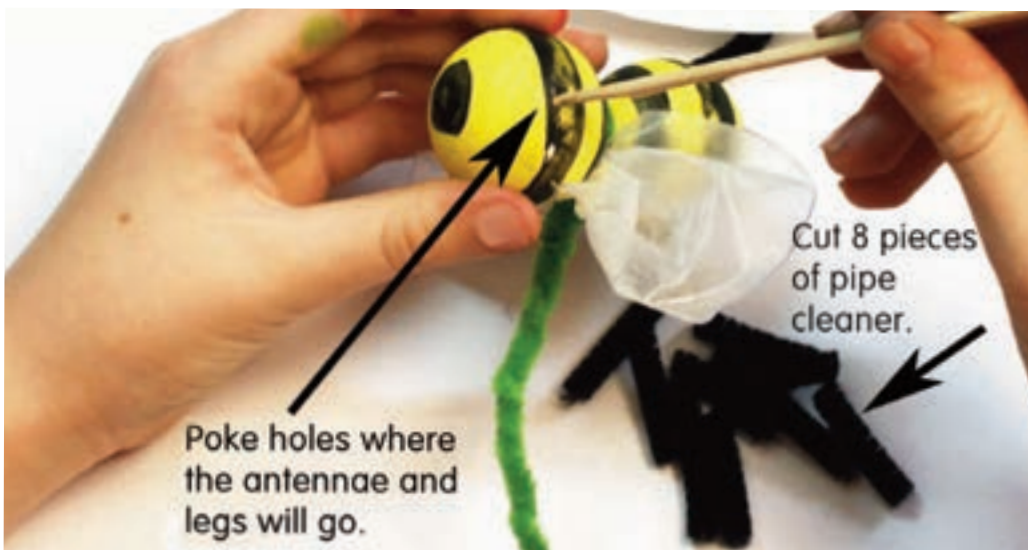
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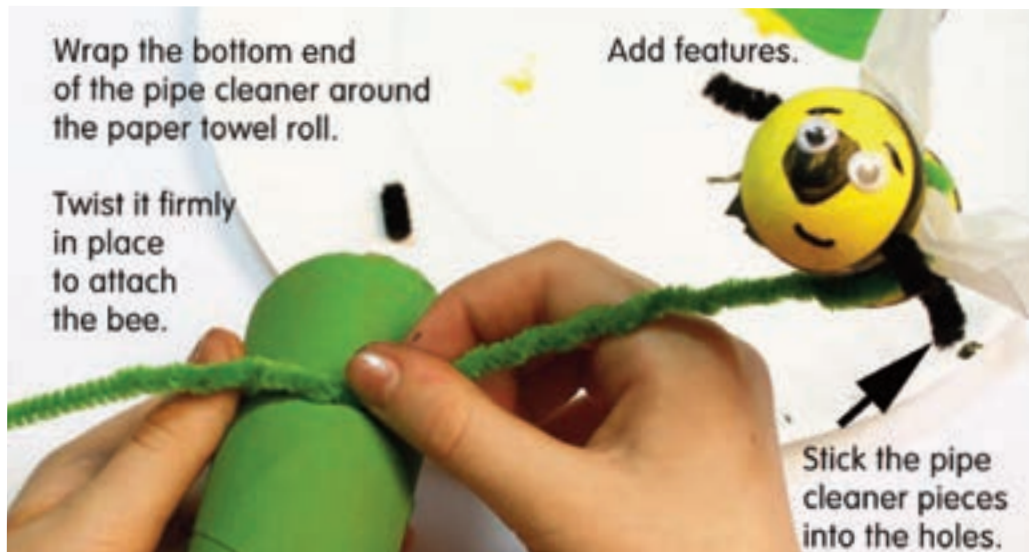
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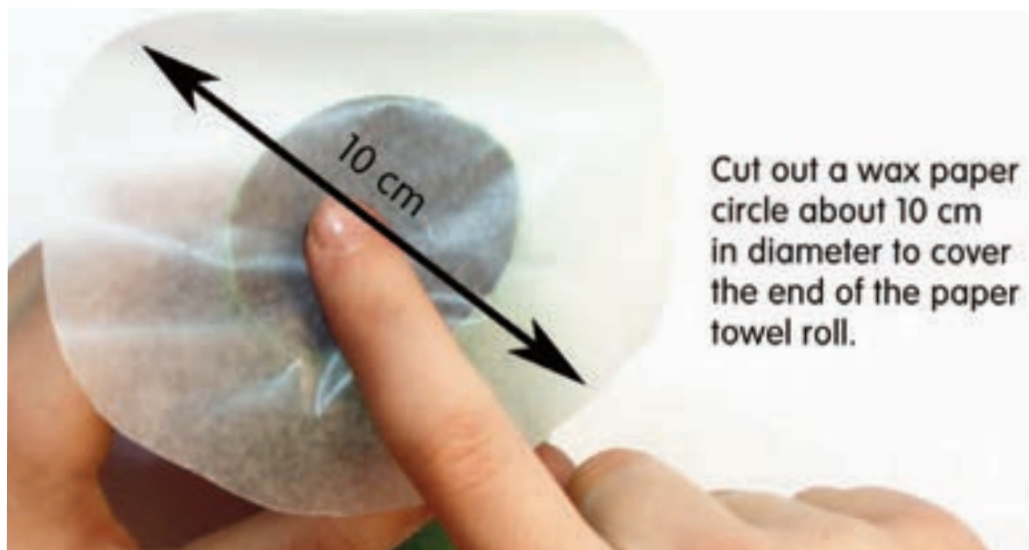
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9

