

CATS AND BIRDS

KEEP CATS SAFE AND SAVE BIRD LIVES



Educational
Program

Grades 7 to 9





Dear Educator,

Thank you for your interest in our educational program!

Keep Cats Safe & Save Bird Lives is an initiative of Nature Canada, the oldest conservation charity in Canada. It has been developed in collaboration with the Canadian Federation of Humane Societies, Earth Rangers, Bird Studies Canada, and our regional partners.

This package includes a number of different activities for you to use to engage your students in activities and discussions about cats and birds that address provincial curricula for Grades 7 to 9. The activities involve a variety of subject areas, including science and technology, math, art and social studies. The lessons can be taught individually or in succession.

The activities are consistent with the concepts explored in Margaret Atwood's graphic novel, *Angel Catbird*, and can be done with or without the week-long reading study (please see "**Additional Resources.**") They are designed to promote meaningful discussion and help translate the concepts explored in *Angel Catbird* into real life and your community.

Please see the Conceptual Framework & Lesson Summary for an overview of the options available. Each activity includes an outline of curriculum links to give you a better idea of where you can fit them into your lesson plans. We also list recommended materials for each activity, as well as a general time frame.

We're very interested in any ideas you may have for improvements to this program. If you have any comments, suggestions or questions, please contact me at info@catsandbirds.ca. We'd love to hear from you on social media too – find us on [Facebook](#) (TakingCareofCatsandBirds) and Twitter [@safecatsafebird](#).

Warm Regards,

Sarah Cooper

Project Manager, Cats & Birds

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CONCEPTUAL FRAMEWORK and LESSON SUMMARY

This curriculum package offers a flexible approach to introducing and addressing the Keep Cats Safe & Save Bird Lives issue with your students within the context of building healthy communities. We invite you to build a mini-unit; introduce the issue using the core lesson, select lessons of your choice (options) to delve deeper, and close with either a solution and or concluding lesson. The issue itself is interdisciplinary and while we've identified the subject(s) a particular lesson may fit the best, all the lessons are adaptable to suit your curriculum needs. Below you will find the conceptual framework and lesson summary, and following that is the same information, but organized by subject.

For a summary of the key facts pertaining to the Cats & Birds curriculum, as well as further information, please see the **Primer for Teachers**. In each lesson, specific information and links are provided in the Background Information section.

Core/ Option	Focus of lesson	Title of Lesson (original component grade & #)	Lesson Summary	Subject(s)/ Key Concept(s)
Core	Introduction Overview	1: Cats and Birds 101: A Closer Look	Students identify the key elements of the cat and birds issue and research the multiple stances within the issue.	Social Studies Science Language Math
Core	Conclusion	2: The Great Debate	Students use the information they've learned in previous lessons to formulate a stance on the issues involving domestic cats and wild birds, and to prepare and participate in a debate.	Social Studies Language (Science, Math)
Option	Evidence	3: Data and Proof	Students graph shelter statistics data from the Canadian Federation of Humane Societies (CFHS) and analyze the results.	Math
Option	Evidence	4: Population Math: Using Exponents and Fractions to Demonstrate Cat Reproduction Rates	Students engage in a math exercise using exponents to demonstrate the potential rate of reproduction of cats and discuss the impact of overpopulation of cats.	Math
Option	Evidence	5: Environmental Impact Assessment of Cats in a Community	Students research the environmental impact of cats and complete a simplified assessment	Science Social Studies

			to evaluate interactions and make recommendations for going forward.	
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Option	Evidence/ Solutions	6: Both Sides of the Tail: Keeping your Cats Safe or Letting them Roam Unsupervised?	Students identify viewpoints regarding cats that roam unsupervised and then research possible practices to keep cats safe and the potential impact on the community.	Social Studies
Option	Solutions	7: This, not That Part I: Design Time!	Teams of students design a device or app to enrich a safe cat's environment and or keep them physically and mentally healthy, or a device or app to help protect wild birds.	Science / Technology
Option	Solutions	8: This, not That Part II: Creating Media Text or Advertisements for your Invention	A group activity in which students develop ways to market the device they invented in This, not That - Part I, and evaluate each other's approach to marketing.	Language (Media Texts)
Option	Solutions	9: Creating a Community that Protects Cats and Birds Part I: Bylaws	Students study the cat bylaws in Calgary, AB and complete a worksheet to explore how bylaws can protect both cats and birds.	Social Studies
Option	Solutions	10: Creating a Community that Protects Cats and Birds Part II: Encouraging Your Local Government	After comparing their local bylaw with the Calgary model, students write a letter to their local government about how the community could improve the bylaws about cats and birds, with an option to include a town hall role play.	Language Social Studies
Option	Solutions	11: Bylaw Talk: Exploring Legislation to Solve the Issues Surrounding Cats and Birds	Students explore the role of municipal legislation in solving the issues for domestic cats and wild bird populations, how bylaws can make a community more sustainable, and how such bylaws can affect communities in other countries along birds' migratory routes.	Social Studies Science
Option	Conclusion	12: Using Media Texts to Support a Conservation Initiative	Students analyze Margaret Atwood's <i>Angel Catbird</i> as a sample of a media text written in support of a conservation initiative, and plan, create and evaluate their own media texts.	Language
Supplement	Introduction Overview	13: <i>Angel Catbird</i> in the Classroom	Students read the graphic novel <i>Angel CatBird</i> to learn about the Cat and Bird issue.	Language

LESSONS BY SUBJECT AREA

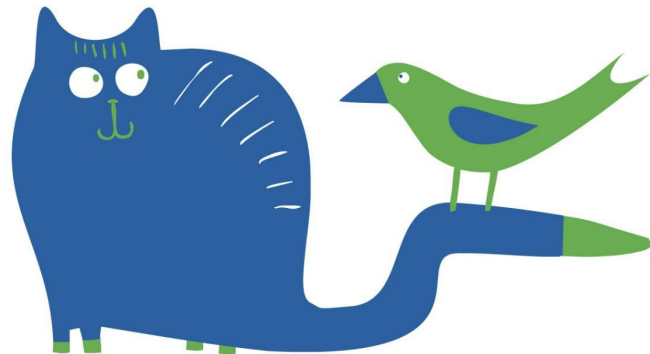
Core/Optional	Social Studies	Math	Science	Language
Core	1: Cats and Birds 101: A Closer Look	1: Cats and Birds 101: A Closer Look	1: Cats and Birds 101: A Closer Look	1: Cats and Birds 101: A Closer Look
Optional	5: Environmental Impact Assessment of Cats in a Community	3: Data and Proof	5: Environmental Impact Assessment of Cats in a Community	8: This, not That Part II: Creating Media Text or Advertisements for your Invention
Core	6: Both Sides of the Tail: Keeping your Cats Safe or Letting them Roam Unsupervised?	4: Population Math: Using Exponents and Fractions to Demonstrate Cat Reproduction Rates	7: This, not That (Part I)	10: Creating a Community that Protects Cats and Birds Part II: Encouraging Your Local Government
Optional	9: Creating a Community that Protects Cats and Birds Part I: Bylaws			12: Using Media Texts to Support a Conservation Initiative
Optional	11: Bylaw Talk: Exploring Legislation to Solve the Issues Surrounding Cats and Birds			13: <i>Angel Catbird</i> in the Classroom
Core	2: The Great Debate	2: The Great Debate	2: The Great Debate	2: The Great Debate

PRIMER FOR TEACHERS

This educational program is designed to raise awareness of two connected issues: the well-being of domestic cats and the protection of wild bird populations within the context of building healthy communities.

