CANADA
4-H Ontario

4-H Ontario SUMMER SURVIVAL GUIDE 2021

Games & Activities
FOR RAINY DAY FUN

Science Experiments
KEEP LEARNING ALL SUMMER!

15 Recipes
YOU CAN MAKE AT HOME!

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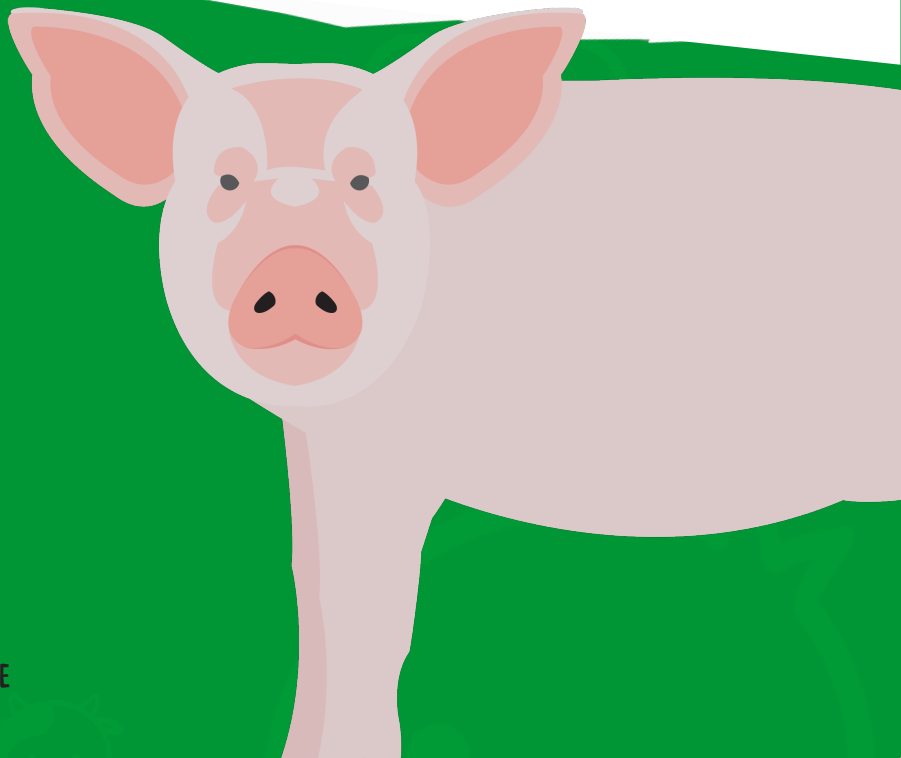

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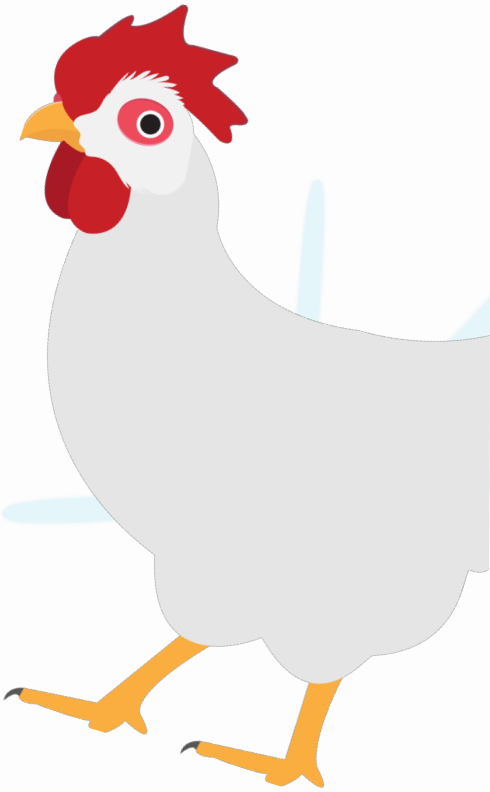
Make it Yourself RECIPES

What do you get when you cross a cow and a chicken?



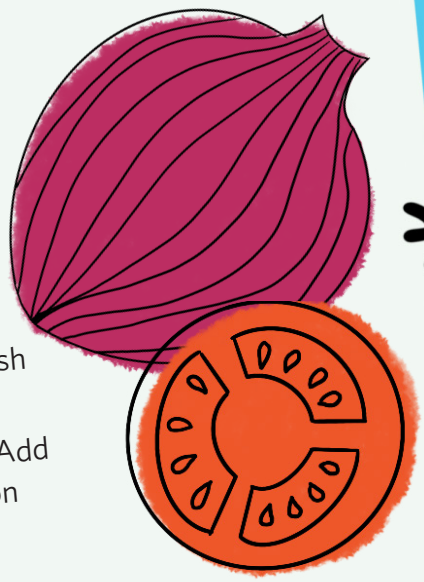
Roost beef!

HOMEMADE GUACAMOLE

Recipe from the 4-H Foods Project

INGREDIENTS

- 2 ripe avocados
- 2-3 garlic cloves, crushed
- 1/2 lemon, squeezed
- 1 small onion, chopped
- 1/2 tomato, chopped



DIRECTIONS

1. Cut the avocados in half, pop out the pit and scoop out the flesh with a spoon into a bowl.
2. Crush the garlic with a knife and combine with the avocado. Add lemon juice. Mash the mixture together until smooth. Add onion and tomato and stir.
3. Refrigerate for at least 1 hour before serving.

Make Your Own TACO SALAD

Recipe from the **All Manner of Red Meat Project**

INGREDIENTS

- 450g (1 pound) ground beef
- 1 pkg. taco seasoning
- 1 cup (250mL) Thousand Island dressing
- 200g bag taco chips
- 1 onion, diced
- 1 head of lettuce, torn
- 1 green pepper, diced
- Shredded cheese (optional)

EQUIPMENT

- Frying pan
- Chopping knives
- Cutting boards
- Wooden spoons for mixing
- Large serving bowl
- Serving spoons
- Eating bowls and utensils

DIRECTIONS

1. Wash hands.
2. Assemble all ingredients and equipment.
3. Mix taco seasoning according to package directions.
4. Cook the ground beef in the frying pan, drain well. Mix in taco seasoning and cook. Let cool.
5. Cut up tomatoes, onion and the head of lettuce. Put these together into large serving bowl.
6. When ground beef is cool, add to the vegetable mixture.
7. Crush taco chips and add to the beef and vegetable mix.
8. Add the salad dressing right before serving.

TIME: 20 Minutes
YIELD: 6-8 Servings

Make Your Own HOT, HOT, HOT (OR NOT, NOT, NOT) SALSA

Recipe from the 4-H Foods Project

INGREDIENTS

- 1 tomato
- 1/6 green pepper
- 1 Tbsp (15 mL) onion
- 1 tsp (5 mL) garlic, minced
- 1 tsp (5 mL) tomato paste
- Pinch of dried jalapeno peppers (optional)

DIRECTIONS

1. Wash vegetables.
2. Chop tomato, green pepper and onion into tiny pieces.
3. Mince garlic using a butter knife.
4. Combine all ingredients in a bowl.
5. Add tomato paste and dried jalapeno peppers (optional).
6. Mix together.
7. Enjoy!

Recipe from the 4-H Foods Project

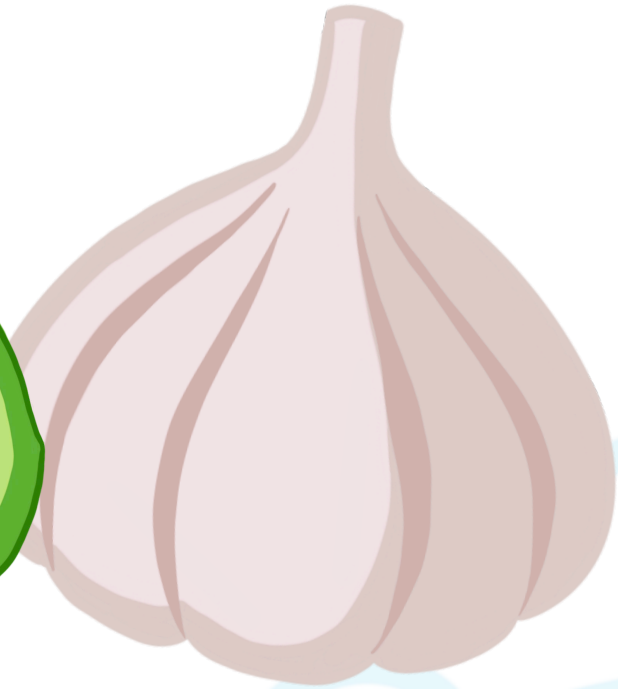
Make Your Own TZATZIKI

INGREDIENTS

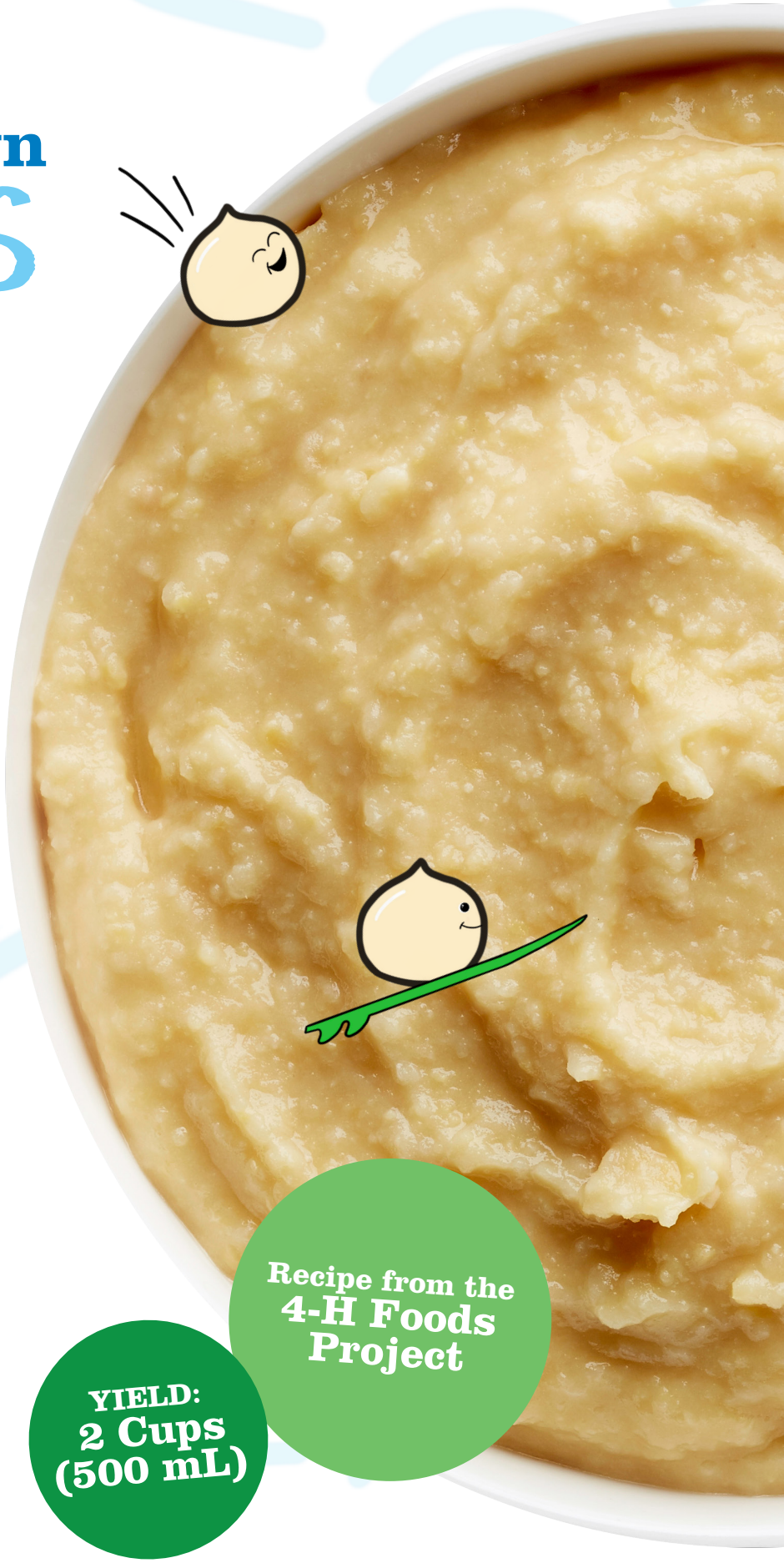
- 1 cup (250 mL) plain yogurt
- 3/4 cup (180 mL) cucumber, peeled, seeded and finely chopped
- 1 Tbsp (15 mL) fresh or dried dill, chopped
- 1 garlic clove, minced
- Tip: substitute 1 tsp (5 mL) dried dill for fresh

DIRECTIONS

1. In a small bowl, combine all ingredients.
2. Add salt for taste, if desired.
3. Cover and refrigerate for at least 1 hour.