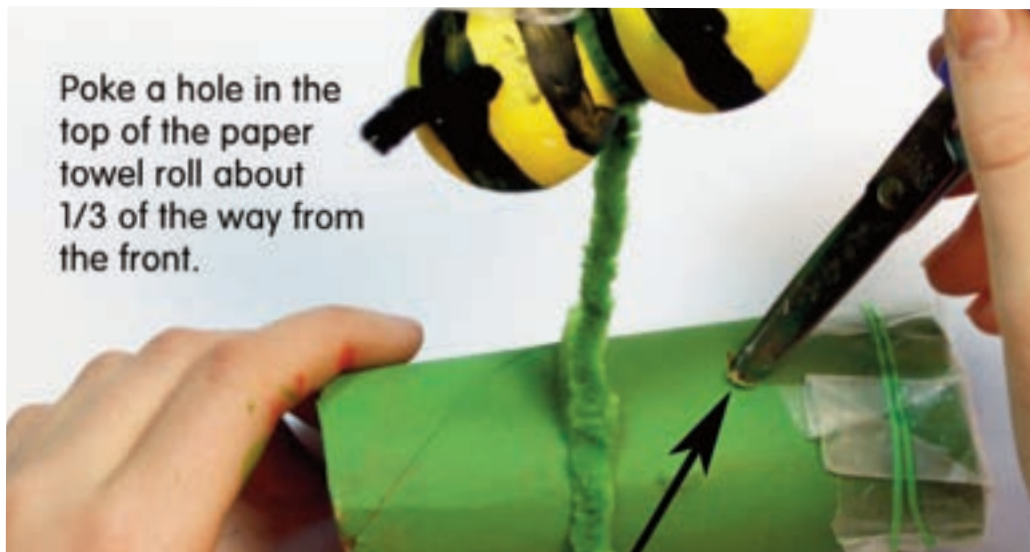


10



11





Do The Bee Waggle Dance!

Bees can't talk like humans, but they have their own way of communicating! When a honey-bee finds flowers with lots of nectar and pollen, she flies back to the hive and does a special **waggle dance** to tell the other bees where to go. Watch the video to view the dance.

[Why do honeybees dance?](#)

SO HOW DOES SHE DO IT ?

1. She waggles her body while moving in a straight line.
2. Then she turns in a circle and repeats the waggle in the same direction.
3. The direction and length of the waggle tell the other bees how far and which way to fly to find the flowers!



It's like a treasure map dance!

Stencil a Pollinator

Did you know that bees do more than just make honey? Bees are very important because they help plants grow, make food, and keep nature healthy. When bees fly from flower to flower to collect nectar, they also move pollen. This process is called pollination, and it helps flowers make seeds and grow new plants. Without bees, many of the fruits and vegetables we eat—like apples, strawberries, and cucumbers—would not grow well. Bees help farmers grow food and keep the environment balanced. That's why we need to protect bees and take care of their homes!



CREATE a stencil print using plastic film and Crayola Broad Line markers. Write about pollination and how bees help plants grow.



PRESENT your work to the class. Hold up your stencil print so everyone can see it clearly. Describe how you chose the details in your design and how you feel about the way your stencil print turned out. Explain why pollinators like bees, butterflies, or birds matter. Speak clearly, smile, and have fun sharing your artwork!



RESPOND to your classmate's artwork. Always say something positive first, for example, describe a detail that you think is especially well done and explain why. Talk about the use of colour and how it affects the message. Ask a question about what they have written. Share what the work reminds you of. Help your classmate feel proud of their work.



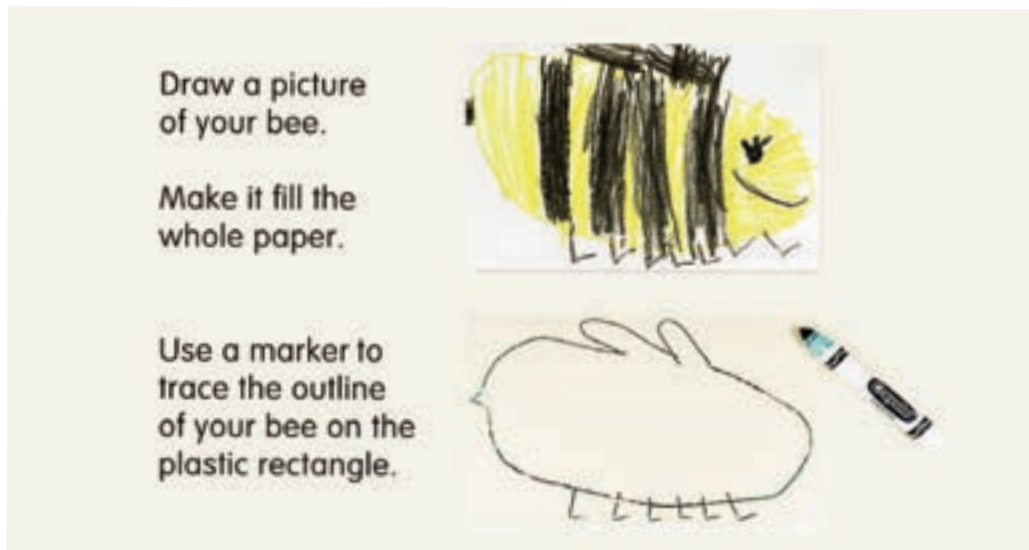
CONNECT making your stencil print and learning about pollinators with other experiences you have had. Think about what you already knew. Have you seen something like this before? What does it remind you of? Was there a time you learned something similar? What did you learn about bees that matters to you? What more do you want to learn?