Cats

The pet cat, *Felix catus*, was domesticated from a wildcat, *Felis silvestris*, over 10,000 years ago and; it is now one of the most popular pets in Canada. Although domestic, a cat's hunting instincts are very much intact - even well-fed cats will hunt if left unsupervised. A recent study indicates that there are an estimated 9.3 million cats in Canadian homes. This number does not include those that are lost or abandoned, nor feral cats that may live in colonies established near human settlements. The size of the feral cat population is not well understood, but is estimated to be somewhere between 1.4 and 4.2 million.



For the purpose of this curriculum, we have identified three possible statuses of domestic cats:

- **Safe:** Owned pets that are kept indoors and fully supervised or enclosed when outdoors, with all needs met by responsible owner.
- **Stray:** cats that roam outdoors for short to extended periods of time without human supervision; owned or semi-owned strays are regularly fed, possibly by more than one person; un-owned strays are lost or abandoned pets that may become feral; stray cats are usually comfortable interacting with humans.
- **Feral:** Un-owned cats that are born and live outdoors full time either alone or in colonies; lost or abandoned pet cats may become feral; feral cats usually have to hunt for food, though some colonies are fed by cat-care groups and volunteers in special programs; feral cats are fearful of humans and avoid human contact.

The domestic cat population is far from healthy in Canada. An estimated [261,000 cats in shelters](#) did not find homes in 2016. Twice as many cats end up in shelters compared to dogs, and whereas 68 per cent of stray dogs are reunited with their owners, [only 10 per cent of cats are returned home](#). Cats that live or are allowed to roam outdoors (feral and stray cats) are exposed to a variety of threats, including diseases (e.g., Feline Immunodeficiency Virus, Feline Leukemia Virus, heartworm), parasites, poisoning, vehicle collisions, fights with wildlife and other cats, and getting lost. Stray cats also contribute to the feral cat population; feral cat overpopulation is a growing problem in communities across Canada.

Birds

At the same time, many of Canada's approximately 450 bird species are in trouble; some have declined by more than 90 per cent, and a full third are considered of urgent conservation concern. The official list of Bird Species at Risk increased from 47 to 87 between 2001 and 2017. Birds are ecologically significant species, providing a variety of "services" such as seed dispersal, insect control, and pollination: it is critical that we act to protect them.

Habitat alteration and destruction along with climate change are taking their toll, but many birds die due to other human actions and decisions. Environment Canada research estimates that, in addition to the impacts of climate change and habitat loss, **130 to 433 million birds a year die as a result of human-related causes**. These include collisions with windows, power lines, wind turbines and cars, use of pesticides decreasing food availability, and predation by domestic cats. While it is extremely difficult to calculate the number of birds killed by stray and feral cats — especially when the number of feral cats is not known — it is estimated that cats are responsible for 75 per cent of those human-related deaths of birds.

[The Canadian Federation of Humane Societies](#) is one of many organizations that urges cat owners to keep their pets safely indoors unless the cat is supervised or in an enclosure when outdoors. Estimates indicate that as many as 30 per cent or higher of pet cats are allowed to stray, in other words, roam unsupervised outdoors. While cats' independent natures might lead some people to treat them like something between pet and wildlife, we owe them the same level of care we provide dogs.

These twin issues of keeping cats safe and saving bird lives requires a balanced approach, one that respects the nature of each kind of animal and considers the needs of each. By developing students' personal connections to birds as wild animals that live all around us, the program cultivates awareness and empathy for our richly varied bird populations. Similarly, by building awareness of responsible pet care and how unsupervised time outdoors can be dangerous for cats, as well as the problem of feral cat overpopulation, the program seeks to improve students' understanding of how to keep cats safe, and the need to keep pets and wildlife from interacting, for the benefit of both.

Sources / Read More:

About Keep Cat Safe and Save Bird Lives: <http://catsandbirds.ca/who-we-are>

Bird Population Declines: <http://catsandbirds.ca/research/the-state-of-na-birds/>

Human-Related Threats to Birds / Impact of Outdoor Cats on Birds:

<http://naturecanada.ca/initiatives/save-bird-lives>

<http://catsandbirds.ca/research/estimated-number-of-birds-killed-by-house-cats/>

<http://catsandbirds.ca/blog/but-my-cat-never-brings-home-dead-birds/>

<http://catsandbirds.ca/blog/fledgling-season/>

<http://catsandbirds.ca/blog/where-the-birds-are/>

<http://catsandbirds.ca/blog/nature-cats-birds/>

Guide to Reducing the Impact of Cats on Birds and Wildlife

http://stewardshipcentrebc.ca/PDF_docs/CatsBirds/SPGuide_ReducingImpactCatsBirdsWildlife2016.pdf

Services Birds Provide: <http://catsandbirds.ca/birds-matter/bird-services/>

Cat demographics and shelter statistics: <http://catsandbirds.ca/research/an-update-on-cats-in-canada/>

Outdoor risks for cats:

<http://catsandbirds.ca/research/safe-happy-cat/>

<http://catsandbirds.ca/blog/coyotes/>

<http://catsandbirds.ca/blog/kitty-cam-part-ii/>

<http://catsandbirds.ca/blog/wheres-that-lost-cat/>

<http://catsandbirds.ca/blog/cats-birds-cold-weather/>

History of cats:

<http://catsandbirds.ca/blog/evolution-domestication-1/>

<http://catsandbirds.ca/blog/evolution-of-domestication-2/>

How to help cats and birds:

Keeping Birds Safe at Your Feeder: <http://catsandbirds.ca/birds-matter/keeping-birds-safe-at-your-feeder/>

Top Six Ways to Help Birds: <http://catsandbirds.ca/birds-matter/top-six-ways-to-help-birds/>

How to keep cats safe, stimulated & exercised: <http://catsandbirds.ca/research/safe-happy-cat/>

Safe Outdoor Options: <http://catsandbirds.ca/research/safe-outdoor-options/>

Tips for Transitioning: <http://catsandbirds.ca/research/tips-for-transitioning/>

Cat Training Basics: <http://catsandbirds.ca/research/cat-training-basics/>

Leash Training How-To: <http://catsandbirds.ca/research/leash-training/>

Dealing with Escape Artists: <http://catsandbirds.ca/research/dealing-with-escape-artists/>

The Happy Cat: Tips for Responsible Pet Ownership

http://stewardshipcentrebc.ca/PDF_docs/CatsBirds/HappyCatBrochure2017.pdf

Lesson 1: CATS AND BIRDS: WHAT'S THE ISSUE? (CORE)

Summary:

Students identify the key elements of the cat and birds issue and research the multiple stances within the issue.