Make Your Own HUMMUS



INGREDIENTS

- 1 can (15 to 16 ounces) chickpeas, drained and liquid reserved
- 1/2 can sesame seeds
- 1 garlic clove, cut in half
- 2 tbsp (45 mL) lemon juice
- 1 tsp (15 mL) salt
- Pita bread wedges, crackers or raw vegetables if desired

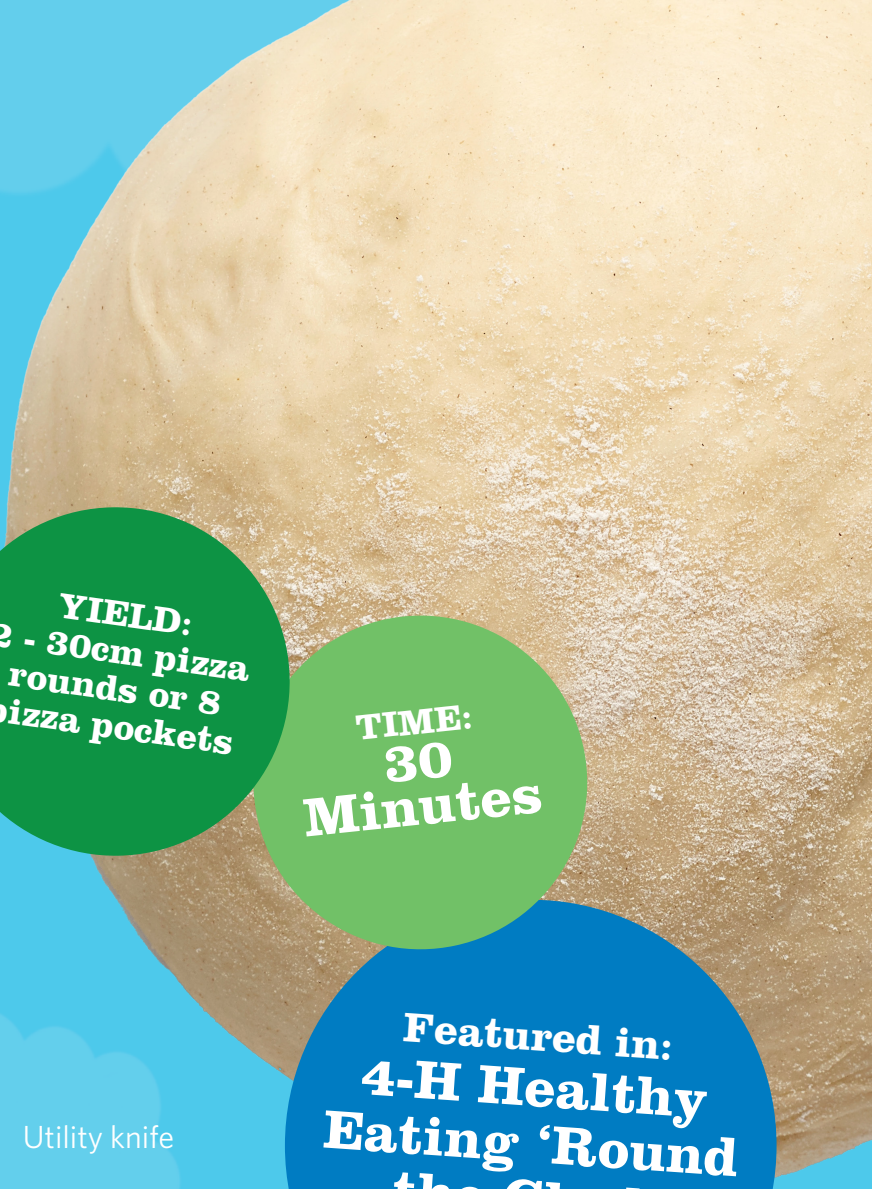
DIRECTIONS

1. Place pea liquid, sesame seeds and garlic all in the blender.
2. Cover and blend on high speed until mixed.
3. Add peas, lemon juice and salt.
4. Cover and blend on high speed, stopping blender to occasionally scrape down the sides.
5. Spoon into serving dish and serve with pita wedges or vegetables.
6. Serve this Middle Eastern favourite as a dip, spread, sandwich filling or as a salad.

Recipe from the 4-H Foods Project

YIELD: 2 Cups (500 mL)

Make Your Own PIZZA CRUST



YIELD:
2 - 30cm pizza rounds or 8 pizza pockets

TIME:
30 Minutes

Featured in:
4-H Healthy Eating 'Round the Clock Project

INGREDIENTS

- 2 cups (500 mL) all purpose flour
- 1/4 cup (125 mL) whole wheat flour
- 1 tbsp (15 mL) quick rise instant yeast
- 1 tsp (5 mL) sugar
- 1/2 tsp (2 mL) salt
- 1 cup (250 mL) warm water
- 1 tbsp (15 mL) olive oil

EQUIPMENT

- Large bowl
- Dry measures
- Small measures
- Wooden spoon
- Liquid measure
- Rubber scraper
- Utility knife

DIRECTIONS

1. Assemble all ingredients and equipment.
2. Combine the flours, yeast, sugar and salt in the large bowl.
3. Combine the water and the oil. Stir it into the dry ingredients until well blended.
4. Turn the dough onto a lightly floured surface. Knead for 8-10 minutes or until smooth and elastic. Add more flour only as needed to prevent the dough from sticking. Turn the bowl over the dough and let it rest for 10 minutes.
5. Divide the dough into two large rounds or eight small ones for pizza pockets.

Food Processor Method:
In food processor combine flours, yeast, sugar and salt. Process for 5-10 seconds until combined. Combine the warm water and oil in a liquid measure. With machine running, pour through the feed tube, processing for 60-90 seconds. Turn dough onto lightly floured work surface. Knead in more flour, if necessary, to form a smooth ball. Cover and let rest for 10 minutes before shaping into either large or small rounds.

Make Your Own VEGGIE PIZZA

TIME:
40 Minutes
YIELD:
12-16
Servings

Recipe from the
4-H Ontario
Pizza Project

INGREDIENTS

- 1 can of crescent roll dough
- Cooking spray
- 250g (1 pkg.) cream cheese, softened
- 2 tbsp (30 mL) mayonnaise
- 1/3 cup (75 mL) each of a variety of vegetables (e.g. cucumber, celery, carrots, peppers, onion, broccoli, etc.) finely chopped
- 1 cup (250 mL) cheddar cheese, finely grated

EQUIPMENT

- Baking sheet
- Mixing bowl
- Mixing spoon
- Spatula
- Cutting board
- Knife
- Cheese grater
- Dry measures
- Pizza cutter

DIRECTIONS

1. Read the recipe and understand what you will be doing.
2. Wash your hands with soap and water. Dry your hands.
3. Preheat oven to 180°C (350°F)
4. Spray a baking sheet with cooking spray.
5. Unroll crescent dough and leave crescents attached. Roll out into a rectangle on the baking sheet. Seal perforations by pinching them together.
6. Bake crescent crust until it is golden brown. Remove from the oven. Cool.
7. In a mixing bowl, combine cream cheese and mayonnaise together to make a smooth spread.
9. Spread cream cheese/mayonnaise together to make a smooth spread. Spread the cream cheese/mayo mixture on the dough.
10. Sprinkle chopped vegetables over the spread.
11. Sprinkle grated cheese on top.
12. Press down lightly on toppings with a fork to press them into the spread.
13. Cut into serving size pieces using a pizza cutter.
14. Enjoy! Remember to refrigerate leftovers.

Make Your Own FROZEN SMOOTHIE POPS

TIME:
2-4 Hours
YIELD:
8-10 Pops

Recipe from the Ontario Milk Makes It Better Project

Smoothies make a fun and nutritious breakfast, snack or dessert!

TRIPLE BERRY

- 1 cup (250 mL) fresh or frozen strawberries
- 1 cup (250mL) fresh or frozen blueberries
- 1 tbsp (15 mL) sugar or liquid honey
- 1 cup (250 mL) milk
- 1/2 cup (125 mL) raspberry yogurt

JUST PEACHY

- 2 cups (500 mL) sliced fresh, drained canned or frozen peaches or apricots
- 2 tbsp (30 mL) liquid honey or sugar
- 1 cup (250 mL) milk
- 1/2 cup (125 mL) peach or vanilla yogurt

BANANA PINEAPPLE

- 1 very ripe banana
- 1 cup (250 mL) frozen or drained canned pineapple chunks
- 1-2 tbsp (15 to 30mL) sugar or liquid honey
- 1 cup (250 mL) milk
- 1/2 cup (125 mL) vanilla or plain yogurt

EQUIPMENT

- Blender or food processor
- Ice-pop moulds or paper cups
- Wooden sticks, straws or plastic spoons
- Liquid measures
- Small measuring spoons

DIRECTIONS

1. Read the recipe and understand what you will be doing.
2. In a blender, combine fruit and honey or sugar (as called for, to taste) and milk. Purée until smooth.
3. Add yogurt and pulse just until combined.
4. Pour into ice-pop moulds and insert sticks, or pour into 1/3 cup (80 mL) paper cups. If using paper cups, freeze until partially firm then insert sticks, straws or plastic spoons.
5. Freeze until solid, for 2 to 4 hours. Will keep for up to 2 weeks.

Make Your Own STRAWBERRY SUNDAE TOPPING

YIELD: 4 Servings

PREP: 3 Minutes
COOK TIME: 3-5 Minutes

Recipe from the Good Foods Fast Project

INGREDIENTS

- 2 cups (500 mL) frozen strawberries, thawed*
- 1/8 cup (25mL) corn starch
- 1/4 cup (50mL) sugar
- 1/4 cup (50mL) water
- 1 tbsp (15mL) lemon juice
- * Raspberries or blueberries could be substituted for the strawberries.

EQUIPMENT

- 2 L microwave safe bowl
- 500 ml liquid measure
- Small measures
- Wooden spoon

DIRECTIONS

1. Assemble all ingredients and equipment.
2. In a 2 L microwave safe bowl, combine cornstarch and sugar.
3. Stir in water and strawberries.
4. Microwave on 100% power for 3-5 minutes, stirring every minute with a wooden spoon until thickened.
5. Add lemon juice and stir.

Make Your Own UNSALTED BUTTER

TIME:
15 Minutes
YIELD:
125 mL

Recipe from the Milk Makes It Better Project

INGREDIENTS

- 1 cup (250 mL) whipping cream, room temperature
- Cold water

EQUIPMENT

- Small bowls
- Sieve
- Egg beater or electric beaters
- Rubber spatula
- Wooden spoon

DIRECTIONS

1. Read the recipe and understand what you will be doing.
2. Pour the cream into a bowl and beat with egg beater.

Keep beating until lumps of fat form.