Stencil a Pollinator

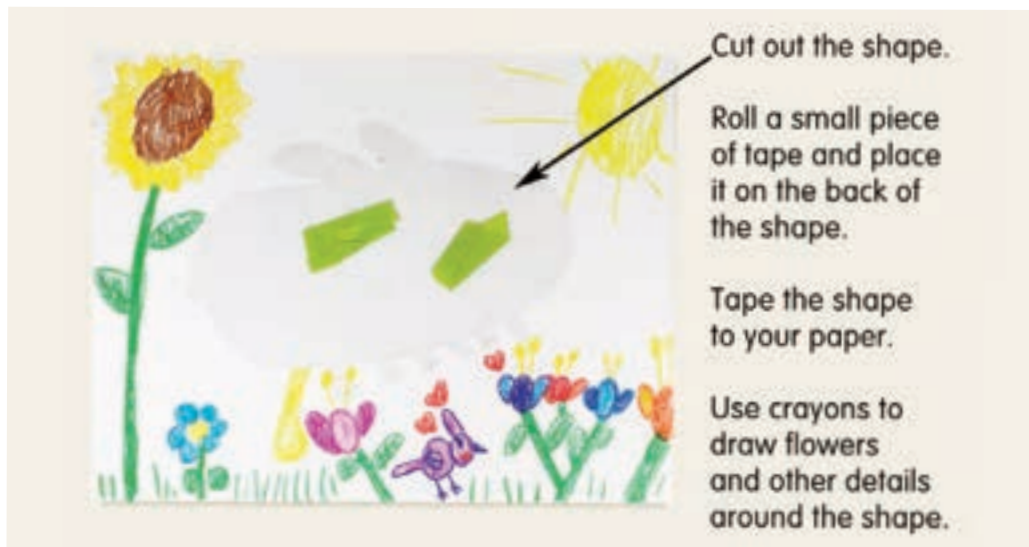
You will need:

- Crayola Broad Line Markers
- Crayola Marker & Watercolour Paper
22.9 cm x 30.5 cm (9" x 12")
- Crayola Scissors
- Crayola Crayons - Regular Not Washable
- Write-On Transparency Film or Plastic File Folders
Cut into Rectangles 14 cm x 21.5 cm (5 ½ " x 8 ½ ")
- Masking Tape
- Small Pieces of Sponge
About 3 cm x 3 cm (1 ¼" x 1 ¼")
- Water Containers
- Paper Towel

1



2



3

Draw some marker along the outer edge of the plastic shape.

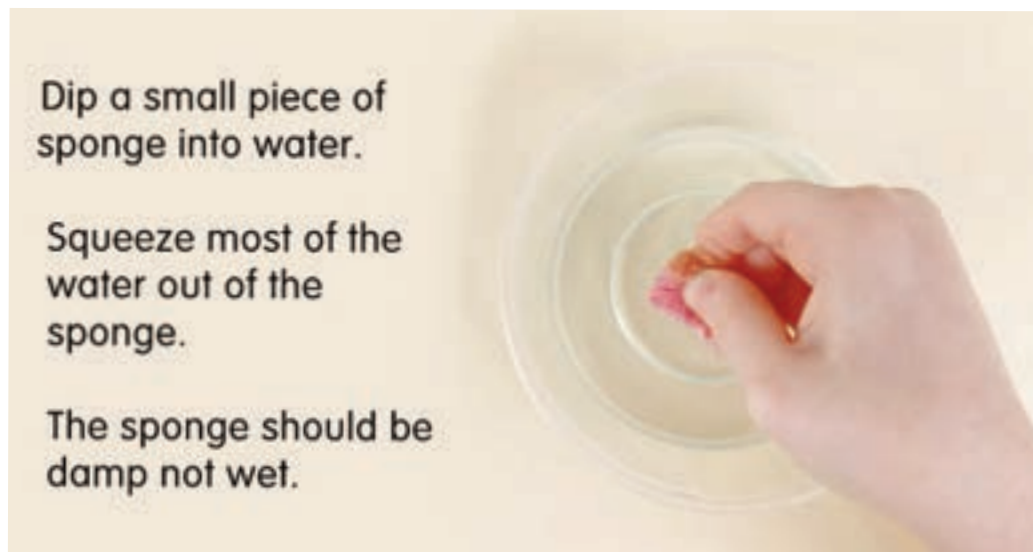


4

Dip a small piece of sponge into water.

Squeeze most of the water out of the sponge.

The sponge should be damp not wet.



5

Drag the wet sponge over the marker ink and onto the crayon design.



6



Continue to add colours until the outer frame is complete.

7



1. Gently remove the plastic from the paper.
2. You have made a stencil print!

8



Write about your pollinator inside the shape.



Etched Bees

Have you ever stopped to watch a bee buzzing from flower to flower? Bees are not only beautiful with their fuzzy bodies and delicate wings, but they also play a very important role in nature. As they collect nectar, they help pollinate plants, which means they help plants grow. Without bees, many of the foods we love wouldn't exist. Bees may be small, but they are powerful helpers for both people and the planet!

Bees are fun to draw because they have so many cool shapes and patterns! Their round, striped bodies and tiny wings make them interesting and easy to create with just a few lines. You can play with different designs, like adding swirly flight paths, zigzag wings, or even a smiling face. Bees also look great with bright colours like yellow, black, and even a little blue or purple for the wings. Plus, drawing bees helps you learn more about how amazing they are in nature – so it's both fun and meaningful!



CREATE a crayon etching of a bee. Use repetition of line and shape to create patterns that suggest the bee's energy. Use contrast to make the bee stand out against the background, and placement of colours, shapes and patterns to move the viewer's eye through the composition.



PRESENT your etching to a small group of your peers. Speak clearly and make eye contact. Hold up your drawing or place it somewhere the group can see. Take your time so everyone gets a good look. Talk about what you included in your etching and why. Share something you learned about bees or about art. Say what you found challenging about making the etching and how you solved the challenge. Explain how you feel about your artwork.



RESPOND to your classmate's etching. Take a moment to look at the etching quietly. Mention something specific you see in the artwork and explain why it stands out to you. Talk about how the etching reminds you of something or ask a question. Comment on the craftsmanship and how it contributes to the overall effectiveness of the etching.