Central Questions:

- What are the key elements of the cat and birds issue?
- What are some of the stances on the cat and birds issue?
- Can individuals and communities adopt practices and policies to ensure the safety of cats *and* protect wild bird populations from further decline? Should they?

By the end of this lesson, students will:

- understand the key elements of the cats and birds issue in Canada;
- become aware of the diversity of opinion regarding elements of the cats and birds issue;
- research viewpoints;
- explore the possibility of a balanced approach to ensure the safety of cats *and* protect wild bird populations from further decline.

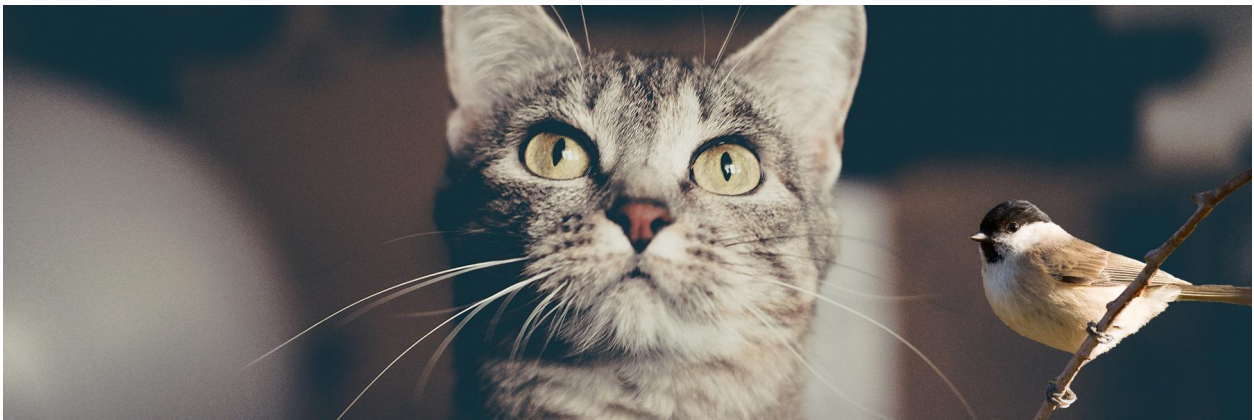
Subject(s):

- Social Studies
- Science
- English
- Math

Suggested time frame:

- Two 45-minute periods

Materials:



- Cat and Birds: Student Reading (Figure 1)

- Internet access
- Optional: Licensing of Cats: article and opinion letters (Figure 2)
- Four Corners Cards (Figure 3)
- Optional: Keep Cats Safe and Save Birds Lives brochure:
 - o digital version, downloaded from: <http://catsandbirds.ca/birds/brochures-and-bookmarks/>
 - o hard copies, ordered from: info@catsandbirds.ca

Background Information:

See Primer for Teachers

Links to Cats & Birds overview:

- <http://catsandbirds.ca/who-we-are>
- <http://catsandbirds.ca/about>

Link to brochure:

- <http://catsandbirds.ca/blog/brochures-and-bookmarks>

Link to some alternate viewpoint websites:

- <http://www.vetstreet.com/dr-marty-becker/why-my-cats-live-outdoors-but-yours-should-stay-in>
- <https://www.mercurynews.com/2017/01/13/indoor-or-outdoor-the-debate-rages-on-cats/>
- https://www.washingtonpost.com/news/animalia/wp/2016/09/02/cats-are-bird-killers-these-animal-experts-let-theirs-outside-anyway/?utm_term=.710dfa01103a

Instructions:

Warm-up: Four Corners Activity:

1. Explain to your students they will be exploring the question of whether or not individuals and communities should adopt practices and policies to ensure the safety of cats *and* protect wild bird populations from decline, within the context of building healthy communities.
2. Note that “cat” refers to the domestic cat, *Felix catus*, and “bird” refers to all the species of wild birds in Canada. Within domestic cats, their status can be “safe” (owned pets that are kept safe), “stray” or “feral.” Refer to Primer for Teachers for more information.
3. Print out the Four Corner cards (Figure 3) and place one in each corner of your classroom. Ensure there is ready access to and space for students to stand at each corner.
4. After reading aloud each of the following statements, ask students to move to the corner of the classroom that matches their level of agreement (“Strongly Agree,” “Agree,” “Disagree” or “Strongly Disagree”). As needed, indicate the center of the room as the “Don’t Know” area. Note approximate numbers at each corner (and center) for each statement, while keeping the flow moving. Save discussion for the debrief.
 - a. Cats need the freedom to roam unsupervised when outside
 - b. Letting a cat roam unsupervised outdoors puts them in danger

- c. Birds are important as they are integral to healthy ecosystems and provide ecosystem services
 - d. Bird populations are not seriously affected by cats
 - e. There is a serious problem of feral cat overpopulation in many Canadian communities
 - f. Spaying or neutering cats is important
 - g. Communities should enact bylaws to require citizens to fully supervise their cats when outside
 - h. It is only natural for cats to hunt birds (or It is only natural for *domestic* cats to hunt *wild* birds)
 - i. Most cats in shelters are reclaimed by their owners or adopted
 - j. We should treat cats the same level of care as dogs
 - k. Cats should be licenced and identifiable (with collar, tattoo, or microchip), the same as dogs
 - l. Protecting birds by keeping cats from roaming unsupervised is part of protecting the environment.
5. Debrief as a whole class by asking what factors may lead to differences in opinions [for example, level of awareness of the facts, knowledge of the subject matter, where someone lives (urban vs suburban), personal ethics, background, social norms, whether or not individuals own pets, etc.].
 6. Ask students to record one or two of the statements that they felt most strongly about (either strongly agreed or strongly disagreed).

