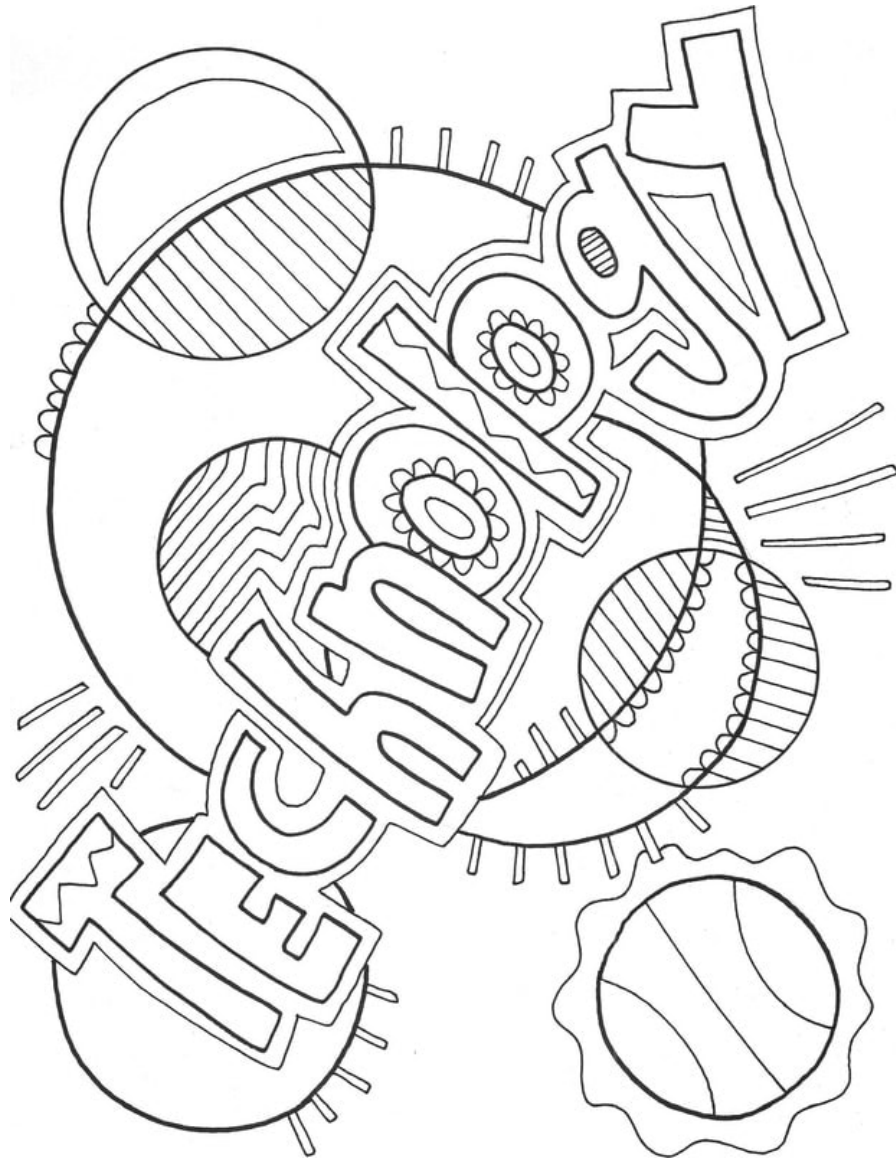


Technology and the World Around Us



The 4-H Pledge

I pledge my Head to clearer thinking,
my Heart to greater loyalty,
my Hands to larger service,
my Health to better living,
for my club, my community,
my country, and my world.

The 4-H Motto

Learn To Do By Doing

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A special thank you to the 4-H Associations and Volunteers from Grenville, Grey, Parry Sound, Wellington and York that piloted the Cloverbud Program for 4-H Ontario. Their feedback, dedication and enthusiasm helped in the development of the program materials and was greatly appreciated.

4-H Ontario is pleased to be able to provide project resource reference manuals for use by volunteers in clubs. 4-H Ontario screens and trains volunteers to equip them with the tools to serve as positive role models for youth. With so many topics to choose from, 4-H volunteers are trusted to use these resources to provide safe and quality programming while using their judgement to assess the appropriateness of activities for their particular group of youth. By downloading any 4-H resource, you agree to use it for 4-H purposes and give credit to the original creators. Your provincial 4-H organization may have restrictions on the types of 4-H projects or activities which can be completed in your region.