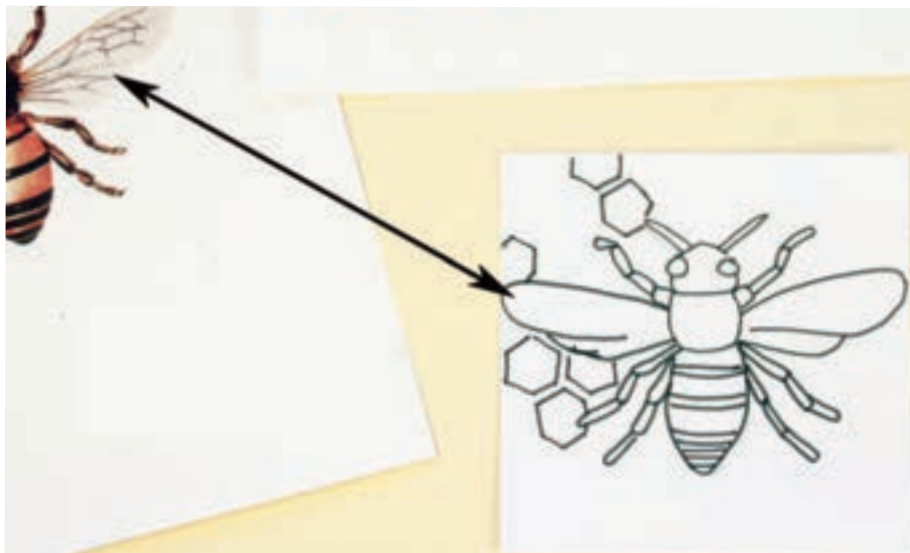
CONNECT making this etching to other creative ways you have used to show ideas and tell stories through art. What does it remind you of? What new art skills did you learn? How can you use those skills in a different way? When you look at your etching how does it reflect the natural world around you?

Etched Bees

You will need:

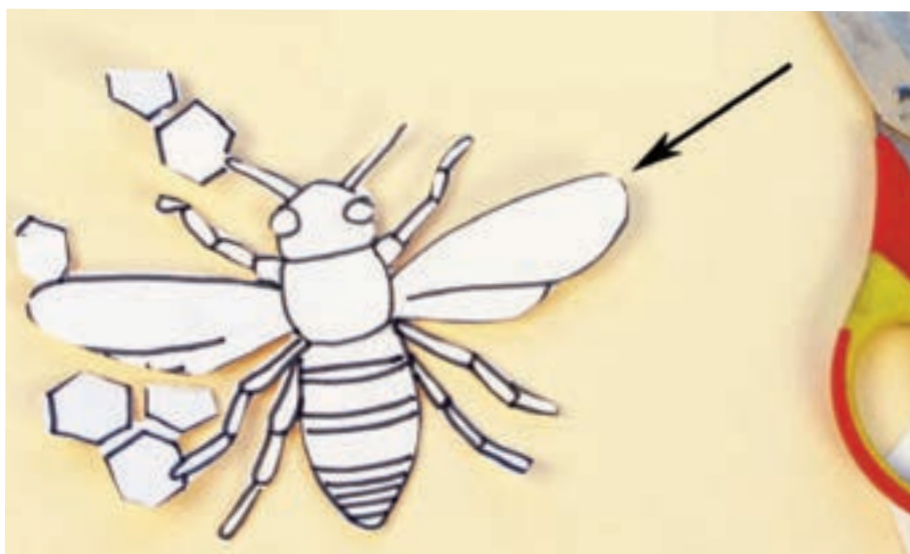
- Crayola Crayons
- 1 Broad Line Marker
- Crayola Scissors
- Toothpicks
- Masking Tape
- Pencils
- Cardstock Paper - 12.7 cm x 12.7 cm (5" x 5") - 2 per student

1



1. Collect pictures of the insect you are going to draw.
2. Draw a picture of the insect on the cardstock paper.
3. Add a few details in the background.

2



1. Cut out the main parts of your drawing.
2. You will use this as a tracer.

3



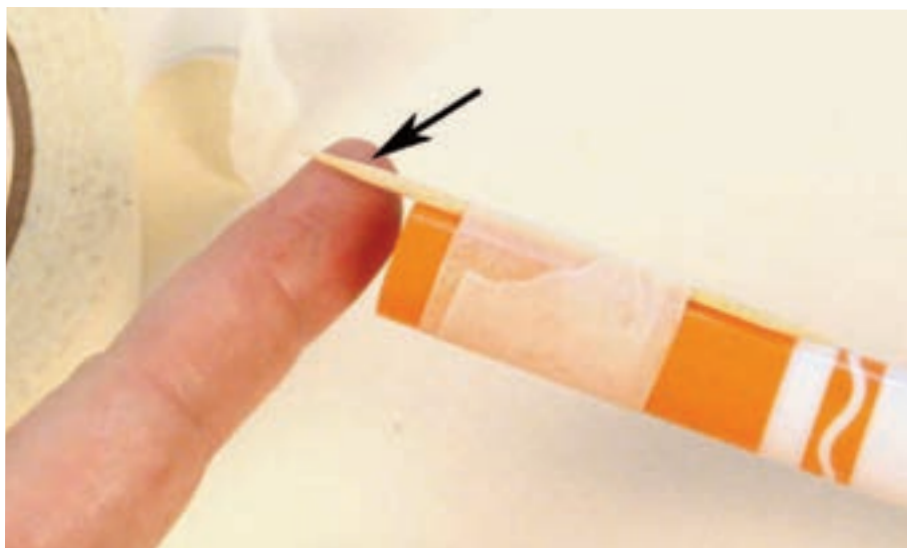
1. Trace the drawing onto a piece of cardstock paper.
2. Colour the entire paper with different colours of crayon.
3. Press hard to cover the paper with a thick layer of wax colour.

4



1. Cover the entire drawing with black crayon.
2. Press hard and colour in different directions.
3. Use a tissue to brush away the small bits of crayon as you work.

5



1. Tape a wooden toothpick to the end of a marker.
2. Leave about 1.5 cm extending past the end of the marker.

6



1. Place the cutout drawing on top of the black crayoned paper.
2. Use the toothpick tool to scratch an outline around the shapes.

7



1. Scratch different patterns into the surface.
2. Use line and shape to create contrast and rhythm.
3. Use a soft tissue to polish the surface.

8



1. View your finished etching with fresh eyes.
2. What do you like best about the etching? Why?



Endangered Bees

Have you ever thought about how important bees are to our world? Bees help pollinate plants. Without bees, we wouldn't have many of the foods we eat every day. But bees are in danger! Pesticides and diseases are making it hard for bees to stay healthy.