Research Key Elements

7. Provide students with the Cats & Birds: Student Reading (Figure 1)
8. Prior to viewing or reading, ask students to specifically look for evidence that supports or refutes the statement(s) they recorded. After viewing or reading, ask the students to record the evidence they gained.
9. Discuss, asking students if anyone changed their opinion based on what they learned. Explore the importance of being aware of the key elements of an issue, as well as multiple viewpoints, to be able to make informed decisions.
10. Review the terms safe, stray and feral (See Glossary or Primer for Teachers) to aid in clear communication during the discussions; discuss as necessary.
11. Ask students to research alternate stances, either via the internet (some potential links are in Background Information), by interviewing their friends and families, or by reading the Licensing of Cats: article and opinion letters (Figure 2).
12. Lead a discussion with your students on where they now stand on the question as to whether or not individuals and communities should adopt practices and policies to ensure the safety of cats *and* protect wild bird populations from decline, within the context of building healthy communities.
13. Option: print and or provide students with copies of the Keep Cats Safe and Save Birds Lives brochure. Ask students to analyze the approach. Is it balanced?
14. Option: Ask your students if having multiple partners working collaboratively as part of an initiative such as this one strengthens the ability to achieve stated goals. Discuss.

15. Wrap-up by informing your students they will be looking at more information and evidence to help them answer the question of whether or not individuals and communities should adopt practices and policies to ensure the safety of cats *and* protect wild bird populations from decline, within the context of building healthy communities.

Figure 1: Student Reading



In Canada, multiple communities and organizations are grappling with two connected issues: the well-being of domestic cats and the protection of wild birds. Addressing these issues is critical to continue building healthy communities.

Cats

The pet cat, *Felix catus*, was domesticated from a wildcat, *Felis silvestris*, over 10,000 years ago and; it is now one of the most popular pets in Canada. Although domestic, a cat's hunting instincts are very much intact - even well-fed cats will hunt if left unsupervised. A recent study indicates that there are an estimated 9.3 million cats in Canadian homes. This number does not include those that are lost or abandoned, nor feral cats that may live in colonies established near human settlements.

For the purpose of this discussion, three possible statuses of domestic cats are identified:

- **Safe:** *Owned pets that are kept indoors and fully supervised or enclosed when outdoors, with all needs met by responsible owner.*
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The domestic cat population is far from healthy in Canada. An estimated [261,000 cats in shelters](#) did not find homes in 2016. Twice as many cats end up in shelters compared to dogs, and whereas 68 per cent of stray dogs are reunited with their owners, [only 10 per cent of cats are returned home](#). Cats that live or are allowed to roam outdoors (feral and stray cats) are exposed to a variety of threats, including diseases (e.g., Feline Immunodeficiency Virus, Feline Leukemia Virus, heartworm), parasites, poisoning, vehicle collisions, fights with wildlife and other cats, and getting lost. Stray cats also contribute to the feral cat population; feral cat overpopulation is a growing problem in communities across Canada.

[The Canadian Federation of Humane Societies](#) is one of many organizations that urges cat owners to keep their pets safely indoors unless the cat is supervised or in an enclosure when outdoors. Estimates indicate that as many as 30 per cent or higher of pet cats are allowed to stray, in other words, roam unsupervised outdoors. While cats' independent natures might lead some people to treat them like something between pet and wildlife, it is suggested cats deserve the same kind of care we provide dogs.

Birds

At the same time, many of Canada's approximately 450 bird species are in trouble; some have declined by more than 90 per cent, and a full third are considered of urgent conservation concern. The official list of Bird Species at Risk increased from 47 to 87 between 2001 and 2017. Birds are ecologically significant species, providing a variety of "services" such as seed dispersal, insect control, and pollination: it is critical that we act to protect them.

Habitat alteration and destruction along with climate change are taking their toll, but many birds die due to other human actions and decisions. Environment Canada research estimates that, in addition to the impacts of climate change and habitat loss, **130 to 433 million birds a year die as a result of human-related causes**. These include collisions with windows, power lines, wind turbines and cars, use of pesticides decreasing food availability, and predation by domestic cats. While it is extremely difficult to calculate the number of birds killed by stray and feral cats — especially when the number of feral cats is not known — it is estimated that cats are responsible for 75 per cent of those human-related deaths of birds.

A balanced approach in communities

These twin issues of keeping cats safe and saving bird lives demand a balanced approach, one that respects the nature of each kind of animal and considers the needs of each. Awareness of responsible pet care and how dangerous the outdoors can be for cats, as well as the problems faced by stray and feral cats, is part of the solution. Understanding of the consequences of permitting cats to roam unsupervised, and the need to keep pets and wildlife from interacting, for the benefit of both, is also part of the solution.

Municipalities are responsible for regulating cats, and it's important that municipalities promote positive change for cats and birds for the sake of animal welfare, environmental stewardship, peaceful neighbour relations, and public health. Accessible spay-neuter programs help reduce unwanted litters of kittens; licensing and mandatory identification (tattoos or microchips) help get lost cats back to their owners and thus reduces pressure on shelters; and no-roam bylaws reduce the number of cat-owners who expose their cats to risks outdoors and thus expose wildlife to risks from their cats. Calgary is the gold-standard for cat management in North America. You can [read more about the Calgary approach here](#).

Sources / Read More:

About Keep Cat Safe and Save Bird Lives: <http://catsandbirds.ca/who-we-are>

Cat demographics and shelter statistics: <http://catsandbirds.ca/research/an-update-on-cats-in-canada/>

Outdoor risks for cats: <http://catsandbirds.ca/research/safe-happy-cat/>

Bird Population Declines: <http://catsandbirds.ca/research/the-state-of-na-birds/>

Services Birds Provide: <http://catsandbirds.ca/birds-matter/bird-services/>

Human-Related Threats to Birds / Impact of Outdoor Cats on Birds:

<http://naturecanada.ca/initiatives/save-bird-lives>

<http://catsandbirds.ca/research/estimated-number-of-birds-killed-by-house-cats/>

Municipal Policy Recommendations

<http://catsandbirds.ca/for-municipalities/>
<http://catsandbirds.ca/blog/the-calgary-model/>

Figure 2: Licensing of Cats: article and opinion letters

Licensing of cats part of proposed new animal bylaw in Guelph

Cat owners would have to pay an annual license fee of \$25

NEWS Nov 25, 2016 by [Doug Hallett](#) Guelph Mercury

In 2015, 584 cats were brought in as strays to the Guelph Humane Society. Only 77 of them, or 13 per cent, were reclaimed by their owners.

A wide-ranging new animal control bylaw proposed for Guelph includes a new requirement for licensing of cats, new rules on keeping of poultry and snakes, and a proposal to test the keeping of sheep and goats – to a limit of two on a property – within city limits.

The new report, which goes to a meeting of council's Committee of the Whole on Dec. 5, is the culmination of three years of work by an animal control working group, as well as extensive public consultations.