3. Pour butter and liquid (buttermilk) into sieve. If there is any butter on the beater, scrape it off and place in sieve.
4. Pour cold water over butter to wash off buttermilk.
5. Transfer butter to bowl. Using the back of a wooden spoon, flatten the butter against the side of the bowl. This will remove any trapped buttermilk.
6. Rinse with cold water, mold and chill.
7. To make salted butter, add 0.5mL salt and mix well before molding.

Make Your Own BIRDSEED BARS

YIELD: About 40 Bars

PREP: 15 Minutes
COOK TIME: 15 Minutes

Recipe from the 4-H Healthy Eating 'Round The Clock Project

INGREDIENTS

- 2 cups (500 mL) rolled oats
- 1 cup (250 mL) natural bran
- 1 cup (250 mL) roasted or raw sunflower seeds, unsalted
- 1 cup (250 mL) chopped dried apricots, dates or raisins or a combination of them
- 1/2 cup (125 mL) chopped nuts (walnuts or pecan) (optional)
- 1/4 cup (50 mL) sesame seeds
- 1/3 cup (75 mL) butter or margarine
- 3/4 cup (175 mL) liquid honey
- 1/2 cup (125 mL) lightly packed brown sugar

EQUIPMENT

- 34 x 22 cm baking pan
- Vegetable oil spray to grease the baking pan
- Dry measures
- Large bowl
- Utility knife
- Cutting board
- Small saucepan
- Wooden spoon
- Rubber scraper
- Timer
- Paring knife

DIRECTIONS

1. Read the recipe. Assemble all equipment and ingredients. Preheat oven to 180°C (350°F). Lightly grease the baking dish.

2. Combine rolled oats, bran, sunflower seeds, dried fruit, nuts and sesame seeds in the large bowl.

3. Melt margarine over low heat in the small saucepan. Add honey and sugar. Watching closely, stir and bring mixture to a boil. Reduce heat to low and simmer for 5 minutes. Remove from heat.

4. Stir honey/sugar mixture into dry ingredients. Be very careful handling the hot syrup. Mix until all of the dry ingredients have been moistened.

5. Scrape mixture into lightly greased baking dish and press gently with the back of the spoon.

6. Bake for 15 minutes or until golden.

7. Let cool and cut into bars.

Make Your Own BANANA BERRY WAKE-UP SHAKE

Recipe from the 4-H Foods Project

INGREDIENTS

- 1 banana
- 1 cup (250 mL) fresh, canned or frozen berries (any combination)
- 1 cup (250 mL) milk or vanilla-flavoured soy beverage
- 3/4 cup (175 mL) yogurt (vanilla or other flavour that complements berries)

Tip: frozen sliced bananas work well in these shakes and help make them make them creamy. When bananas start to get brown, pop them in the freezer and take out as needed.

DIRECTIONS

1. In a blender, liquefy fruit with a small amount of the milk.

2. Add remaining milk and yogurt. Blend until smooth. If shake is too thick, add extra milk or soy beverage to achieve desired consistency.

YIELD: 4 Servings

Make Your Own BERRY TASTY MUFFINS

INGREDIENTS

- 1 cup (250mL) flour
- 1 cup (250mL) oatmeal
- 1/4 cup (45mL) sugar
- 1 tsp (5mL salt)
- 1 1/3 tbsp (20mL) baking powder
- 1 cup (250mL) blueberries, washed (or substitute with your favourite berries!)
- 1 egg
- 1 cup (250mL milk)
- 1/4 cup (50mL) vegetable oil
- Non-stick cooking spray

TIME:
40 Minutes
YIELD:
12 Muffins

Recipe from the Milk Makes It Better Project

EQUIPMENT

- Large bowl
- Medium bowl
- Wooden spoon
- Fork
- Spatula
- Muffin cooking tray
- Dry measures
- Liquid measures
- Small measuring spoons

DIRECTIONS

1. Read the recipe and understand what you will be doing.
2. Preheat oven to 200° C (400° F) .
3. In a large bowl, mix together the flour, oatmeal, sugar, salt, and baking powder.
4. Mix in blueberries.
5. In another bowl, break the egg and use a fork to beat it just a little bit. Then add the milk and vegetable oil and mix.
6. Add egg mixture to the dry ingredients in the large bowl.
7. Using a mixing spoon, mix about 25 or 30 times. Don't mix too much! Your muffin mixture should be lumpy, not smooth.
8. Line a muffin tin with paper liners or lightly spray with nonstick spray. Spoon in the muffin mix. Fill each muffin cup about 2/3 of the way up.
9. Bake for approximately 20 minutes.
10. When muffins are finished baking, remove from muffin tin and cool them on a wire rack.

Make Your Own ICE CREAM

TIME:
20-25 Minutes

Featured in:
Cloverbuds Year 2 - Dairy (Milking a Cow Unit)

INGREDIENTS

- 1 tsp (1 mL) vanilla
- 1 tbsp (15 mL) white sugar
- 1/2 cup (125mL) 35% whipping cream (10% table cream or homogenized milk can also be used)
- Ice
- 6 tbsp (90mL) table salt

EQUIPMENT

- Large and small re-sealable bag, OR large and small can

DIRECTIONS

1. Fill the large bag half full of ice. Add the salt and seal the bag.

2. Put the whipping cream, vanilla and sugar into the small bag and seal it. Place the small bag inside the large one and seal again, carefully.

3. Shake the package (or rock back and forth) until the mixture turns into ice cream. This will take about 5 minutes.

4. Wipe off the top of the small bag. Then open it carefully and enjoy!

5. Or, try out this alternate method for making your own homemade ice cream!

6. Place ice/salt into a large can (e.g. large coffee can) and place the small can in the ice inside the large can. Put the lid on the large can tight! 'Kick' the can around the room to shake the mixture inside to make it turn into ice cream.

Make Your Own S'MORES

YIELD: 4 Servings

PREP: 5 Minutes

COOK TIME: 4 Minutes

Making this recipe is a fun way to test for hot spots in your microwave oven. S'mores tend to be sticky and high in sugar, so be sure to brush your teeth after you sample the results!

INGREDIENTS

- 16 marshmallows
- 32 graham crackers
- 16 milk chocolate squares (2 milk chocolate bars)

Recipe from the Good Foods Fast Project

DIRECTIONS

1. Place napkins or paper towels on the floor of the microwave oven.
2. Arrange 16 graham crackers in 4 rows in the oven.
3. Top each cracker with a large marshmallow.
4. Program microwave for 100% power for 1 minute.
5. Watch to see which marshmallows puff up first. (This will indicate where hot spots in your oven are, if any.)
6. Remove crackers as marshmallows puff so they won't burn. Top each with a square of chocolate and another graham cracker.
7. Microwave at 100% power for 10 seconds for each cracker.

Agriculture ACTIVITIES

Activity from 4-H Ontario Rabbit Project

THE ALPHABET CHALLENGE

DIRECTIONS

Write the alphabet on a piece of poster paper. Brainstorm rabbit words that start with each letter. Try to come up with at least one word for each letter of the alphabet.

EXAMPLE:

A – Angora
B – Buck
C – Carrot

Note: this activity could be completed for any type of animal.

Did you know? A rabbit's teeth never stop growing!

THE APPLE TEST

In this activity, you will learn the importance of soil as a limited, natural resource.

MATERIALS NEEDED

- Apple(s)
- One sharp knife (for parent demonstration) or plastic knives (for child participation)
- Cutting board(s)
- Paper towels

DIRECTIONS

1. Pretend that this apple is planet Earth. Notice how its skin hugs and protects the surface. Cut the apple in quarters. Three of the four quarters represent how much of the earth is covered with water - oceans, lakes, rivers, and streams. Set three of the four quarters aside. Do you know what percentage that is?
2. Left is just one quarter (25 percent) representing the portion of our earth that is dry land. Take this quarter and cut it in half. One of these halves represents land that is desert, swamps, polar, or mountainous regions where it is too hot, too cold, or too high for humans to be productive. Set this half aside.
3. The other half (one-eighth or 12.5 percent of the apple) represents where humans can live and grow crops. Slice this section lengthwise into four equal parts. Now you have four 1/32nd (3 percent each) of an apple. The first of these represents land too wet for food production. It isn't swamp land, but it may flood during the growing season. The second section represents land that is too rocky and poor to grow food. The third 1/32nd represents areas that are too hot. Set these three sections aside.
4. The last section (1/32nd or 3 percent of the apple) represents the area of the world developed by humans. Now, carefully peel the last 1/32nd section. This small bit of peel represents the portion of our planet that is soil on which humans depend for food production and similar uses. So, like water and air, soil is a very important and limited natural resource!

Did you know?
1 Tablespoon of soil has more organisms in it than there are people on earth!

Activity from **4-H Ontario Loyal to the Soil - Soil Conservation Project**

Some more food for thought: All living things depend on soil to live. What are some of our important natural resources? (Your answers might include materials such as oil, water, coal, trees, animals, and gold. All of those are important natural resources, but we often forget to mention one of our most important natural resources: soil.)

Create Your Own MARSHMALLOW FARM

Activity from Cloverbuds - Year Two - Real Dirt on Farming Unit

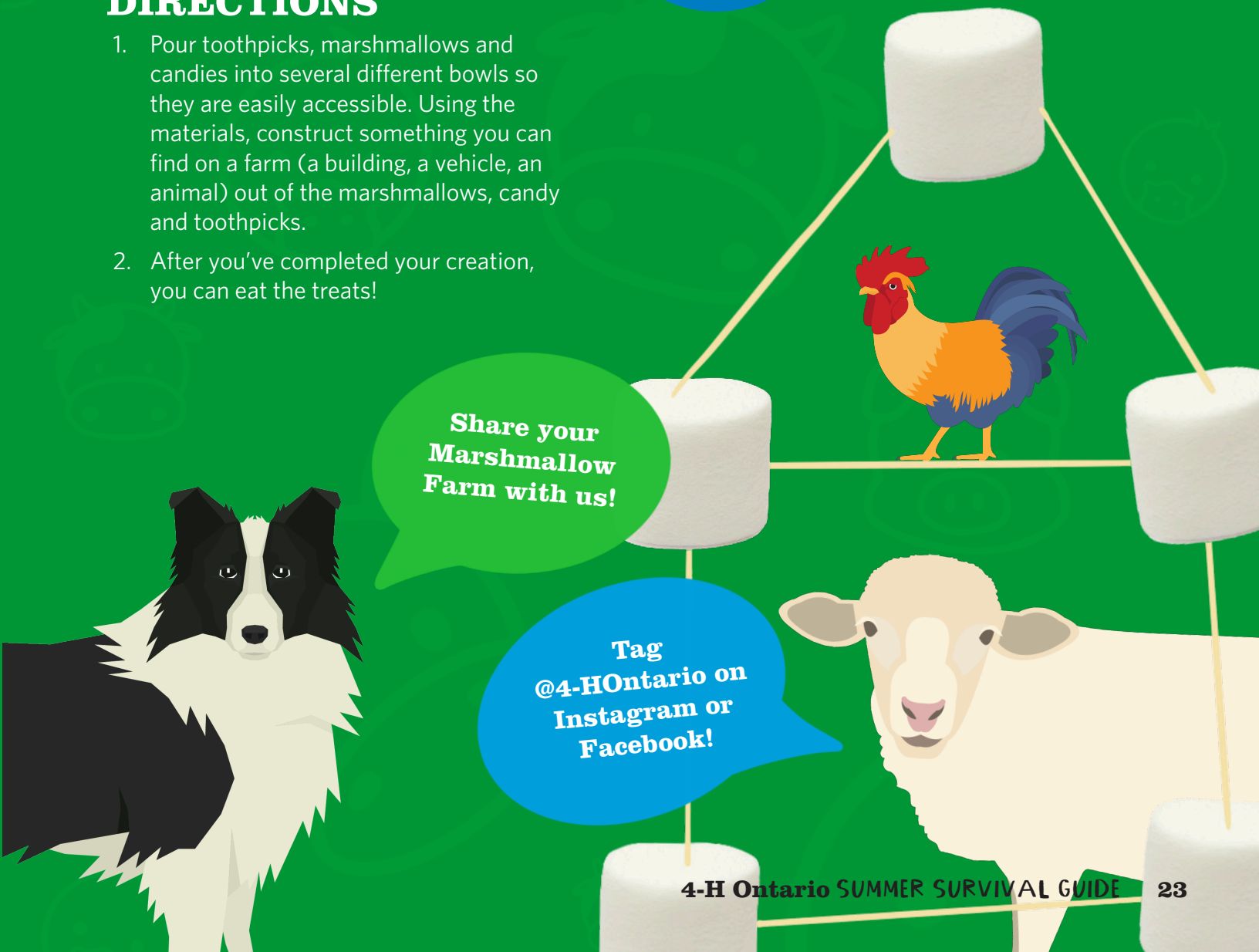
Time: 10-15 Minutes

MATERIALS NEEDED

- Large and mini marshmallows
- Soft gummy candies
- Toothpicks
- Paper plates
- Bowls