We can all help protect the bees! One way is by planting flowers that bees love, like sunflowers, lavender, and wildflowers. These give bees food and safe places to land. We can also avoid using harmful chemicals in our gardens. You don't have to be a grown-up to make change. When kids use their voices and creativity, they can inspire others and help make the world a kinder, healthier place for everyone. Even small actions, like learning about bees and teaching others, can make a big difference! View the [World Without Bees](#) video to learn more.



CREATE a tunnel book that will raise awareness and persuade people to take action for endangered bees. Research why bees are important and why they're endangered. Use your art to communicate ideas based on your research. Give your tunnel book a title.



PRESENT your work to the class. Take your time. Make sure everyone can see your tunnel book easily. Introduce the title of your tunnel book and describe the main message or theme you chose. Explain what is happening in each layer. Share why you chose images, colours and words. Tell about something you learned and want others to know. Finish with a message for your peers.



RESPOND to the your peer's work with respect. Look at it carefully taking note of the creative design, use of colour, specific details and message. Make a positive comment about one of these areas. Ask a question you are curious about, for example, how they came up with their message. If you have an idea about the work make your suggestion in a kind and helpful way.



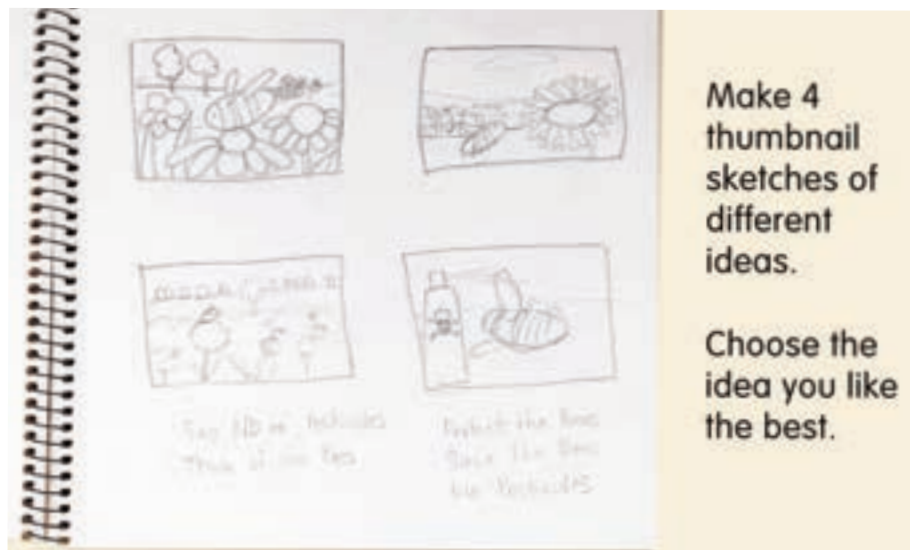
CONNECT your tunnel book to your own life. How does the design you created connect to something in your life? What does it remind you of? How did something you learned in school connect to the details you drew in each layer? What more did you learn about bees? How does your artwork connect to the world around you? How does your tunnel book spread awareness? What do you want people to know?

Endangered Bees – Tunnel Book

You will need:

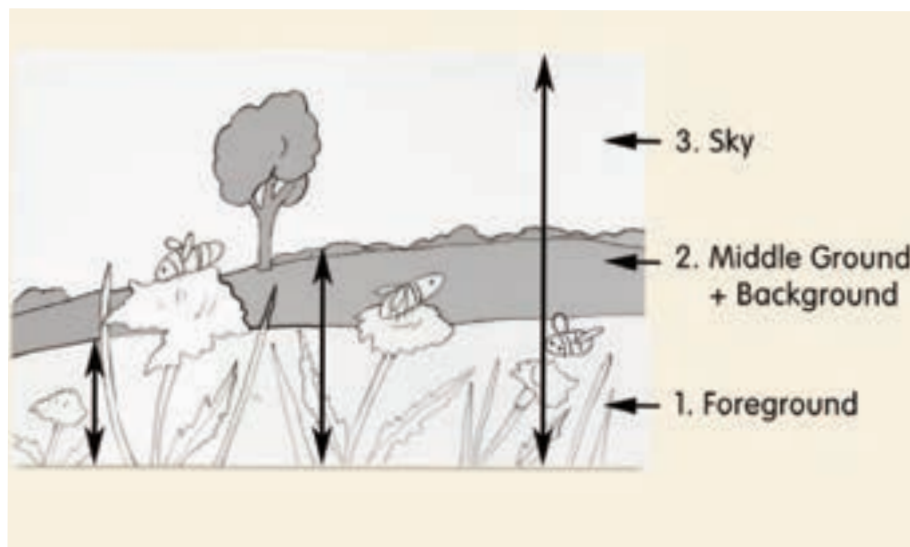
- Crayola Watercolour Paints
- Crayola Paintbrushes
- Rulers & Pencils
- Crayola Scissors
- Crayola Coloured Pencils
- Water Containers
- Crayola Washable Glue Sticks
- Cardstock Paper - 3 pieces
22 cm x 28 cm (8 ½" x 11")
- Paper Towels

1



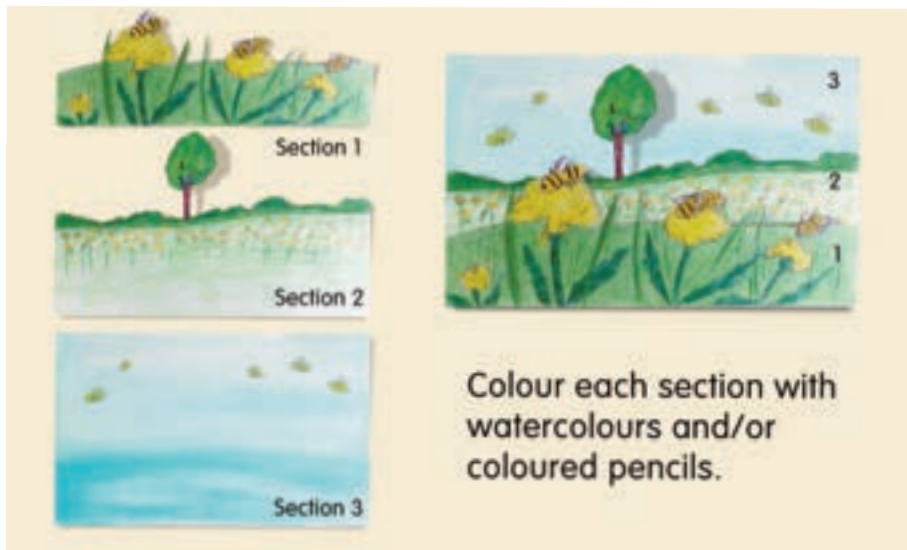
1. Summarize your research about endangered pollinators.
2. Decide on what message you want to communicate.
3. Brainstorm ideas in your sketchbook.