One of the most contentious issues studied was whether cats should be restricted from running at large, and whether cats should be licensed as dogs already are.

The report recommends cat licensing, with a phased-in approach over the next 13 months to give cat owners the option to voluntarily purchase a licence for their cat in 2017 before it becomes mandatory in 2018.

Cats that are micro-chipped wouldn't need a collar or identification tag, but their owners would have to pay an annual licence fee of \$25. Five dollars from the sale of each cat licence would go to a program that supports cat welfare, the report says.

Although it's not part of the proposed bylaw, city staff are recommending that a review be done on the pros and cons of cats roaming free in the city.

In 2015, 584 cats were brought in as strays to the Guelph Humane Society, said a city news release Friday. Only 77 of them, or 13 per cent, were reclaimed by their owners. The intent of licensing cats is to improve reclaim rates of stray cats in Guelph, said Doug Godfrey, the city's general manager of operations. "The best approach to improving rates is to ensure cats are identified, whether that is through micro-chipping or with a collar and identification tag," Godfrey said in the release. The proposed bylaw would replace four animal control bylaws that currently regulate domestic and exotic animals, as well as poultry, in Guelph.

The long review of animal control, which included four public meetings and an online survey last year, “gave staff an opportunity to tighten up, and in some cases loosen, the rules,” Godfrey said.

The loosening includes a pilot program on keeping sheep and goats in the city.

Staff are recommending an exception to the city’s prohibited animals schedule to allow sheep and goats under certain conditions, including a limit of two animals on a single property. This pilot program, involving up to 12 properties in Guelph, would help staff determine the feasibility of having this exemption become permanent in the bylaw, the release said.

Guelph has allowed poultry within city limits under certain conditions for years, but the new animal control bylaw would add a requirement for registration of chickens, ducks, geese and pigeons. A person with more than one bird would have to register it with the city.

There is to be no limitation on the number of birds kept, but staff are recommending that roosters not be allowed within city limits due to the noise factor.

Snake breeders would also be required to register their snakes, a tracking meant to help emergency services and anyone else who has to enter such a property.

Staff are recommending a one-time registration fee of \$25 for domestic poultry and breeders of reptiles. Because the bylaw could have a financial impact on families that have multiple pets, staff propose consideration of a discount for those with multiple pets, specifically a 25 per cent discount for second and subsequent licenses.

It is also being recommended that a 50 per cent subsidy be authorized, per licence, for any city resident already qualifying for a city subsidy such as the affordable bus pass.

It’s recommended that no maximum number be placed on pet ownership, and that the new bylaw focus instead on animal welfare.

The city would continue to work with the animal control working group to establish a minimum standard of care for animals, a project that received overwhelming support from the community when surveyed in 2015, the release said. Ninety-seven per cent of those who attended a public meeting and 89 per cent of survey respondents said they support the city adopting a code of practice to outline guidelines for the minimal care of animals.

The new report says pet stores should be prohibited from selling cats and dogs, except those put up for adoption by animal shelters.

The draft bylaw includes a clause that would allow burial of animals on private property, but prohibit this on public property.

Another new section of the bylaw addresses the feeding of wild animals. A new restriction would prohibit food being left outside for, or that may attract, wild animals, except for bird seed in appropriate bird feeders.

As for enforcement, the report says city staff don't recommend any major changes in the way animal control issues are enforced.

"The majority of the enforcement will be on a complaint basis, with the exception of increased proactive enforcement of running at large and unlicensed dogs," it says.

The one proposed change in enforcement is to have the Guelph Humane Society help the city's property standards staff in the enforcement of rules related to domestic poultry.

<https://www.guelphmercury.com/news-story/6987499-licensing-of-cats-part-of-proposed-new-animal-by-law-in-guelph/>

Cats are healthier outdoors

OPINION Mar 07, 2017 Guelph Mercury

We are told that cats are healthier indoors. Wrong! Before our current household pets, we had four cats in the past, all outdoor. The oldest was 21 years old when he died, the next two were each 16 years old and the last one, who was a sick rescue from a pet store, was 11 years old. With the exception of the last one, they all attended at the vet only for annual checkups, until the last few weeks of their lives.

In addition to our dog, we presently have three cats. The oldest, from the time she was a kitten, escaped outdoors every chance she could. She goes crazy during the winter months because she can't stay out long.

We have provided her with a place to sleep outside in the summer during the day, and at least three times a day she walks along behind me when I walk our dog, does her business under a large tree, on common area, like dogs do, a habit developed as she was raised for two years by our late border collie.

A couple of years ago, our vet thanked us for bringing him a healthy pet. The second cat rarely goes out, is overweight, and has skin issues. The 11-month-old kitten is desperate to go outside and has become very destructive because we are trying to keep him in.

The oldest cat was given to me by family after my husband died in 2009. She has helped me through my grief, sleeps with me, brings me much joy and we have a great bond.

Joyce Martin

Guelph

<https://www.guelphmercury.com/opinion-story/7177037-cats-are-healthier-outdoors/>

Keep your cats indoors

OPINION Dec 30, 2016 Guelph Mercury

People are arguing how keeping predatory cats indoors would be disastrous to the environment. I mean, imagine a world where all the threatened birds and small animals start to come back. Imagine not having to see several road kills each morning on the drive to work. Heaven forbid.

Cats are not natural predators in Ontario. They have not kept balance, they have unbalanced it. Cats don't kill rats — rats fight back. They will kill animals that

do control the rat population, though. Cats kill small animals in huge numbers each year. Some animals we like, some we don't — there is no discrimination.

So while the city has banned all turtles because one single species can survive and compete with local turtles, they are still allowing cats to roam free to maim or kill the same turtles they wish to protect.

I've taken in many cat rescues over the years — almost all were outdoor strays. They have all quickly adapted to life indoors just fine.

Meanwhile, the local Humane Societies are overrun with cats whose owners are too irresponsible to either claim or fix.

Please, please keep your cats indoors, whether it is the law or not.

Lance Henderson, Rockwood

<https://www.guelphmercury.com/opinion-story/7043088-keep-your-cats-indoors/>

Trees and shrubs protect birds from feline predators

OPINION Dec 30, 2016 Guelph Mercury

Feathers have been flying over the last week as three very plump, brilliantly coloured male birds jump from yews to cedars to my walnut tree and across the road to a neighbour's hedge. They don't distinguish between property lines — much like the cats, raccoons, chipmunks and skunks that also wander this downtown city block (Edinburgh/York/Bristol/Waterloo).

All of these creatures have homes in our gardens, and the people of these gardens expect them to be there.