DIRECTIONS

1. Pour toothpicks, marshmallows and candies into several different bowls so they are easily accessible. Using the materials, construct something you can find on a farm (a building, a vehicle, an animal) out of the marshmallows, candy and toothpicks.
2. After you've completed your creation, you can eat the treats!



Share your Marshmallow Farm with us!

Tag @4-HOntario on Instagram or Facebook!

Create Your Own PASTA SKELETON

Time: 40 Minutes

Activity from 4-H Ontario Beef Project

MATERIALS

- Pasta – various shapes and sizes
- Hot glue
- Pipecleaners and/or straws
- Googly eyes
- Paper plates
- Adhesive labels
- Other creative resources of your choice

DIRECTIONS

1. Examine skeletal drawings from the meeting, a textbook, the Internet, etc. looking at multiple views .
2. Evaluate the pasta shapes that are available.
3. Construct the frame of the animal making it as lifelike and comprehensive as possible.
4. Label the skeletal structure. Try to label at least 20 different bones.

Create Your Own BUDDING SEEDS

MATERIALS NEEDED

- Plastic baggie
- Seed(s)
- Paper towels
- Water
- Permanent marker
- Tape

DIRECTIONS

1. On the plastic baggie, use a permanent marker to write the type of seed and the date which you planted your seed.
2. Fold your paper towels so that they fit within your plastic baggie.
3. Wet your paper towels.
4. Place your seed(s) in between two layers of paper towels.
5. Tape your plastic baggie up onto the window and watch as your seeds germinate and grow!

Did you know?
The largest seed in the world is the double coconut. It can measure up to 50cm in circumference!

Activity from Cloverbuds At Home 2020

Create Your Own VERY HAIRY CATERPILLAR

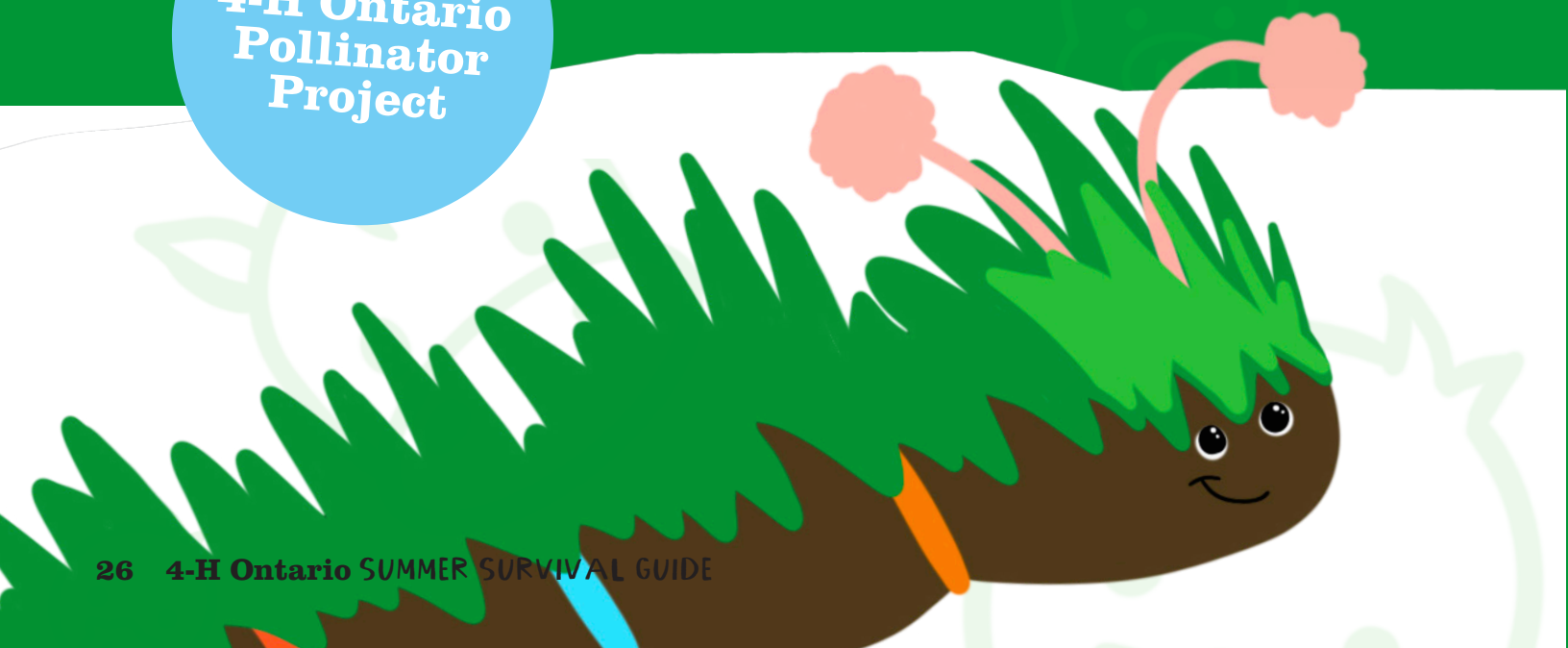
MATERIALS NEEDED

- 4 cups (1000mL) potting soil
- 4 tbsp (60mL) quick-sprouting grass seed (clover works well for pollinators)
- Small yogurt container or paper cup
- Knee-high nylon stocking
- Colourful ponytail holders
- Scissors
- Plastic bag
- Bobby pin
- Goggle eyes
- Pipe cleaner
- Small pom-poms

Activity from **4-H Ontario Pollinator Project**

DIRECTIONS

1. Combine the potting soil and grass seed in a large bowl.
2. Cut the bottom from the a small yogurt container or paper cup for a funnel, then slide a knee-high nylon stocking over it.
3. Pour or spoon 175mL to 250mL (3/4 to 1 cup) of the soil mixture into the stocking. Then, slide a colourful ponytail holder over the end of the stocking to section off the pocket of soil. Repeat this process to make 5 soil filled segments. Tie a knot in the top of the stocking and trim away any excess nylon.
4. Submerge the caterpillar in water for 10 minutes. Then, place it in a plastic bag and let it sit overnight.
5. Remove the bag and loop a semi-straightened bobby pin through the front of the stocking. Then, glue a googly eye onto each end of the pin.
6. For antennae, cut a pipe cleaner in half. Glue a small pom-pom onto one end of each half and stick them in place.
7. Set your caterpillar on a plate by a sunny window or outside and generously water the entire caterpillar every other day. Your caterpillar should sprout hair in about 4 to



GROCERY STORE DETECTIVES

Activity from 4-H Ontario Agricultural Awareness Project

The agri-food industry is a consumer-driven market and supermarkets compete for customers' business, often through low prices. In this activity, you will compare and investigate meat and produce prices advertised in grocery store flyers.

MATERIALS NEEDED

- Grocery store flyers (or look up flyers on the Internet)
- Scissors
- Pens
- Paper
- Map of North America

DIRECTIONS

1. Circle or cut out 2-3 advertisements for different types of products in grocery store flyers.
2. Where do these products come from?
3. Who is involved in getting them to the customer?
4. If possible, locate them on a map.
5. What extra costs do you think might be involved with non-local products?
6. If possible, find out how much a local producer gets paid for the circled product.

Some more food for thought: There is usually a large discrepancy between the price consumers pay for a product and the amount a farmer is paid for that product. We all want to save money at the store, but it is important to remember the farmer at the other end of the agri-food chain. Who sets the prices and what factors contribute to that price?

Create Your Own BIRD SILHOUETTES

Activity from 4-H Ontario Pollinator Project

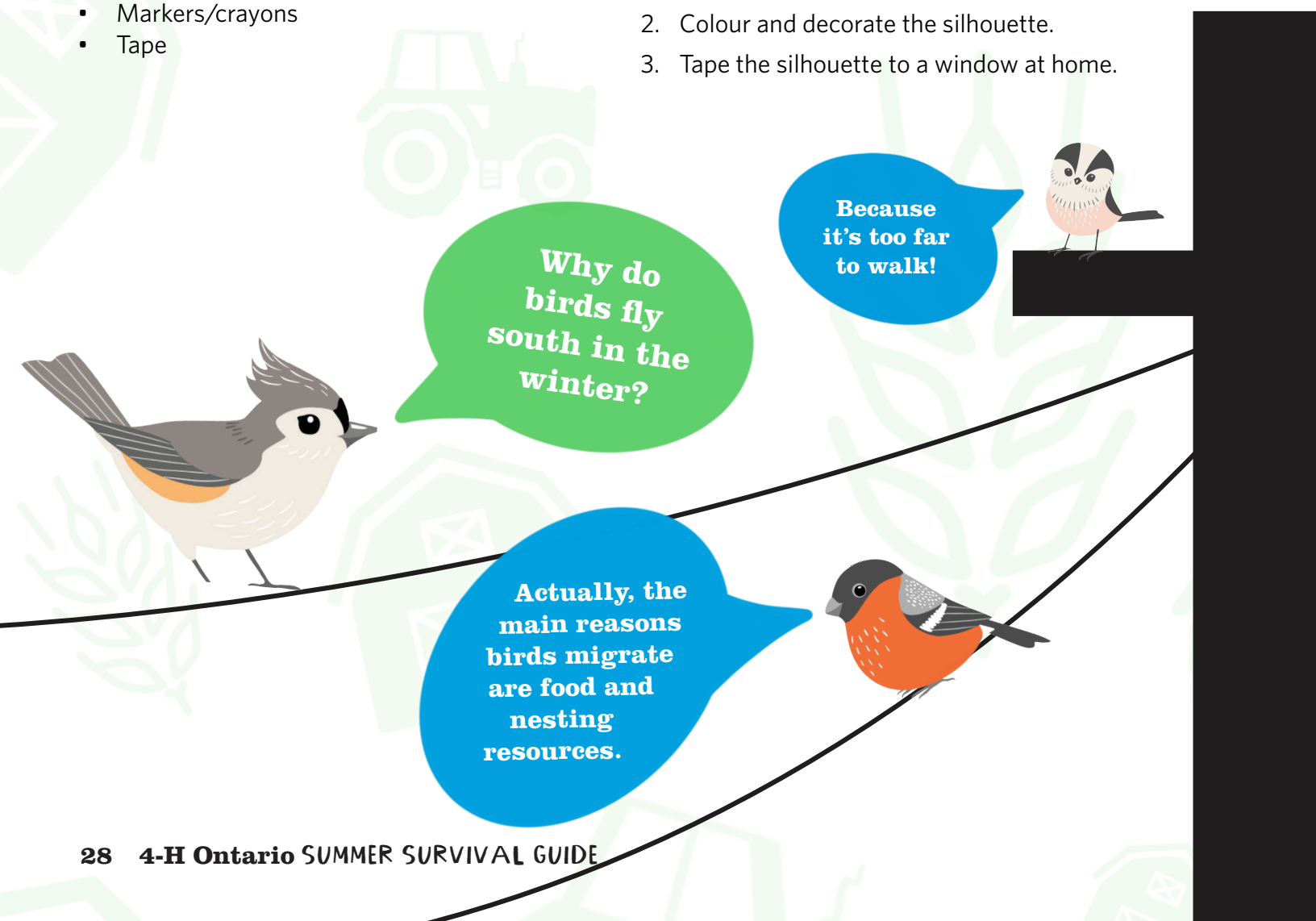
Pollinators are attracted to specific colours and may get confused by man-made objects. When there is a pane of glass in front of them, pollinators see through it and often try to fly right through a window to get to what is behind. Putting something up on a window, such as bird silhouettes, gives birds a signal to avoid it.