2



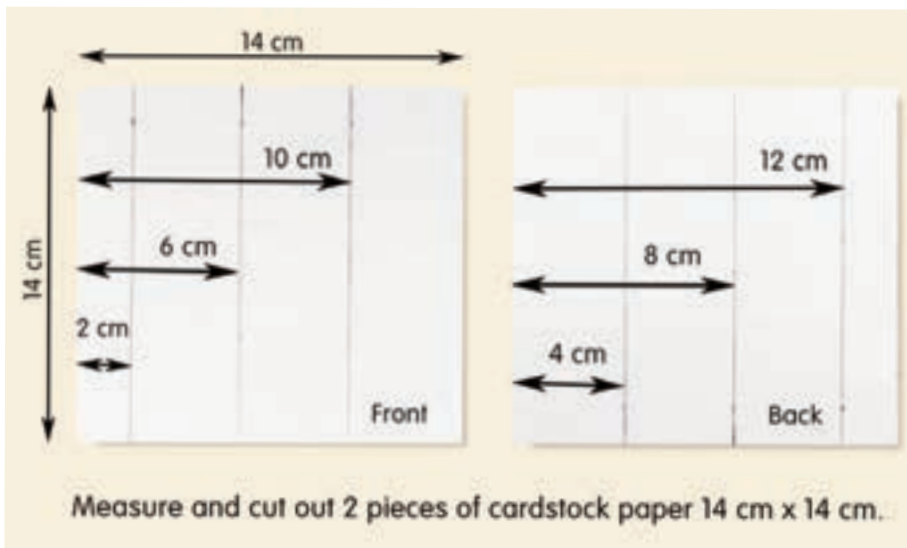
1. Make a plan drawing the same size as your finished tunnel book.
2. Divide it into 3 sections.
3. Trace each section onto a piece of cardstock paper.

3



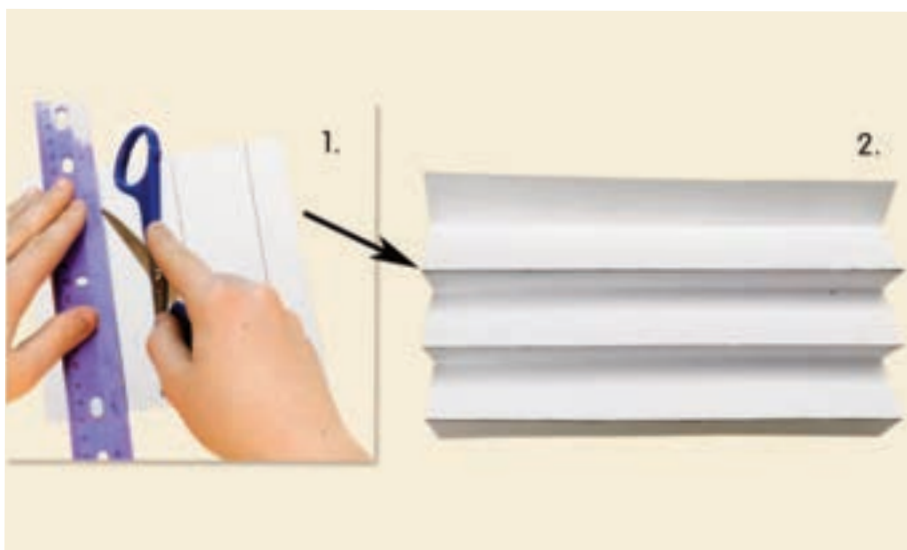
1. Colour each section.
2. Cut out sections 1 and 2.
3. Place the sections in order to see how they line up.
4. Add details and contrast if needed.

4



1. Measure intervals as shown on the front and back of the paper.
2. Draw lines parallel to the **left** side of the paper at each interval.
3. Repeat for the 2nd piece of paper.

5



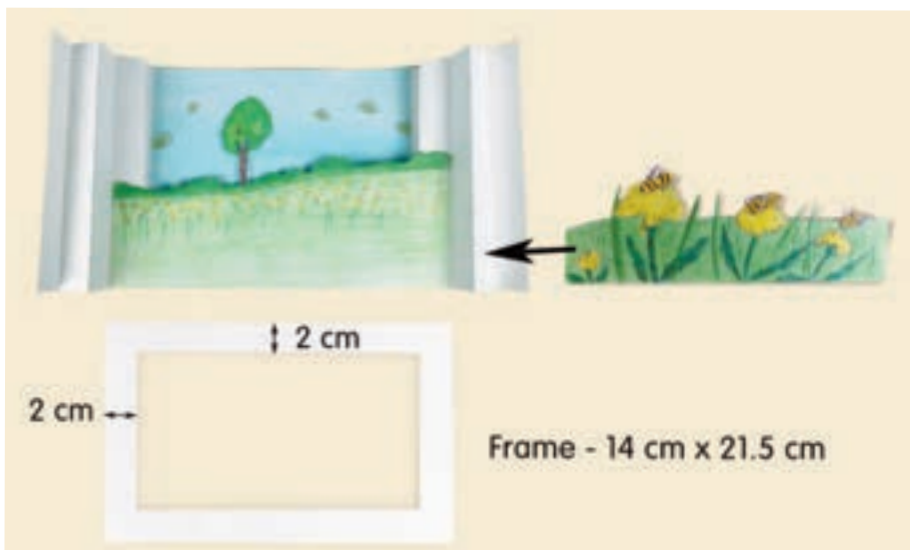
1. Use the tip of a scissors to lightly score along the lines on both sides of the paper.
2. Accordion fold the paper on the scored lines.