4-H Ontario grants permission to 4-H Volunteers to photocopy this 4-H project resource for use in their local 4-H program. All information presented in this Project Resource was accurate at the time of printing.



CANADA
4-H Ontario



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Agriculture and
Agri-Food Canada

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4-H Inclusion Statement

4-H in Canada is open to all* without discrimination based on race, national or ethnic origin, colour, religion, sex, age or, mental or physical disability.**

4-H is dedicated to providing a safe and inclusive environment that allows for universal access and participation. Where barriers to participation are identified, 4-H will, with reasonable accommodation, adapt programs, rules, policies, or expectations to reduce or remove the barriers.

Any accommodations, changes or exceptions will be assessed on an individual basis, taking into account the individual experience of the member and their family. The physical safety and emotional well-being of members, leaders, staff and volunteers is 4-H's highest priority, and is the ultimate consideration in final decisions.

4-H Canada and local 4-H organizations consider inclusion a priority. Leaders are encouraged to work with individuals and their families to identify and discuss accommodations as required, and to reach out to provincial or national office staff for help with unresolved concerns.

**This applies to youth members (ages 6 to 21), volunteers, leaders, staff and professionals.*

***Definition of discrimination as per Canadian Charter of Rights and Freedoms.*

Déclaration sur l'inclusion des 4-H

L'adhésion aux 4-H au Canada est ouverte à tous les jeunes* sans discrimination fondée sur la race, l'origine nationale ou ethnique, la couleur de la peau, la religion, le sexe, l'âge ou le handicap mental ou physique. **

Les 4-H ont pour mission d'offrir un environnement sécuritaire et inclusif qui permet l'accès et la participation de tous. Lorsque des obstacles à la participation sont décelés, les 4-H adapteront, à l'aide de mesures d'adaptation raisonnables, les programmes, les règles, les politiques ou les attentes afin de réduire ou d'éliminer ces obstacles.

Toute mesure d'adaptation, modification ou exception sera évaluée au cas par cas, en tenant compte de l'expérience personnelle du membre et de sa famille. La sécurité physique et le bien-être émotionnel des membres, des animateurs et des animatrices, des membres du personnel et des bénévoles sont la priorité absolue des 4-H et constituent le facteur ultime à considérer lors de la prise des décisions définitives.

Les 4-H du Canada et les organisations locales des 4-H considèrent l'inclusion comme étant une priorité. Les animateurs et les animatrices sont encouragés à collaborer avec les personnes et leurs familles afin de définir et d'examiner les mesures d'adaptation, selon les besoins, et de communiquer avec le personnel du bureau provincial ou national pour obtenir de l'aide en cas de préoccupations non résolues.

**Ceci s'applique aux jeunes membres (âgés de 6 à 21 ans), aux bénévoles, aux animateurs, aux membres du personnel et aux professionnels.*

***Selon la définition de discrimination en vertu de la Charte canadienne des droits et libertés*

TECHNOLOGY & THE WORLD AROUND US

Objectives and Goals of the Unit:

- Understand what the word technology means
- Learn how we use technology in our everyday lives
- Inspire creative thinking by looking at what future technology could look like

Background:

Technology is found in most parts of the world and has become an everyday part of our lives. In this unit, Cloverbuds will learn about some of the most common types of technology available today, how to use technology safely, and how technology is found in agriculture through fun, hands-on activities.

4-H Pledge and Roll Call

Suggested Roll Calls:

- Name something electronic in your house.
- If you could build a robot to do a job that you don't like doing, what kind of robot would you build?
- If you had all the money in the world, what kind of technology/electronics/vehicle would you buy?

Time Frame: Units are to be completed in a two hour time frame. there is more material here than what can be covered in two hours. Please choose activities according to the age and abilities of your clover bud participants.

GETTING STARTED

Technology Wordsearch

Time: 10-15 minutes

Materials Needed:

- “Technology & the World Around us” Wordsearch (found in the Resource section at the end of this unit)
- “Technology & the World Around Us” Answer Sheet (found in the Resource section at the end of this unit)
- Writing Utensils

Print enough word searches for every Cloverbud. Distribute word searches and writing utensils and give Cloverbuds at least 5 minutes to work independently on the activity. After the time is up, or once everyone is finished, gather Cloverbuds and go over each of words listed on the word search.