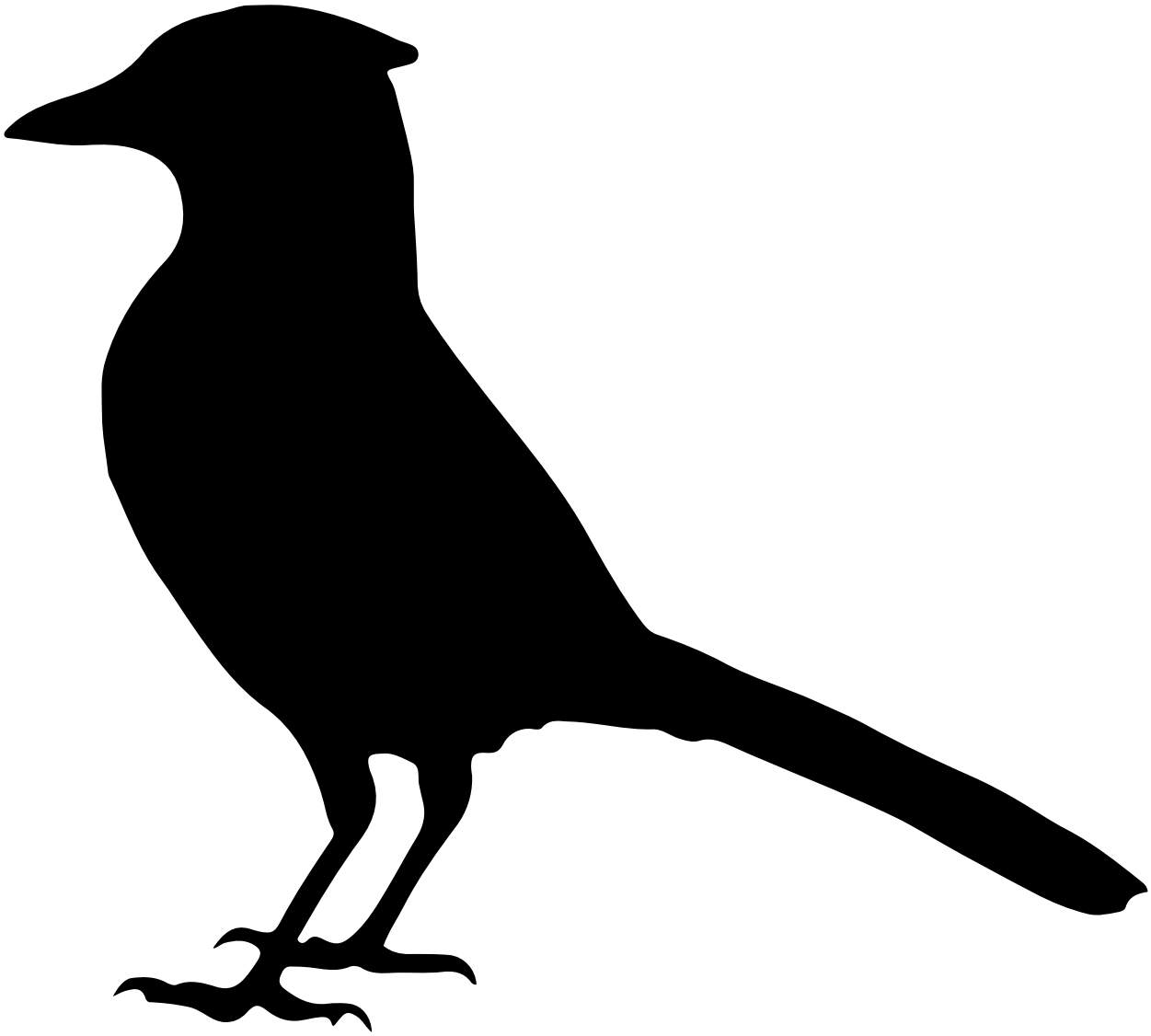
MATERIALS NEEDED

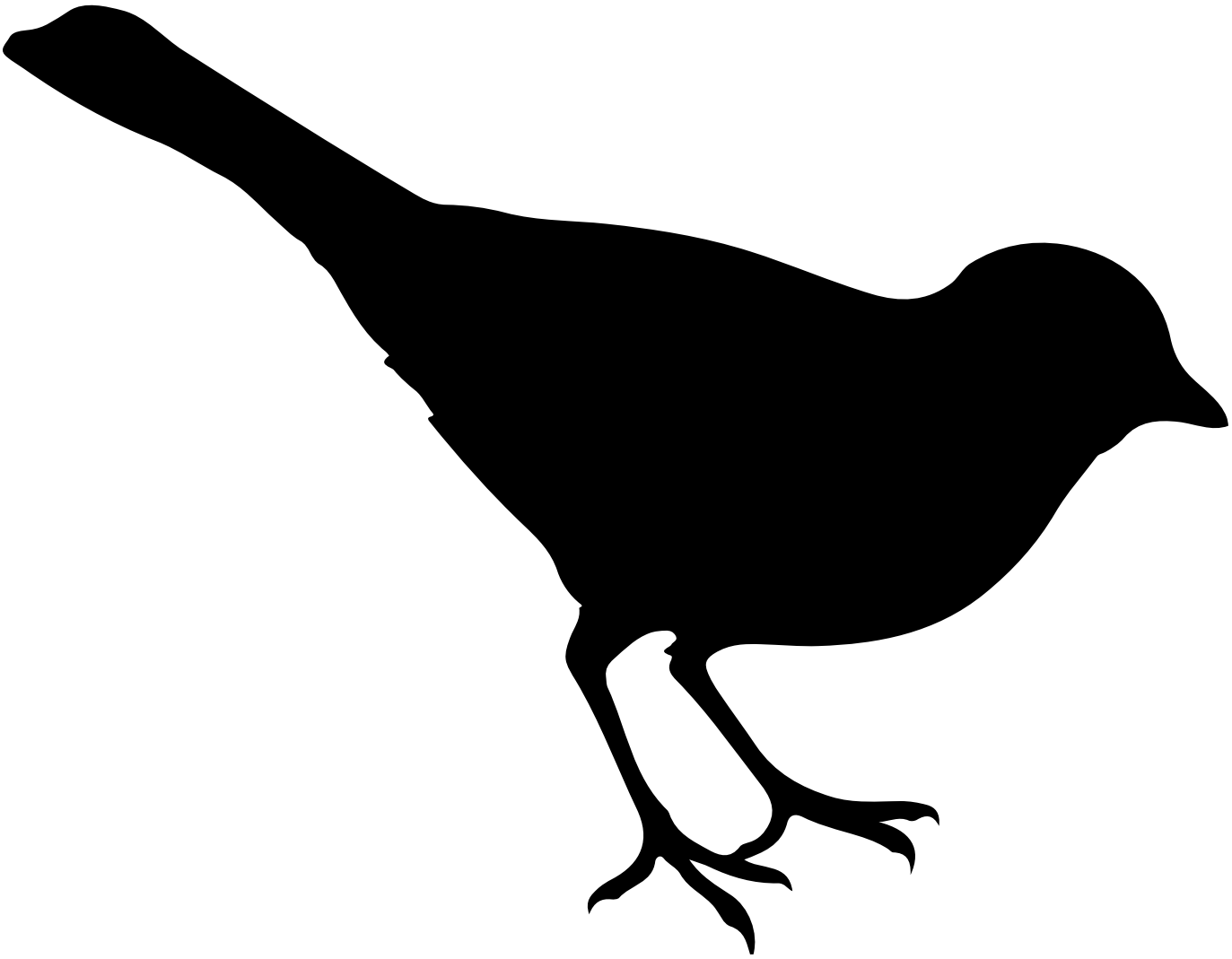
- Stiff paper (construction paper, cardstock,etc.)
- Scissors
- Markers/crayons
- Tape

DIRECTIONS

1. Using the templates found on the following pages, cut out a silhouette using construction paper.
2. Colour and decorate the silhouette.
3. Tape the silhouette to a window at home.







STEM ACTIVITIES

Did you know? "STEM" stands for Science, Technology, Engineering, and Math!

Create Your Own MILK TO GLUE

Activity from Cloverbuds - Year 2 - Field Crops Unit

TIME: 60 Minutes (Incl. cook time)

MATERIALS NEEDED

- 125 mL (1/2 cup) milk
- 10 mL (2 tsp.) vinegar
- 1 mL (1/4 tsp.) baking soda
- Water
- Small crock pot
- Small mixing bowl
- Liquid meaures
- Measuring spoons
- Wooden spoon

DIRECTIONS

1. Pour the milk into a small crock pot. Heat the milk slowly. Stir the milk until it is hot but not boiling. Turn off the crock pot. Add vinegar and stir. Lumps will begin to form.
2. Pour off the liquid and rinse the lumps in cold water. These lumps are called casein, which is milk protein. Pour the lumps into a small mixing bowl and add the baking soda. Slowing add a little water and stir until the mixture becomes pasty. You now have milk glue!
3. Store in a covered container in the refrigerator to keep from drying out. Use with craft activities.

Create Your Own MILK ART EXPLOSION

MATERIALS NEEDED

- Milk (2% or higher)
- Dinner plate
- Food colouring (red, blue, green, yellow)
- Dish soap
- Cotton swabs

DIRECTIONS

1. Pour enough milk in the dinner plate to completely cover the bottom of the plate. Allow the milk to settle completely. Add one drop of each of the four colours of food colouring - red, yellow, blue, and green to the milk. Keep the drops close together in the center of the plate of milk. Find a clean cotton swab and place it in the milk. It's important not to stir the mix, just touch it with the tip of the cotton swab. Note, when the plain cotton swab touches the milk, there should be no reaction.
2. This is to show that it is not the cotton swab that causes the reaction, but rather the dish soap. Now place a drop of liquid dish soap on the other end of the cotton swab. Place the soapy end of the cotton swab back in the middle of the milk and hold it there for 10 to 15 seconds. Allow the milk to sit for another 30 seconds or until the colours stop reacting. Add another drop of soap to the tip of the cotton swab and try it again.
3. This activity can be repeated with many variations for varied reactions, such as placing only certain colours in to start, and adding others later, or spreading out the colour drops in different locations.
4. For more fun, simply get new milk and repeat the activity. Try as many variations as you can think of.

TIME: 10 - 20 Minutes

Activity from Cloverbuds - Year 2 - Milk Unit

SODA EXPLOSION

Activity from the 4-H Ontario Adventures in STEM Project

WARNING: This experiment must be done outside because of the mess it will make! You should wear safety goggles and should stand back immediately after putting the Mentos candy in the pop bottle.