6



1. Glue the accordion folded paper to each side of the Section 3 paper – the sky.

7



1. Glue each layer to the folds on the sides.
2. Cut an opening in a 14 cm x 21.5 cm piece of cardstock paper to make a frame with a border that is 2 cm wide on all sides.

8



1. Colour the folds to match the rest of the scene.
2. Colour the frame and glue it to the folds at the side.
3. View your tunnel book with fresh eyes.

Taking Action for Endangered Pollinators



Students at École Secondaire Catholique Le Relais – Alexandria, Ontario

A group of students got together and decided to create a pollinator-friendly garden at their school. They researched native plants that support bees and butterflies and worked together to plant them, creating a habitat that helps local pollinators thrive.

Why Are Pollinators Endangered?

Pesticides & Chemicals

Spraying farms and gardens with chemicals to kill bugs can also hurt bees, butterflies, and other helpful pollinators.

Climate Change

Weather is changing. Flowers might bloom too early or too late. Pollinators can't find food when they need it.

Invasive Species & Diseases

Some pollinators get sick from new pests or diseases that have been brought from other places.

Loss of Habitat

Pollinators need flowers, trees, and wild spaces to live. When land is cleared for houses, roads, or farms, they lose their homes.

Lack of Food

When people plant lawns or only grow one type of crop, there aren't enough flowers for pollinators to eat from all year long.



What Does It Mean to Take Action for Endangered Pollinators?

Pollinators are animals like bees, butterflies, and hummingbirds that help plants grow, breed, and produce food. Some pollinators are endangered, which means they are in danger of disappearing forever.

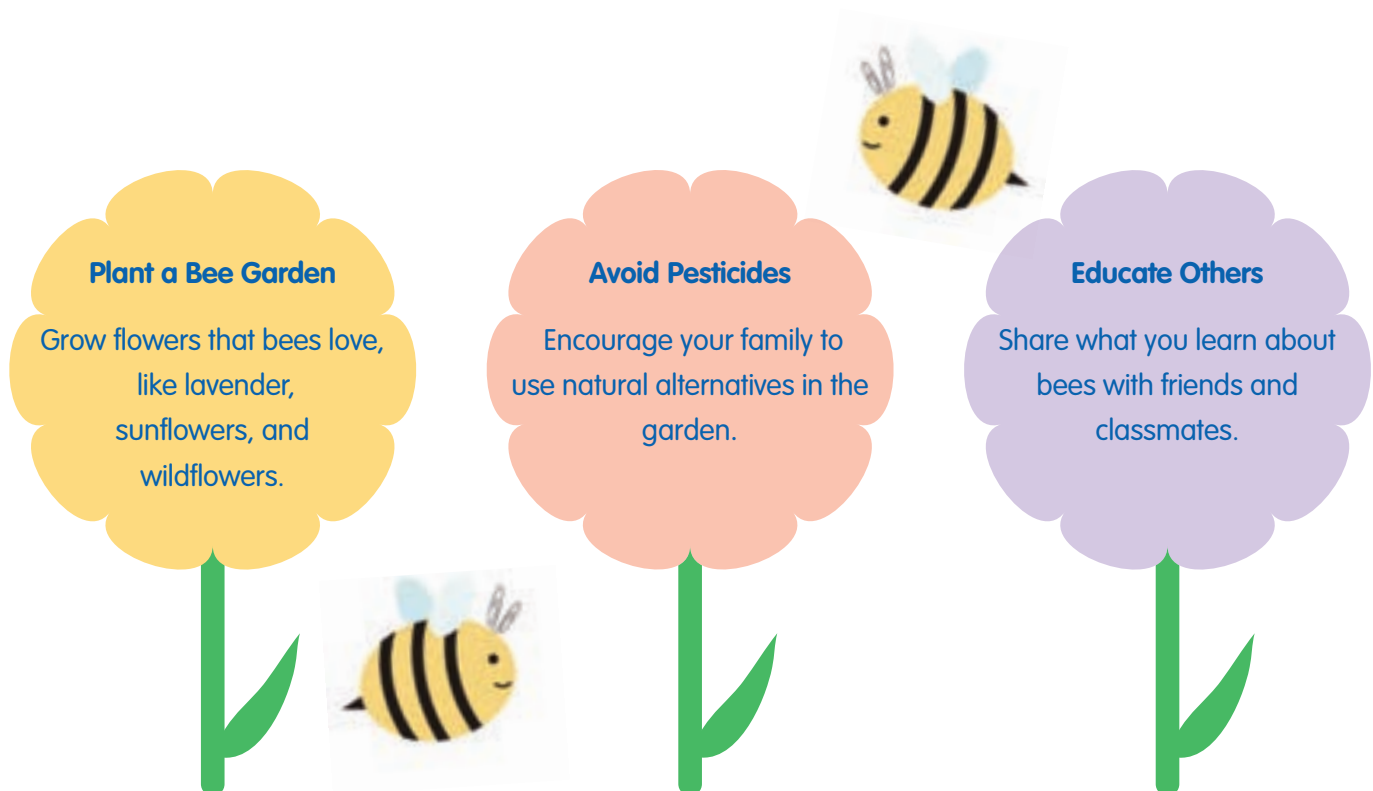
Students taking action – student activism, is when kids and teens speak up, take action, or work together to make the world a better place. It can be about helping people, protecting animals, saving the environment, or standing up for what they believe is right.

Why is it important?

Student activists show that even kids can make a big difference! They help others see that everyone has a voice – no matter their age.