Responsible Use of Technology

Time: 20-30 minutes

Materials Needed:

- Computer/laptop and access to the Internet

Discover how to make responsible use of technology, internet and social media. Besides being a tool to get information and to communicate, the internet is a world full of possibilities, but it also has rules.

Watch the following video created by Smile and Learn titled Responsible Use of Technology for Kids - First Mobile - Cyberbullying - Fake News - Online Privacy https://www.youtube.com/watch?v=JkkTN0pQ_Ug

After watching the video, ask the following questions:

- Has someone ever sent you a hurtful message using technology? Do you know of someone who has received a hurtful message?
 - What type of information should you never share online? (address, phone number etc.)
-

- Have you ever read information online that you didn't think was real (that it was fake news)? What did you do?
- Who should you share your password(s) with?
- If you have questions about something online, who would you ask?

LET'S EXPLORE

Scavenger Hunt

Time: 25-30 minutes

Materials Needed:

- Ipad or cell phone
- Scavenger Hunt worksheet (found in the Resource section at the end of this unit)

Go on a scavenger hunt and use an ipad or cell phone to take photos. Tick items off of the list as they are found. After completing the Scavenger Hunt, have members compare the pictures they took.

Agriculture Technology Match-Up Game

Time: 10-15 minutes

Materials Needed:

- Technology Word Match pages (found in the Resource section at the end of this unit)
- Technology Word Match Answer Key

This activity could be completed individually, in pairs, small groups or as a large group.

Print off the Technology Word Match-Up Game pages ahead of the meeting and cut into pieces. Have members match the words with the definitions. Review the match-ups to make sure they are correct and discuss each word to make sure everyone understands each word and definition.

LOOKING WITHIN

Create a Shapes Robot

Time: 15-20 minutes

Materials Needed:

- Construction paper (various colours)
- Scissors
- Markers
- Glue
- Googly eyes (optional)



Image Credit: pinterest.com

Have Cloverbud members use their imagination to create a shapes robot! Encourage Cloverbuds to cut out various shapes using different colours and glue onto a page. Have Cloverbuds name their robot and one task that their robot is able to do.

Create Your Own Scribble Robot!

Time: 25-30 minutes

Materials Needed:

- Pool noodle
- Electric toothbrush (found in some dollar stores)
- Markers
- Tape
- Decorations (pipe cleaners, googly eyes, pom poms etc.)



Image Source: Green Kids Crafts

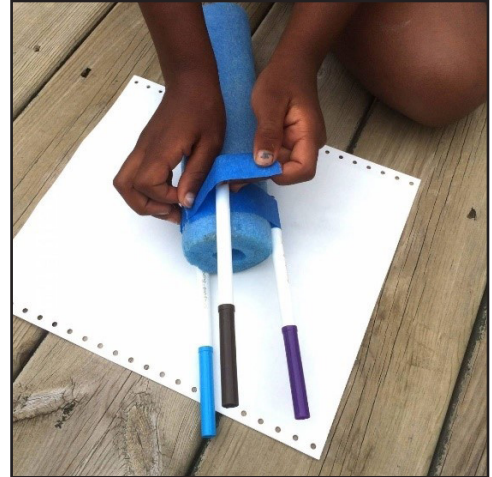
One way that you can explore hard-to-reach places is by using a robot. Robots are sophisticated machines that can sense, plan and act. The Curiosity rover is a robot that's exploring Mars.

Cut pool noodle to a length that is slightly larger than the toothbrush (about 2.5cm

longer). Insert toothbrush into pool noodle. Tape each marker to the noodle to create a 3-legged stool. It may be easier to also wrap the tape around the whole noodle to capture the markers more securely.

Decorate the pool noodle. Be creative! Pipe cleaners for arms, pom poms for hair and adhesive google eyes can be used.

Place the Scribble Bot on some paper and turn on the toothbrush. Watch the magic happen!



WRAPPING THINGS UP

Is There Anything Wrong with Technology?

Time: 15-20 minutes

Materials Needed:

- Computer/Laptop and access to the Internet
- Flip chart paper
- Marker(s)

View the following video created by CBC Kids titled Small Talk - Technology: <https://www.youtube.com/watch?v=kZfOVg07sys>

After watching the video, ask the group the following questions:

- What piece of technology do you use the most?
- Do you think too much technology is used at school?
- Do you think too much technology is used in your home?
- What activities could you do instead of using technology (phones, ipads, computer, etc.)?

Record the group's answers on flip chart paper if possible.

For the last question, challenge the group to see how big a list they can make.