MATERIALS NEEDED

- 1 2-liter bottle of diet soda (or more if you want to repeat the experiment
- 1 package of Mentos candy (or more if you want to repeat the experiment)

DIRECTIONS

1. Position the bottle on the ground so that it will not tip over.
2. The goal is to drop all seven Mentos into the bottle of soda at the same time (which is trickier than you might think). One method for doing this is to roll a piece of paper into a tube just big enough to hold the loose Mentos. Load the seven Mentos into the tube, cover the bottom of the tube with your finger, and position the tube directly over the mouth of the bottle. When you pull your finger out of the way, all seven Mentos should fall into the bottle at the same time.
3. Drop in the Mentos.
4. This final step is very important . . . run away! But don't forget to look back at the amazing eruption of soda.

How does it work?

A bottle of soda is full of carbon dioxide (the bubbles). The bubbles stay in the liquid until the bottle is opened. When you drop any sort of object into a bottle of soda, bubbles form on the surface of the object. The Mentos drops to the bottom of the bottle, forming lots and lots of bubbles on its pitted surface along the way. When all of this gas is released it forces the liquid up and out of the bottle in a giant whooshing geyser of sticky soda.

More Food For Thought:

- How many more Mentos would it take to create an even bigger explosion?
- What other ways can you think of to get the Mentos quickly into the bottle?
- What happens if you use regular cola, instead of diet?

LOOK! NO SOIL!

Activity from the 4-H Ontario Adventures in STEM Project

This activity will determine whether a bean plant grows faster and taller using a traditional soil planting method or hydroponic method.

MATERIALS NEEDED

- Bean plant seeds
- Four plastic plant pots
- One bag of potting soil
- Two- to-four gallons of distilled water
- Two peat pellets
- Two potting nets for hydroponic growing
- Ruler

DIRECTIONS

1. Prepare two soil pots with potting soil. Plant bean plant seeds about 1/4 to 1/2 inch into the soil and cover loosely with a sprinkling of soil on the top. Give the plants plenty of sun and keep them in the same climate. Any variables between the soil and hydroponic plants can affect the experiment, so try to keep variables nonexistent or at a low.

2. Prepare the hydroponic growing pots by placing the seeds in a peat pellet and saturating with water to cause them to "puff up." Make sure the bean plant seeds are covered by a little bit of peat before "planting."

3. Fill the other two pots with distilled water. Place the hydroponic potting nets on top of the pots, making sure that the water touches the nets. Place the peat pellets with the seeds inside the nets.

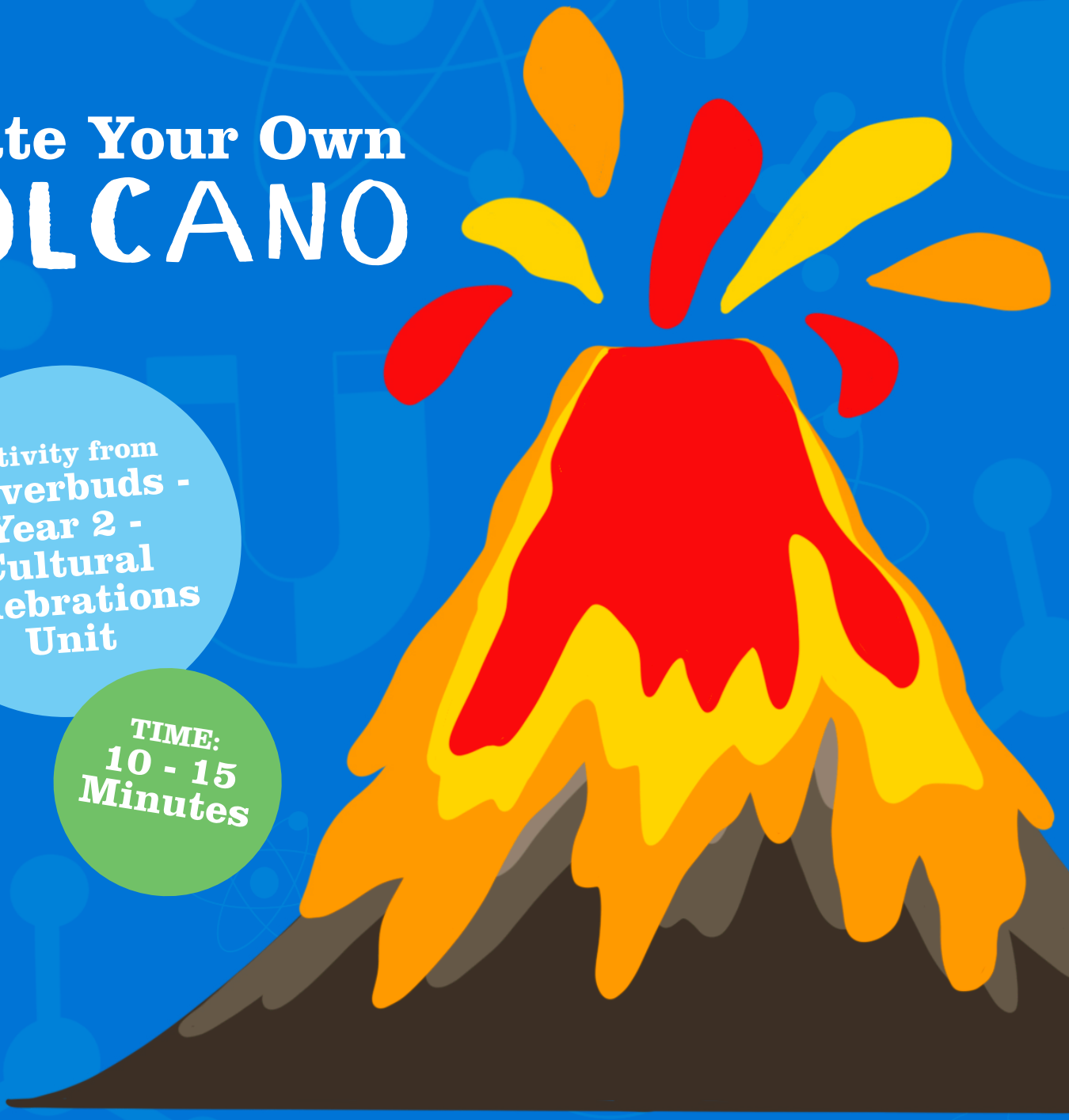
4. Water the soil plants every three days or when the soil feels dry to the touch. For the hydroponic pots, sprinkle a little water on the peat pellet to keep the pellet moist. As the roots grow, they will grow down into the pot of water. Remember to keep the pot full!

5. Observe, record, and analyze: Measure the hydroponic bean plants and the soil plants every three days or so. Determine a good schedule in which to measure the plants. Record in millimeters how tall the plants are getting and how quickly they are growing. Compile a chart of the results.

More Food For Thought:

- Which method of growing the bean plants worked the best?
- Which produced the fastest growth?
- Which produced the tallest growth?
- Overall, which do you think was the better medium – soil or water?

Create Your Own VOLCANO



Activity from Cloverbuds - Year 2 - Cultural Celebrations Unit

TIME: 10 - 15 Minutes

MATERIALS NEEDED

- Baking soda
- Vinegar
- Large container to hold the baking soda and vinegar
- Paper towels or a cloth (just in case!)

DIRECTIONS

1. Place some of the baking soda in your container. Pour in some of the vinegar. Watch as the reaction takes place!

How does it work?

The baking soda (sodium bicarbonate) is a base while the vinegar (acetic acid) is an acid. When they react together they form carbonic acid which is very unstable. It instantly breaks apart into water and carbon dioxide which creates all of the fizzing as it escapes the solution.

LEMON VOLCANOES

MATERIALS NEEDED

- Lemons (2 per volcano)
- Baking Soda
- Food Colouring
- Craft Stick
- Dish soap
- Tray
- Cup & Spoons

DIRECTIONS

1. Prep your lemon by slicing the bottom off to make them sit flat. Flip the lemon over and slice out the core. If you are making an open-faced volcano, slice the lemon in half.
2. Prepare extra lemon juice by slicing a second lemon in half and juicing it. Pour juice into a cup and set aside.
3. Place your cored lemon on a tray. Use your craft stick to mush the center of the lemon and bring out the juices. Be sure to keep the juice in the lemon!
4. Place a few drops of food colouring or liquid watercolours (do not dilute) in the center of the lemon.
5. Add in a good squeeze of dish soap to the lemon. This is not necessary but causes the bubbles to ooze and froth more and longer.
6. Add a spoonful of baking soda into the lemon. It should start to fizz. Take your craft stick and stir the lemon and lemon juice. It should start foaming really well as you stir it!
7. To keep the reaction going alternatively add more baking soda, colouring, dish soap and the reserved lemon juice to the reaction. Squeezing the lemon to release the juices also enhances the reaction.

Activity from the **4-H Ontario Adventures in STEM Project**

How does it work?

Lemon juice contains citric acid which when mixed with baking soda (sodium bicarbonate) reacts to form carbon dioxide and sodium citrate, which causes the liquid to fizz and bubble. Citric acid is a common food additive used in soft drinks as a preservative and flavouring.

Create Your Own STOMACH AT WORK

Activity from the 4-H Ontario Beef Project

TIME: 30 Minutes

In this activity, witness and experience first-hand what the digestive process looks like in the stomach!

MATERIALS NEEDED

- Bread
- Re-sealable plastic sandwich bag
- Cola
- Hay (ground corn can also be used)
- Paper towels

DIRECTIONS

1. Place half a slice of bread in a re-sealable plastic sandwich bag. The bag acts like a stomach - a muscle that contains and squeezes the food.
2. Fill the bag with 75mL (1/3 cup) of cola. The liquid acts like the digestive juices in the stomach. The digestive juices are stomach acid and enzymes that react chemically with the food in the stomach. Observe what starts to happen to the bread.
3. Ensure that the plastic bag is tightly sealed. Wrap a piece of paper towel around the bag (the model stomach).
4. Gently squeeze the paper towel covered plastic bag for two minutes. This will act as the muscles for the model stomachs. Be sure to keep the paper towel wrapped around the bag and be gentle when squeezing the bag.
5. Remove the paper towel and, without opening the bag, observe what has happened to the contents.
6. Repeat this activity using hay or grain instead of bread. Observe the difference in how the 'food' broke down in the bag.

More Food For Thought:

- Think about how your own pets and/or livestock digest their food. Are they monogastric or ruminant animals?
- Was it easy or hard to get the hay to start to break down?
- Does the type of feed make a difference for the length of time required for food to start to break down?

Did you know? Ruminant stomachs have 4 compartments, and monogastric stomachs have only 1.

Create Your Own BUTTERFLY PUDDLES

TIME: 10 - 15 Minutes

Activity from Cloverbuds - Year 2 - Milk Unit

MATERIALS NEEDED

- Flat pan (like a pie plate)
- Garden soil
- Water

DIRECTIONS

1. Butterflies cannot drink from ponds or other larger bodies of water and so they must drink from flowers or mud puddles. Mud puddles allow butterflies to intake moisture and necessary nutrients. This activity will allow you to make your own mud puddle for butterflies.
2. Go outside and collect some soil - enough for a pie plate. Fill an old pie plate almost to the rim with dirt. Add water, just enough to make a soupy mud. Stir to make it a puddle. Then, set out the mud puddle in a spot near flowers that attract butterflies.
3. Each day, check on the butterfly puddle and add water as required. Watch the puddle over several days and you will see butterflies landing for a drink!