As all of this nature wanders, children in particular come to understand and expect that life takes many forms. And so living with these creatures shows us both the balance and the cycles of nature — and again we experience how to become more caring and inclusive people.

This new animal control bylaw will result in the incremental divorcing of the people of Guelph from the other life forms living on this land, with the consequence that the city is more sterile. To help birds live full lives — to make the city their home too — then do as the three cardinals and the local hawk are telling us.

Plant dense conifers and other sizable trees around your home and the birds will come.

Trees are birds' homes, roads, food source and their pleasure from where they sing. Trees are the answer to many of the city's problems — not shutting one more form of life away as the city's narrow bylaw wants.

The primary cause of bird population decline is habitat loss, which is easily addressed by wide-scale planting of trees and large shrubs in as many gardens as possible, particularly evergreens.

As I look out my window, these three cardinals continue to ignore my three outdoor cats (17, 15 and 10 years old). The birds' home is the gardens trees, particularly conifers for nesting.

The hawks, who raised their young this spring in the tall spruce next door, will tell you that. They continue circling/hunting for food, and many pigeons and squirrels have and will continue to 'meet' these large birds' food requirements.

Maybe the hawks should be made aware that in five years they too will be banned!

Martin Ford

Guelph

<https://www.guelphmercury.com/opinion-story/7043085-trees-and-shrubs-protect-birds-from-feline-predators/>

A pending cat-astrophe in Guelph

OPINION Dec 15, 2016 Guelph Mercury

I was amazed to read on the front page in your Dec. 8 edition that I may be harbouring a possible future criminal in my house.

I was further amazed to turn to Page 4 and read about the new looser rules for keeping chickens.

Is one allowed to ask if the powers that be own any outdoor cats? Would they be willing to share how they will be keeping their outdoor cat in the house?

I am afraid that when I discussed the matter with my cat, she was definitely not in favour of it.

In fact, if she had her way, Guelph city council would be banned from authorizing bylaws that discriminate against her species, while adjusting guidelines that are more beneficial to the new politically correct pet, the chicken.

Waiting in limbo and hoping clearer heads prevail.

Elaine and Kit Batt

Guelph

P.S. The chicken was quite happy with the new guidelines. At least, until the cat commented that it too had once been a politically correct pet.

<https://www.guelphmercury.com/opinion-story/7022034-a-pending-cat-astrophe-in-guelph/>

Figure 3: Four Corners Cards

**STRONGLY
AGREE**

**STRONGLY
DISAGREE**

AGREE

DISAGREE

LESSON 2: THE GREAT DEBATE (CORE)

Summary:

Students use the information they've learned in previous lessons to formulate a stance on the issues involving domestic cats and wild birds, and to prepare and participate in a debate.

Central Questions:

- How does understanding the broader context, along with awareness of the range of stances about allowing cats roam unsupervised outdoors, help us communicate with people about the issues around domestic cats and wild birds?
- How do people's individual pet care practices relate to the overall cat overpopulation problem? To the need for communities to introduce bylaws limiting outdoor cats? To the overall decline in wild bird populations?
- How do we, as a society, balance the needs of individual cats with the needs of the whole domestic cat population? The community? The environment, especially wild birds?

By the end of this lesson students will:

- objectively look at various stances regarding the cat and birds issue;
- prepare and participate in an oral debate;
- formulate personal stances based on evidence to answer whether or not individuals and communities should adopt practices and policies to ensure the safety of cats *and* protect wild bird populations from decline, within the context of building healthy communities.

Subject(s):

- Language
- Social Studies
- Science

Suggested Time frame:

- Two to three 45 minute periods for research, prep, and oral debate

Materials:

- Debate Prep worksheet (Figure 4)

Background Information:

In Canada, there were an estimated 261,000 cats left in shelters in 2016 for whom no homes could be found. In addition, there estimated to be 1.4 to 4.2 million homeless or feral cats not in shelters. At the same time, our bird populations are declining, particularly songbirds. Some species have declined as much as 60 to 90%.

Helpful links:

- <http://catsandbirds.ca/for-municipalities>
- <http://catsandbirds.ca/blog/the-calgary-model/>

- <http://catsandbirds.ca/blog/the-importance-of-fixing-your-cat/>
- https://www.cfhs.ca/cats_in_canada_2017
- https://www.cfhs.ca/uniting_for_cats_and_birds
- <http://www.birdscanada.org/education/tophelp.jsp>
- <http://stewardshipcentrebc.ca/cats-and-birds/>
- <https://quebecoiseaux.org/index.php/fr/deschatsdesoiseaux>
- <http://cwrc.net/cms2/wp/free-roaming-cats/>
- <https://www.catnapsociety.com/>

Alternative viewpoints:

- <http://www.vetstreet.com/dr-marty-becker/why-my-cats-live-outdoors-but-yours-should-stay-in>
- <https://www.mercurynews.com/2017/01/13/indoor-or-outdoor-the-debate-rages-on-cats/>
- https://www.washingtonpost.com/news/animalia/wp/2016/09/02/cats-are-bird-killers-these-animal-experts-let-theirs-outside-anyway/?utm_term=.710dfa01103a

Instructions:

1. Create groups with four students per group. Ask each group to choose one of the statements from Lesson 1: Cats and Birds: What's the Issue? (also below) as the topic for their debate, preferably one on which a variety of opinion was expressed.
 - a. Cats need the freedom to roam unsupervised outside
 - b. Letting a cat roam unsupervised outdoors puts them in danger
 - c. Birds are important as they are integral to healthy ecosystems and provide ecosystem services
 - d. Bird populations are not seriously affected by cats
 - e. There is a serious problem of feral cat overpopulation in many Canadian communities
 - f. Spaying or neutering cats is important
 - g. Communities should enact bylaws to require citizens to supervise their cats outside
 - h. It is only natural for cats to hunt birds
 - i. Most cats in shelters are reclaimed by their owners or adopted
 - j. We should treat cats the same level of care as dogs
 - k. Cats should be licenced and identifiable (with collar, tattoo, or microchip), the same as dogs
 - l. Protecting birds by keeping cats from roaming unsupervised is part of protecting the environment.
2. Within each group, ask students to designate a pair of students who will debate in support of the statement and a pair against it.
3. Ask each pair to use what they have learned, researching as necessary, to determine at two to four points and the evidence to support each point. If desired, provide the worksheet (Figure 4) to help students organize their thoughts.
4. Guide students to think about what makes a convincing argument, the importance of addressing different opinions about the issue, etc.
5. As needed, provide an overview of the debate process and etiquette.