How You Can Take Action for Bees

Even if there aren't many stories in the news, many Canadian kids **are** making a difference in their communities. Here are some ways you can help protect bees:

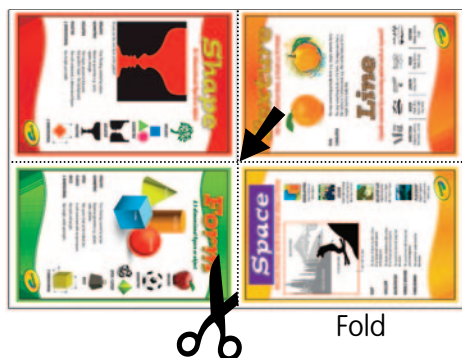


Elements of Art Booklet

Trim the paper along the lines at the outer edges. This will ensure the pages of the booklet line up properly.



1. Fold the paper in half and in half again, short end to short end. Open it up and fold it in half long end to long end. Open the paper. There should be 8 boxes.



3. Hold the edges. Cut from the FOLD side along the horizontal crease. Stop at the intersection of the vertical crease. Open the paper.



5. Flatten the paper.



2. Fold the paper in half short end to short end.



4. Fold the paper in half long end to long end. Hold the edges of the paper and push towards the centre until you see a box formed. Keep pushing until all the pages line up.



6. Fold it in half to create the booklet. Design a cover for your booklet.

3.3-dimensional figure or object



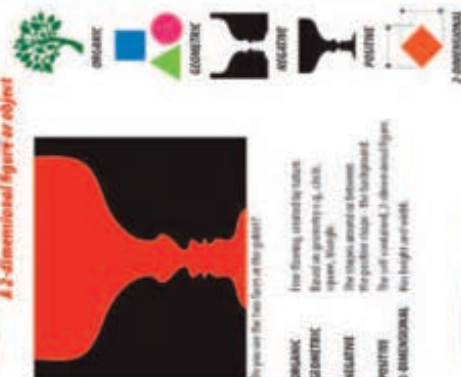
The area around, inside or between shapes or figures



SEAP	No doubt it's especially relevant for the tropical and island developing countries.
SEAL/ISS	No doubt it's relevant for the entire world. It's important to keep in mind that the goal of the work is to help the least developed.
WALCH/BOOP	
WORLD/GRAND	The secret is to work with the tropical and the developing.
WORLD/LEONARD	Because the secret is to be

RECURRING ISSUE
 (After a long time, it's time to revisit the classic sci-fi novel *Blade Runner*.)

4.2-dimensional figure or object



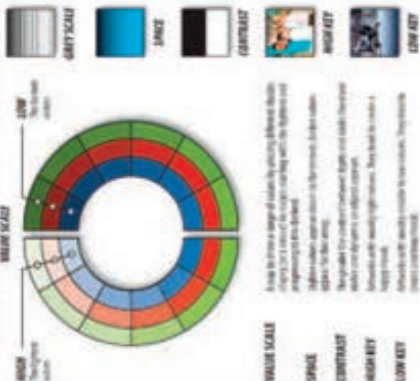
The way a surface feels, or looks as if it feels



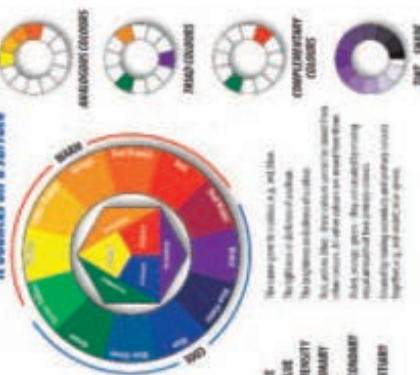
REMARKS:
The only something actually true, e.g. people cannot live
The only something false, e.g. I fly. The expression that a
For numbers it's dimensional, e.g. the other birds in this
length, but it is not that.

[illegible]

Lightness or darkness in colour or an artwork



A wavelength of light seen by the eye when it bounces off a surface



Texture

CONTRAST

The juxtaposition of related and significantly different elements.

- LINE:** thick vs thin
- SHAPE:** geometric vs. organic
- TEXTURE:** rough vs. smooth

PROPORTION

The spatial relationship of one object to another or to the whole.

- EXAGGERATED/DISTORTED PROPORTION:** intentionally changing proportions to communicate a specific message

REPETITION

The repeated use of similar elements.

- LIMITED:** 1 or 2 repeated elements creates a visual echo
- NOTE:** a distinctive unit in a series of elements is a specific shape
- PATTERN:** recurring motifs, predictable way

MOVEMENT

The arrangement of elements so that they lead the eye throughout an artwork.

- DIRECTIONAL:** lines move the eye to an element
- SHAPES:** dominant shapes are objects to another
- EDGES:** fuzzy edges are objects to another being in motion

RHYTHM

The repeated use of similar elements, but with variations, to create a sense of movement.

- RANDOM:** repetition of motif in no obvious order
- ALTERNATING:** placement of motifs in a predictable way
- PROGRESSIVE:** motif has gradual change over time

PRINCIPLES OF DESIGN

VARIETY

The use of similar and different elements in an artwork.

- OPPOSITION:** objects seen, point of view, angles altered
- CHANGE:** objects seen, point of view, angles altered
- ELABORATION:** intricate details with simplicity

EMPHASIS

Highlighting part of an artwork to draw attention to it.

- CONVERGENCE:** elements pointing toward the focal point
- LOCATION:** elements close to the focal point
- ISOLATION:** element placed off the focal point

BALANCE

The arrangement of elements so that they seem equal in weight or appearance.

- SYMMETRY:** one side is the mirror image of the other
- ASYMMETRY:** two sides are not equal in weight
- RADIAL:** elements are evenly arranged around a central point

UNITY

The arrangement of elements in such a way as to highlight their similarities.

- REPETITION:** similar elements are repeated
- PROXIMITY:** elements placed close together, limiting the negative space
- CONTINUATION:** elements that continue a line or edge

HARMONY

The arrangement of elements so they work together as a whole.

- TOPE:** limited colour palette, elements to work together
- SHAPES:** shapes work together to tell a story
- LINE:** help create a sense of movement between elements