Create Your Own PAPER TOWERS

Activity from the 4-H Ontario Building Blocks Engineering Project

MATERIALS NEEDED

- 3 sheets of standard 8 1/2"X11" plain white paper
- 3 regular paper clips

THE CHALLENGE

Build the tallest free-standing paper tower using only 3 sheets of plain white paper and 3 paper clips. Tearing of the paper is allowed. Scissors cannot be used.

THE GOAL

To have the tallest tower that can stand on its own for a minimum of 5 seconds.

READY, AIM, MARSHMALLOWS!

Activity from the 4-H Ontario Adventures in STEM Project

With this activity, you will learn about physics concepts, such as energy and motion, by making a catapult.

MATERIALS NEEDED

- One-inch rubber band
- Marshmallows
- Electrical tape
- Three pencils
- Hole punch
- Plastic spoon
- Markers
- Thin shoe box
- Ruler
- Craft knife

DIRECTIONS

1. Cut one end of the shoe box so that there's a one-inch piece at the bottom.
2. From that side, put a dot 2.5 cm from the top and 6.25 inches from the back wide side of the box.
3. Punch a hole through that dot big enough that a pencil can stick through.
4. Do steps 2 and 3 on the other wide end. Put a pencil through the holes. Put another hole where the other pencil will touch the bottom of the shoe box.
5. Have your young scientist tape the handle of the spoon to another pencil. Then, tape this pencil to the first pencil.
6. Put the rubber band through the bottom hole. Insert the last pencil into the rubber band loop underneath the shoe box so that the band doesn't escape. Loop the band over the second pencil.
7. Put marshmallows or other small objects on the spoon, and have the scientist gently pull it back. When the rubber band extends, it has a lot of potential energy, and when the spoon is released, this becomes kinetic energy!

More Food for Thought

- What were the challenges you faced?
- What did you think would happen versus what actually happened?
- What changes would you make to your catapult to make the marshmallows go even farther?

Create Your Own BELCHING EXPERIMENT

This activity demonstrates that proper belching is a matter of life or death for ruminants. Ruminants are animals that have a four-chambered stomach.

Activity from the 4-H Ontario Veterinary Project

MATERIALS NEEDED

- Balloon
- Pop

DIRECTIONS

1. Pour pop into a balloon.
2. Close the balloon carefully and shake it up.

How does it work?

The gas builds up in the balloon until the balloon is tight. This is what would happen to the animal's rumen (stomach) if the gas was not released.

Create Your Own CORN PLASTIC

Activity from Cloverbuds - Year 2 - Field Crops Unit

Time: 15 - 20 Minutes

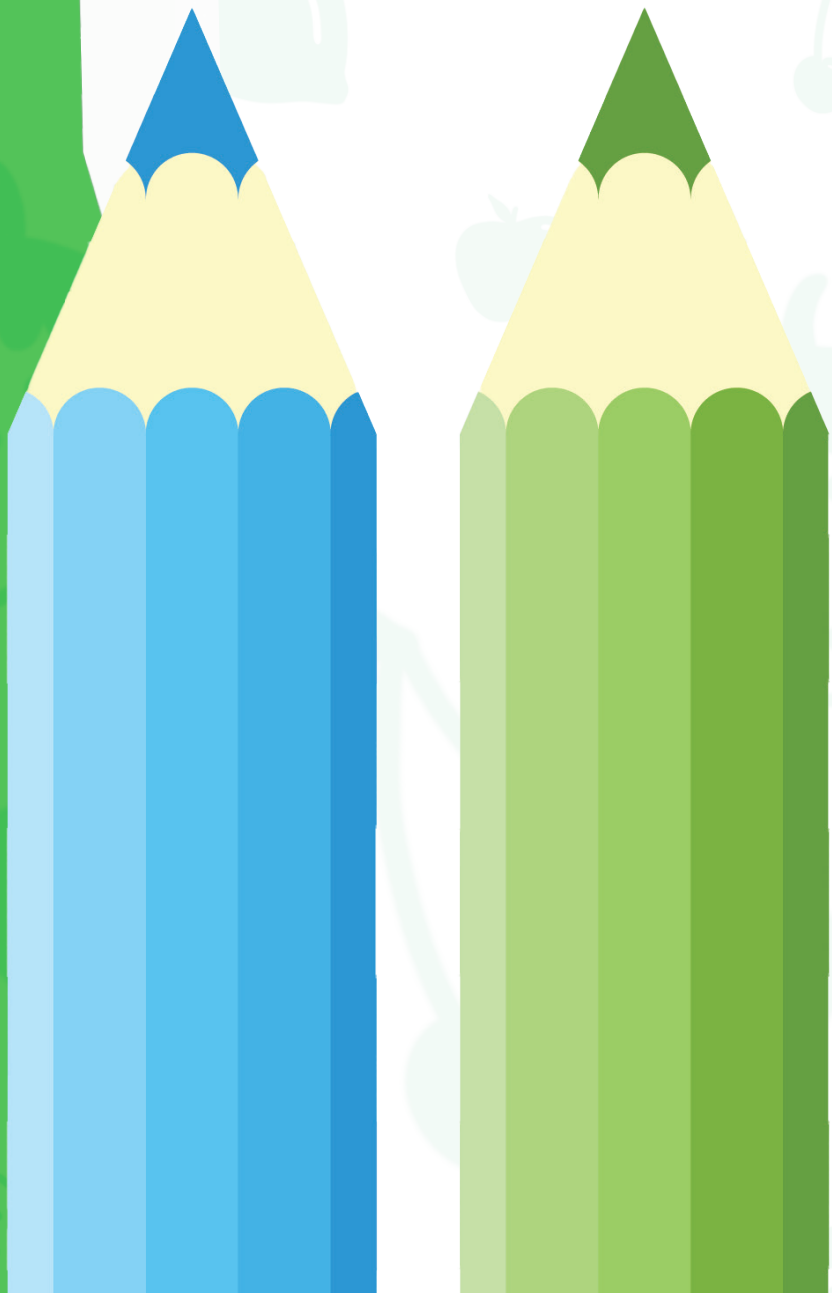
MATERIALS NEEDED

- Cornstarch
- Measuring spoons
- Corn oil
- Water
- Medicine dropper
- Food colouring
- Microwave
- Sandwich-size re-sealable plastic bag

DIRECTIONS

1. Place 15mL (1 tbsp.) of cornstarch in a re-sealable plastic bag. Add two drops of corn oil to the corn starch. Add 25mL (1 1/2 tbsp.) of water to the oil and cornstarch. Stir the mixture. Add two drops of food coloring to the mixture and stir well.
2. What do you notice about their biodegradable plastic? If it were to harden, what do you think you could make with it? Look and feel the plastic through the re-sealable bag.
3. Next, microwave the biodegradable plastic for 20 to 25 seconds on high. Form the plastic into a ball once it has cooled slightly and describe what it will do.

Printable ACTIVITIES



Did you know?
The 4 H's represent Head, Heart, Hands, and Health!

ONTARIO FRUIT & VEGETABLE WORD SCRAMBLE

Activity taken from: Cloverbuds Year Two Ontario's Tasty Fruits & Vegetables Unit

1. EAP ___
2. RCON ____
3. PERA ____
4. HEACP _____
5. PPELA _____
6. PEGRA _____
7. NONOI _____
8. OTOTAP ______
9. CAROTR ______
10. PERPEP ______
11. TMOTOA ______
12. BCCOROLI _______
13. PUKMINP _______
14. TMLWONEEAR _________
15. STRAYWBERR _________

Answers: 1. Pea; 2. Corn; 3. Pear; 4. Peach; 5. Apple; 6. Grape; 7. Onion; 8. Potato; 9. Carrot; 10. Pepper; 11. Tomato; 12. Broccoli; 13. Pumpkin; 14. Watermelon; 15. Strawberry

ONTARIO FRUITS & VEGETABLES

BY THE SEASON

Activity taken from the **Ontario's Fruits and Vegetables Project**

Fill in as many Ontario grown fruits and vegetables that you would identify as being fresh and readily available by the season. Some may overlap. An example has been provided to help you get started. Do this on your own and then see what other members suggest.

SPRING e.g. asparagus	**SUMMER** e.g. strawberries
FALL e.g. butternut squash	**WINTER** e.g. apples

Are there any conclusions that you can make about the availability of fresh Ontario produce?

NUTRITION SCAVENGER HUNT

Activity taken from the **Ontario's Fruits and Vegetables Project**

Using the Nutrition Guide from Foodland Ontario, find the answers.

The vegetable with the most calories...	A winter fruit that is a source of Vitamin C...	Name 1 fruit and 2 vegetables that are a source of folate...
Two (2) summer vegetables that are sources of Vitamin C...	The fruit with the most fibre...	Two (2) sources of spring fruits that have Vitamin C...
Two (2) spring vegetables that have sources of Vitamin C...	Two (2) fall vegetables that have sources of Vitamin C...	The fruit with the most calories...
Three (3) vegetables that are sources of Vitamin A...	The vegetable with the most grams of carbohydrates...	A vegetable that contains niacin (Vitamin B3)...
The fruit with the most grams of carbohydrates...	A fruit that is a source of lycopene...	The vegetable that has the most fibre...
Two (2) winter vegetables that contain Vitamin C...	A fall fruit that is a source of Vitamin C...	Three (3) summer fruits that are sources of Vitamin C...

OUTDOOR ALPHABET SCAVENGER HUNT

- [ ] **A - Ant**
- [ ] **B - Bark**
- [ ] **C - Creek**
- [ ] **D - Dew**
- [ ] **E - Evergreen Tree**
- [ ] **F - Flower**
- [ ] **G - Green Leaf**
- [ ] **H - Hat**
- [ ] **I - Insect in a Web**
- [ ] **J - Jug of Water**
- [ ] **K - Kindling**
- [ ] **L - Ladybug**
- [ ] **M - Map**
- [ ] **N - Nest**
- [ ] **O - Orange Leaf**
- [ ] **P - Pinecone**
- [ ] **Q - Quick Animal**
- [ ] **R - Rock**
- [ ] **S - Sunglasses**
- [ ] **T - Tree Stump**
- [ ] **U - Unique Rock**
- [ ] **V - "V" Shape in Tree**
- [ ] **W - Walking Stick**
- [ ] **X - X on the Map!**
- [ ] **Y - "Y" Shaped Stick**
- [ ] **Z - Zipper**

Activity taken from: Cloverbuds Year Two Ontario's Tasty Fruits & Vegetables Unit

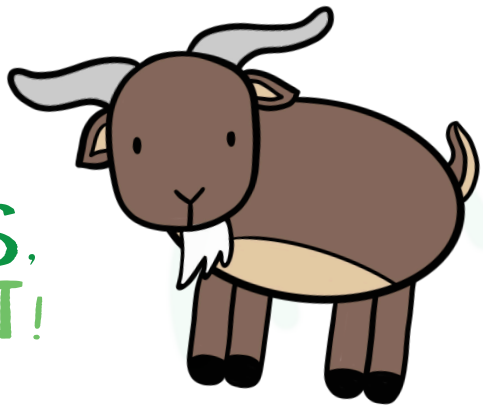
GLORIOUS FOODS

Draw a circle around foods that you like.
Put an X through foods that you don't like.
Make a cloud around foods that you have heard of and would like to try.