6. Once both the “for” and “against” students have completed the worksheet, ask pairs within each group to trade their worksheet so each can formulate their rebuttal.
7. Set a time for each group to debate, allocating 15 minutes per group (approximately three minutes per student). Encourage students to practice presenting their arguments in a persuasive way, while using a variety of speaking strategies.
8. After the debates, repeat the initial Four Corners exercise from Lesson 1 to determine whether any opinions were changed over the course of the lessons.
9. Wrap-up by asking students to write a summary statement of their current stance on whether or not individuals and communities should adopt practices and policies to ensure the safety of cats *and* protect wild bird populations from decline, within the context of building healthy communities.



Figure 4

The Great Debate

Tackling a Difference of Opinion

Argument 1	Evidence in support of this argument
Argument 2	Evidence in support of this argument
Argument 3	Evidence in support of this argument
Argument 4	Evidence in support of this argument
Other position argument 1	Evidence to refute this argument
Other position argument 2	Evidence to refute this argument
Other position argument 3	Evidence to refute this argument
Other position argument 4	Evidence to refute this argument

LESSON 3: DATA AND PROOF (OPTIONAL)

Summary:

Students graph shelter statistics data from the Canadian Federation of Humane Societies (CFHS) and analyze the results.

Central Questions:

- Are the outcomes for lost cats and lost dogs in Canadian animal shelters different?
- Why is this information important if we want to reduce the number of cats in animal shelters?

By the end of this lesson student will:

- use data on animals in shelters from the CFHS to construct a set of broken line graphs;
- analyze the graph and interpret the trend;
- using the evidence, make a convincing argument for responsible pet ownership.

Subject(s):

- Math

Suggested time frame:

- One 45-minute period

Materials:

- Printouts of Shelter Statistics Data from CFHS (Figure 5, or from www.cfhs.ca/animal_shelter_statistics_report)
- Organize the Data worksheet (Figure 6)
- Graph paper (Figure 7)
- Data Analysis worksheet (Figure 8)
- Ruler

Background Information:

Helpful links:

- <http://catsandbirds.ca/research/an-update-on-cats-in-canada/>
- <http://catsandbirds.ca/blog/the-cat-contradiction/>
- <http://catsandbirds.ca/blog/wheres-that-lost-cat/>
- <http://catsandbirds.ca/research/wildlife-rehabilitation-study/>
- <http://catsandbirds.ca/blog/isnt-it-natural-for-my-cat-to-hunt/>

Instructions:

1. Provide students with the Shelter Statistics Data (Figure 5), Organize the Raw Data worksheet (Figure 6), graph paper (Figure 7), and Data Analysis worksheet (Figure 8). Optional: put the Shelter Statistics Data (Figure 5) on display where the whole class can see them.
2. Ask students to fill out the Organize the Raw Data worksheet to assess the difference in outcomes for dogs and cats in animal shelters.
3. Using the statistics on the Shelter Statistics Data (Figure 5) ask students to make 3 separate graphs complete with labels, title, and legend, one for each answer on their data sheet.

4. Once students have finished their graphs, they can analyze the data by answering the questions on the Data Analysis sheet.
5. Lead a discussion, encouraging students to share their suggestions to prevent overpopulation of cats using their graphs as evidence. Discuss how wild bird populations will benefit from this decline in outdoor cats.

The CFHS Shelter Statistics report can also be found here: www.cfhs.ca/animal_shelter_statistics_report



Figure 5: CFHS 2015 Animal Shelter Statistics
www.cfhs.ca/animal_shelter_statistics_report

Appendix

Aggregate total number of animals reported by survey respondents

	5,452	1,853	1,121	8,426
TOTAL*	82,436	35,550	14,142	139,433
Fraction Juvenile	38%	18%		
Stray	39,340	15,830	2,919	58,089
Surrendered by Guardian	22,218	10,043	4,437	36,698
Cases of Abuse	1,347	1,136	2,909	5,604
Transfers	10,838	4,949	1,500	17,287
Born	1,280	297	445	2,022
Adopted	50,275	17,782	6,163	74,220
Transfers	5,818	2,728	1,916	10,462
Returned to Guardian	4,389	10,855	267	15,511
Returned to Guardian / Stray	11%	69%		
Feline Returned to Field	1,471			
Total Shelter Euthanasia*	15,341	2,820	2,816	20,977
Healthy	759	39	1,092	1,890
Unhealthy and Untreatable	7,549	2,034	1,329	10,912
Owner-requested**	2,202	1,606	234	4,042
Died in care	1,621	301	345	2,267
Lost in care	77	14	21	112
	4,792	1,674	2,074	8,540
Number of animals spayed/neutered while at the shelter	29,412	8,888	997	39,297
Number of owned animals spayed/neutered	15,400	4,120	38	19,558

* Note that the totals reported may not necessarily be the exact sum of the other categories

** Owner-requested euthanasia is not included in total shelter euthanasia

Figure 6

ORGANIZE THE RAW DATA

Organize the raw data from the Canadian Federation of Humane Societies.

Using the data, complete 3 separate graphs that show:

1. The TOTAL INTAKE of cats compared to dogs and “other” (which can include animals like rodents, rabbits, snakes, and reptiles).
2. The difference in INTAKE OF STRAY ANIMALS between cats and dogs.
3. The various outcomes for all options within OUTCOMES, including adopted, transfers, returned to guardian, and euthanasia for both cats and dogs.