Robot Snacks

Time: 15-20 minutes

Materials Needed:

- Pudding cups/applesauce cups/ jello cups
- Rolls of Rockets (or a similar type candy)
- Juice Boxes
- Googly eyes
- Markers
- Chocolate hearts and/or boxes of raisins (or something else for the feet)
- Hot glue gun
- Duct tape

Start from the bottom up! Glue the bottom of the juice box to the two chocolate hearts (or raisin boxes) for the feet. Add the Rockets for the arms and a heart on the robot's chest if desired.



Finish off the robots with the pudding cup upside-down and making a smiley face on it! If you want members to be able to eat the pudding, use a strong tape such as duct tape to attach it on top instead of glue.

Craft and Image Credits: <https://www.craftymorning.com/valentine-robot-snacks-kids-make/>

ADJOURNMENT

Additional Activities

- Hold the meeting at or tour a farm that uses technology (e.g. robotic milking, automatic feeders, drones)
- Take a virtual farm tour at <https://www.farmfood360.ca> — the “Voluntary Milking System Dairy Farm” video is recommended to see technology in action on a dairy farm
- Create a judging activity including any 4 samples of the same type of technology (cell phones, ipads, etc.).

References and Resources

AgScape <https://agscape.ca/>

CBC Kids <https://www.cbc.ca/kids/>

Craft Mornings <https://www.craftymorning.com/>

Education.com <https://www.education.com/>

Farm & Food Care Ontario <https://www.farmfoodcare.org/>

Green Kids Crafts <https://www.greenkidcrafts.com/>

Teaching Expertise <https://www.teachingexpertise.com/>

Technology & the World Around Us

r s o y b z c k d e l f y n n
i o l t a b l e t r u t n c f
z h b c r b e f n f q i v o o
k p h o n e x d y b t x p d n
i p r q t p r f q n e p t v e
e c c j t s t j d w c z b l l
e r o o h c k q j l h t c r e
a x i g m w r d y a n d i r c
z p i n d p d t f p o r r m t
a d f r t i u l k t l o c t r
o x i m e e g t e o o n u k o
a n p a t a r i e p g e i o n
j u a m f g t n t r y s t n i
v k d j i g h c e a a t s a c
k c h y w j y z k t l q l c s

electronics

technology

computer

drones

internet

laptop

digital

robots

tablet

phone

circuits

ipad

Technology & the World Around Us

r s o y b z c k d e l f y n n
 i o l t a b l e t r u t n c f
 z h b c r b e f n f g i v o o
 k p h o n e x d y b t x p d n
 i p r q t p r f q n e p t v e
 e c c j t s t j d w c z b l l
 e r o o h c k q j l h t c r e
 a x i g m w r d y a n d i r c
 z p i n d p d t f p o r r m t
 a d f r t i u l k t l o c t r
 o x i m e e g t e o o n u k o
 a n p a t a r i e p g e i o n
 j u a m f g t n t r y s t n i
 v k d j i g h c e a a t s a c
 k c h y w j y z k t l q l c s

electronics

internet

tablet

technology

laptop

phone

computer

digital

circuits

drones

robots

ipad

Scavenger Hunt Worksheet

- Tree
 - Hat
 - Flowers
 - Animal
 - Person
 - Stone
 - Leaf
 - Bug
 - Shoes
 - Something black & white
-

Agriculture Technology Match-Up Game

Robot

Cell Phone

Computer

Agriculture

Internet

Autonomous

Sensor

Drone

Agriculture Technology Match-Up Game

I am the name for a driver-less tractor.

I am used to store data and run programs.

I could be used for spraying crops in certain pre-determined parts of a field.

I am sometimes worn on a cow's leg, on her neck or in her ear to monitor for health.

I can be used to check the weather radar.

I am sometimes used to milk cows.

I am a vast network that connects computers from all over the world.

I am the science of producing crops and raising livestock for food.

Agriculture Technology Match-Up Game Answers

Robot	I am sometimes used to milk cows.
Cell Phone	I can be used to check the weather radar.
Computer	I am used to store data and run programs.
Agriculture	I am the science of producing crops and raising livestock for food.
Internet	I am a vast network that connects computers from all over the world.
Autonomous	I am the name for a driver-less tractor.
Sensor	I am sometimes worn on a cow's leg, on her neck or in her ear to monitor for health.
Drone	I could be used for spraying crops in certain pre-determined parts of a field.