ARTICHOKE
CURRANTS
NECTARINES
SPINACH
LETTUCE
GREEN BEANS
CABBAGE
CAULIFLOWER
APRICOTS
SWEET POTATOES
ZUCCHINI
PARSNIPS
RHUBARB
BRUSSELS SPROUTS
CRABAPPLES
BOKCHOY
BEETS
ONIONS
BLUEBERRIES
GARLIC
GOOSEBERRIES
STRAWBERRIES
LEEKS
SPROUTS
SNOWPEAS
CHERRIES
CHINESE CABBAGE
SWEET CORN
PEPPERS
RASPBERRIES
RUTABAGA
PLUMS
TOMATOES
GRAPES
APPLES
SQUASH
CELERY
ASPARAGUS
CARROTS
PEACHES
MUSHROOMS
EGGPLANT
CUCUMBERS
RADISHES
CANTALOUPE
PEARS
CRANBERRIES
WATERMELON
RADICCHIO
RAPINI

Activity taken from the Ontario's Fruits and Vegetables Project

Activity taken from **Cloverbuds - Year 2 - Alternative Livestock**

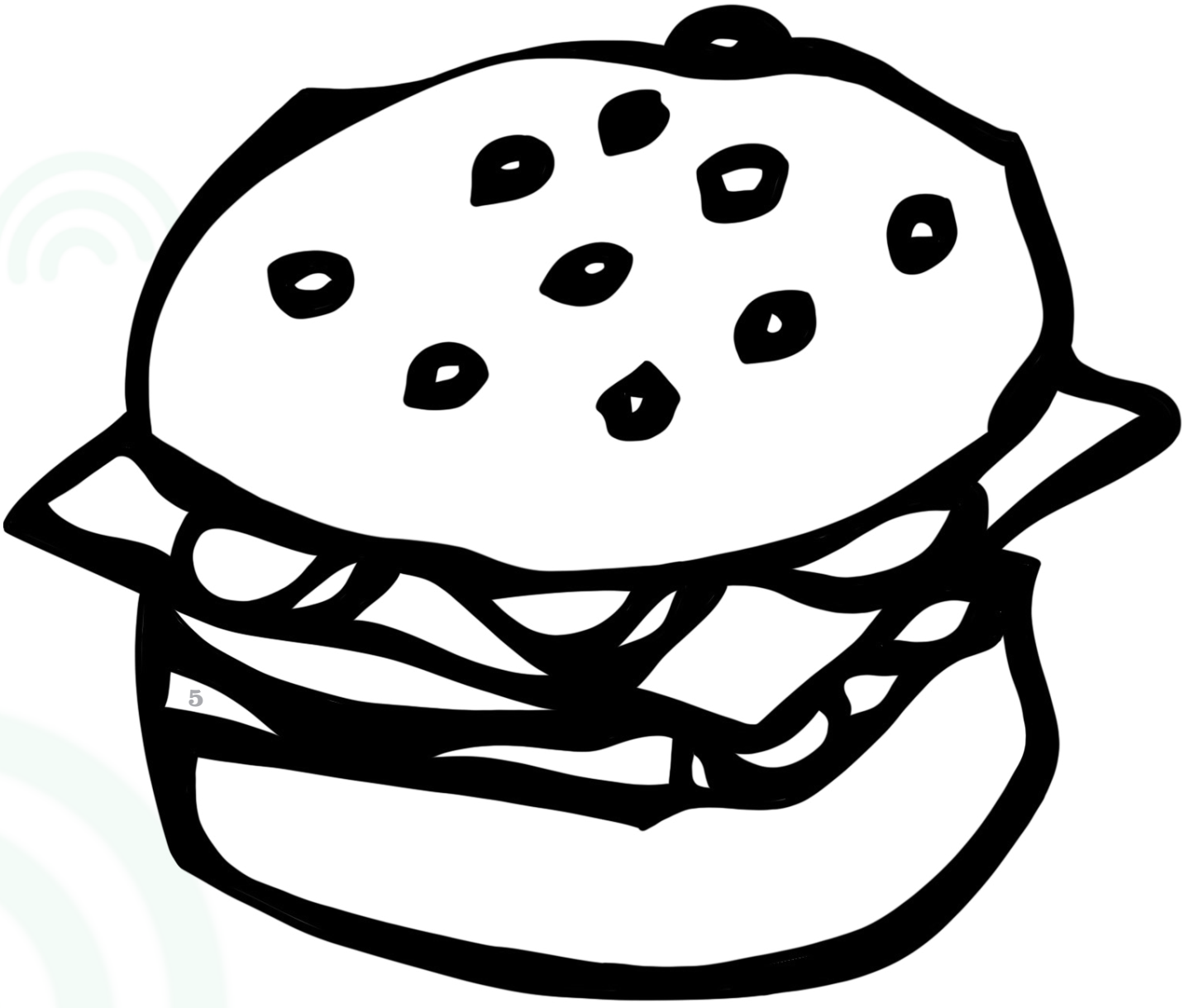


DRAW A FACE, HOOVES, AND TAIL ON THE GOAT!

COLOUR BY NUMBER

Follow the colour code at the bottom of the page and colour in each area of the picture that matches the corresponding number.

1 - yellow
2 - green
3 - red
4 - orange
5 - brown



PARTS OF THE HORSE WORD SEARCH

S L U F H N T H R O A T L A T C H W C I
N T F X E E E B F P F K T R K C L R K E
U Z I H I T B H A H C N L M N X E V U S
V G E F T F L S O A U C B B C S S D A Y
Z M L L L K T O B O S H W E H P U O R C
C W O N O R R X C D F E S O E F B O B D
W I N S R J K Y E K B E C N E R F A U W
N T O N S T E H T I W K E K K L Q L E M
E S S L Z K P D B Q W N I P N H E G I L
J Q T P E H O C K K K Z J Z Z V H C O L
V P R X W R E Y B C T X L L X U A I I P
N H I G S P R Z T U G W V P W T S K Q O
T H L N Q Q P A W X C M J B M Q Y E Q I
L L O P X N I D B E U U Q K U B I O L Z
Y Q M A M O H B B J N Y H A Y T Z P X W
S T U K O N Y I R I K P K F P K M Y I D
F Z R Y P N U V K B N Q V Q Q I O B H V
J G C K T A B S D G E M Y Q M U Z Z L E
A C S F Y C A I F M E D R C D T Q Y Q R
N Q Y E C G Y D N O E Y V A Y N H O I Y

Activity taken from the 4-H Ontario Horse Project

ARM
BACK
BARREL
CANNON
CHEEK
CREST
CROUP
ELBOW
FETLOCK
FLANK GASKIN
HOCK
HOOF
KNEE
LOIN
MUZZLE
NOSTRIL
PASTERN
POLL
STIFLE
THROATLATCH
WITHERS

PICTURE PERFECT WORD SEARCH

Z	R	E	R	E	R	T	I	P	A	R	I	Z	I	P	D	K	E	S	G
W	M	E	Z	P	N	M	Z	N	S	N	B	P	M	R	L	S	F	D	T
O	T	T	F	T	C	F	Y	G	N	A	G	A	P	O	N	L	V	S	N
T	W	E	V	I	R	S	T	E	C	V	O	G	M	E	A	Z	G	P	L
A	E	P	Z	S	C	I	L	M	E	W	R	E	E	S	F	D	N	R	X
O	Y	I	L	E	O	Q	P	W	S	R	R	R	H	E	S	N	I	N	V
E	R	N	E	I	L	O	T	O	I	E	U	E	O	E	M	H	T	S	A
S	C	O	I	C	O	R	D	B	D	S	P	T	I	E	E	R	H	T	U
I	R	E	C	A	U	Z	L	T	O	A	I	R	R	T	I	U	G	R	D
H	R	S	E	J	R	U	G	P	C	X	E	V	T	E	T	H	I	A	I
L	O	X	I	E	R	G	X	S	S	T	U	L	J	T	P	P	L	E	H
R	N	R	E	R	P	E	D	L	T	C	A	M	E	R	A	A	E	O	C
C	N	S	Y	E	A	N	D	A	D	I	P	R	O	H	L	R	X	C	S
D	I	G	I	T	A	L	B	N	W	E	A	N	K	E	T	G	I	E	R
Q	R	H	M	L	I	S	L	I	I	K	V	R	H	A	N	O	P	O	O
I	P	E	P	R	O	T	C	E	L	F	E	R	T	D	Z	T	A	X	C
T	E	M	Q	J	D	S	N	E	C	U	W	M	L	R	W	O	G	C	R
E	P	A	E	G	N	A	S	Z	T	N	T	E	E	P	O	H	E	L	S
A	M	I	X	E	U	X	G	O	N	O	I	T	I	S	O	P	M	O	C
A	E	S	L	S	G	Y	R	C	O	Y	E	S	U	V	L	Q	H	A	W

Activity taken from the 4-H Ontario Digital Photography Project

PHOTOGRAPH
COLOUR
COMPOSITION
APERTURE
VIEWFINDER
LENS
FLASH
REFLECTOR
SHUTTER
BATTERIES
TRIPOD
LIGHTING
CAMERA
PORTRAITS
MEGAPIXEL
DIGITAL
LANDSCAPE
EXPOSURE
BLURRY
GRAINY

SHEEP NUTRITION WORD SEARCH

C	M	O	L	Y	B	D	E	N	U	M	E	N	Y	T
P	N	Y	Z	S	O	X	R	G	P	A	N	O	Q	H
Y	H	I	M	P	O	L	M	O	X	N	I	R	J	Q
S	Z	O	Z	U	X	D	T	P	D	G	R	I	W	G
Y	L	I	S	U	I	A	I	X	Z	A	O	R	I	S
N	K	I	M	P	S	N	A	U	V	N	L	N	U	Z
K	K	J	O	S	H	W	E	Q	M	E	H	B	C	O
X	Z	B	I	U	X	O	A	L	E	S	C	Y	O	C
U	W	U	E	Y	X	V	R	M	E	E	O	M	P	T
N	M	C	O	B	A	L	T	U	Z	S	U	S	P	Q
M	U	I	S	E	N	G	A	M	S	I	U	A	E	J
E	N	I	D	O	I	O	N	N	C	L	R	V	R	O
B	I	F	P	W	I	G	X	L	F	B	W	L	C	J
J	Y	S	E	F	X	P	A	U	T	C	P	T	W	J
H	L	L	S	C	Q	C	R	Q	I	Y	H	C	V	F

Activity taken from the **4-H Ontario Sheep Project**

CALCIUM
CHLORINE
COBALT
COPPER
IODINE
IRON
MAGNESIUM
MANGANESE
MOLYBDENUM
PHOSPHORUS
POTASSIUM
SELENIUM
SODIUM
SULFUR
ZINC

CROPS GROWN IN ONTARIO
WORD SEARCH

V J X R Z X W C P J S K M M S N M Y E K
Z P O Y U Q B Y P E A C H E S V H U A P
Z K S Z D O O C D V L Z T G E K A K E X
D D N H V S O I G E V R Z I C T K N I X
K A W R T W C A N O L A Y Z M M O X K H
P O T A T O E S O J D M O E Z Y S K D R
T S Q T J U B Y D S E D A M A M E T N D
E Q T U O D A P P L E S Y X N C S A X K
P Z R H I U C U H N R D B F B O P V L N
E M I V H N S T O M A T O E S R B Y S B
A S T A T A O J C Y R S O P V N X S X A
S F I G U L W A L N G K O S J N R O U I
A G C U K F O K O X B K U Y W H E A T S
G R A U A A V R V V I I X H B I T L K K
L A L S Y L S W E K Q P E P P E R S W L
T P E W A F Y F R J S H A Y J R A U J S
X E K L W A C O C B T C M C U B I N X Z
L S R W O X V Z A I Z J I R H G D A S X
C J G J Q N H W S T C U C U M B E R S U
B A R L E Y D T B S S T V F S T D Q X D

Activity taken from the 4-H Ontario Digital Photography Project

CUCUMBERS
TOMATOES
ALFALFA
QUINOA
CANOLA
TRITICALE
EDAMAME
APPLES
BARLEY
CORN
SOYBEANS
PEACHES
PEPPERS
WHEAT
RYE
POTATOES
GRAPES
CLOVER
OATS
PEAS

CANADA
4-H Ontario

Ontario Trillium Foundation
Fondation Trillium de l'Ontario

Ontario

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