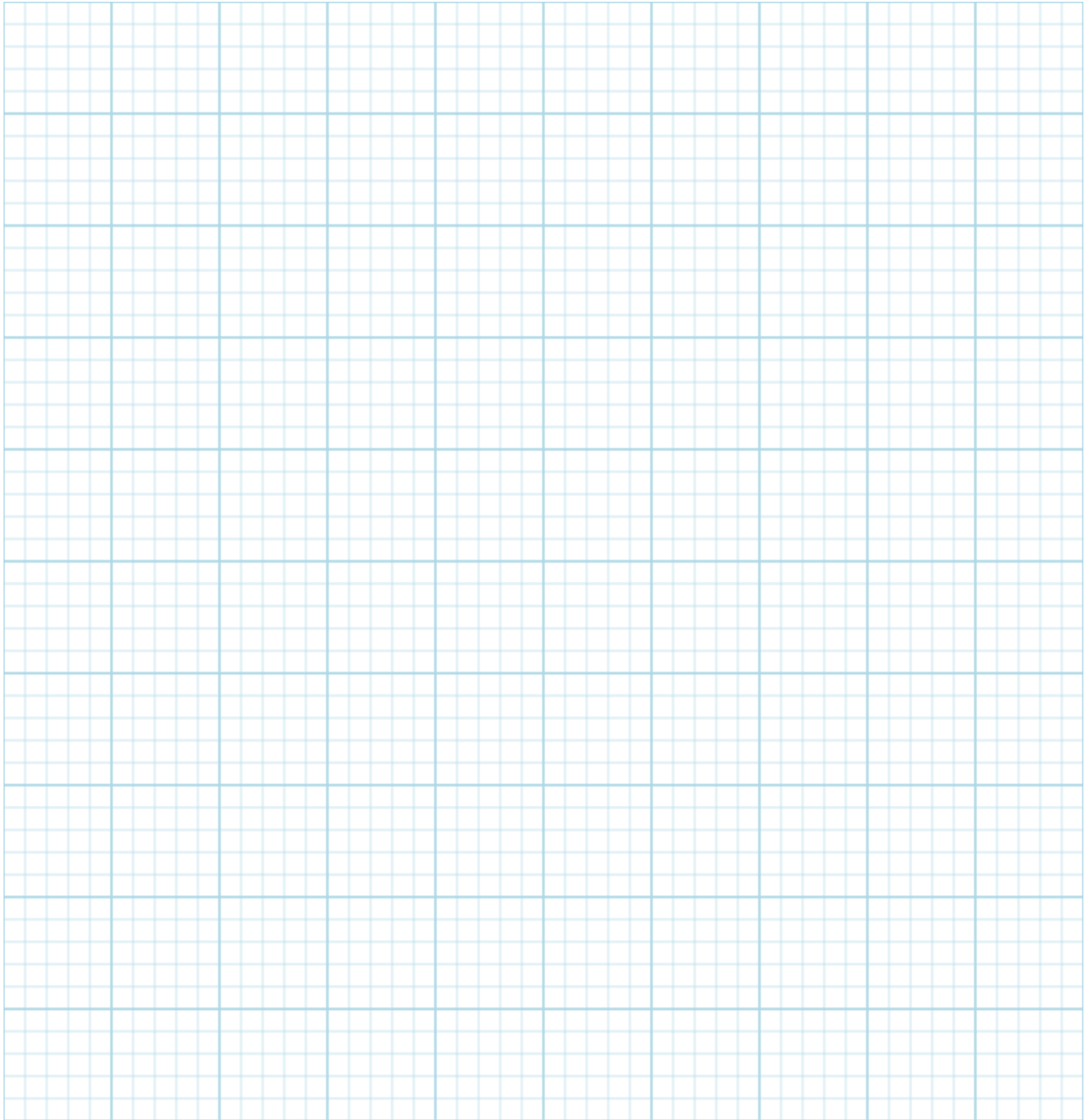
Organize your data:

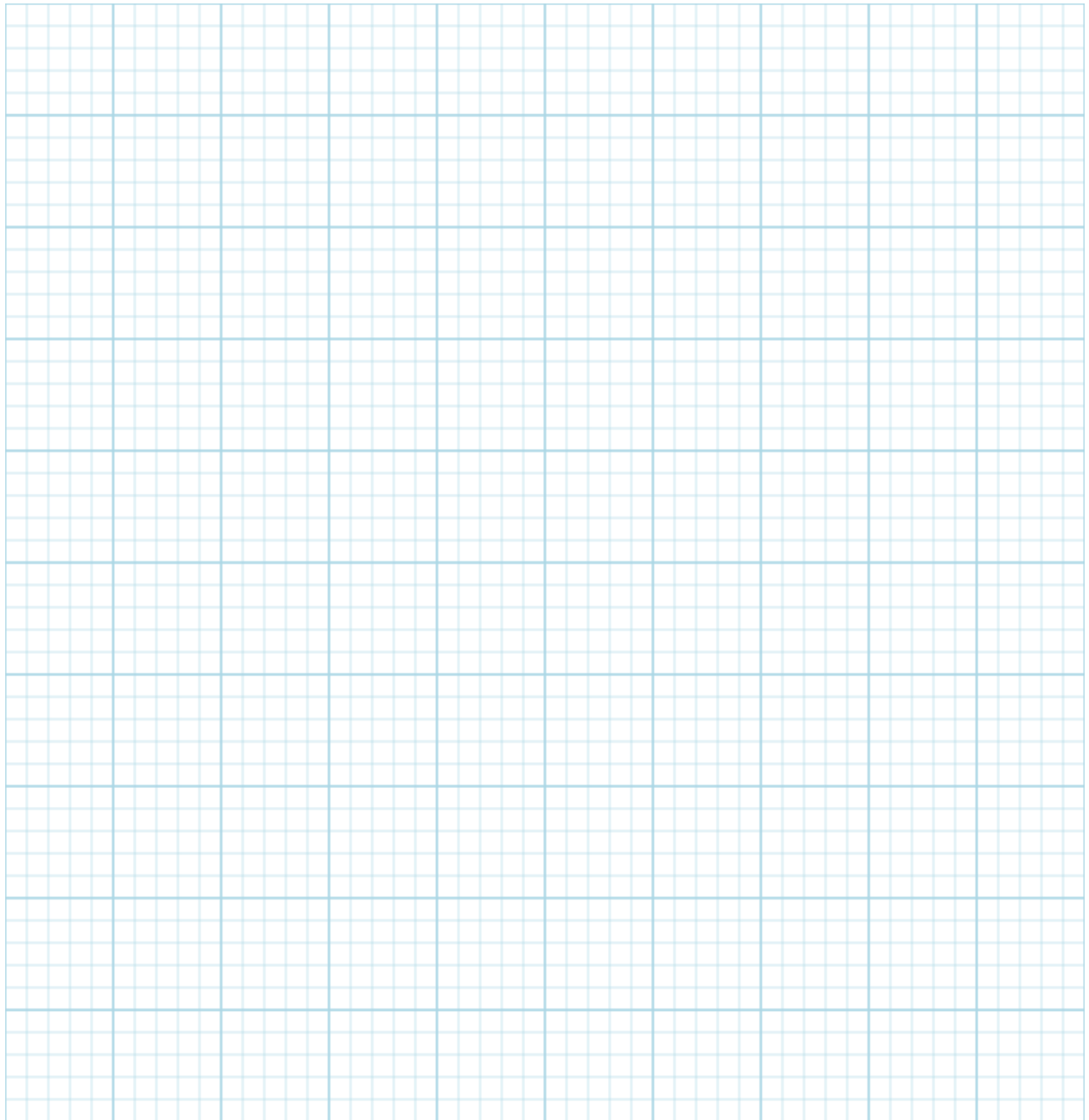
Total Intake of Sheltered Animals 2015 CFHS		
Cats	Dogs	Other

Intake of “Stray” Animals 2015 CFHS	
Cats	Dogs

Outcomes for Cats and Dogs 2015 CFHS		
	Cats	Dogs
Adopted		
Transferred		
Returned to Guardian		
Euthanized		

Figure 7: Complete the appropriate variety of graph for each data set. Remember to include labels, title, and a legend.





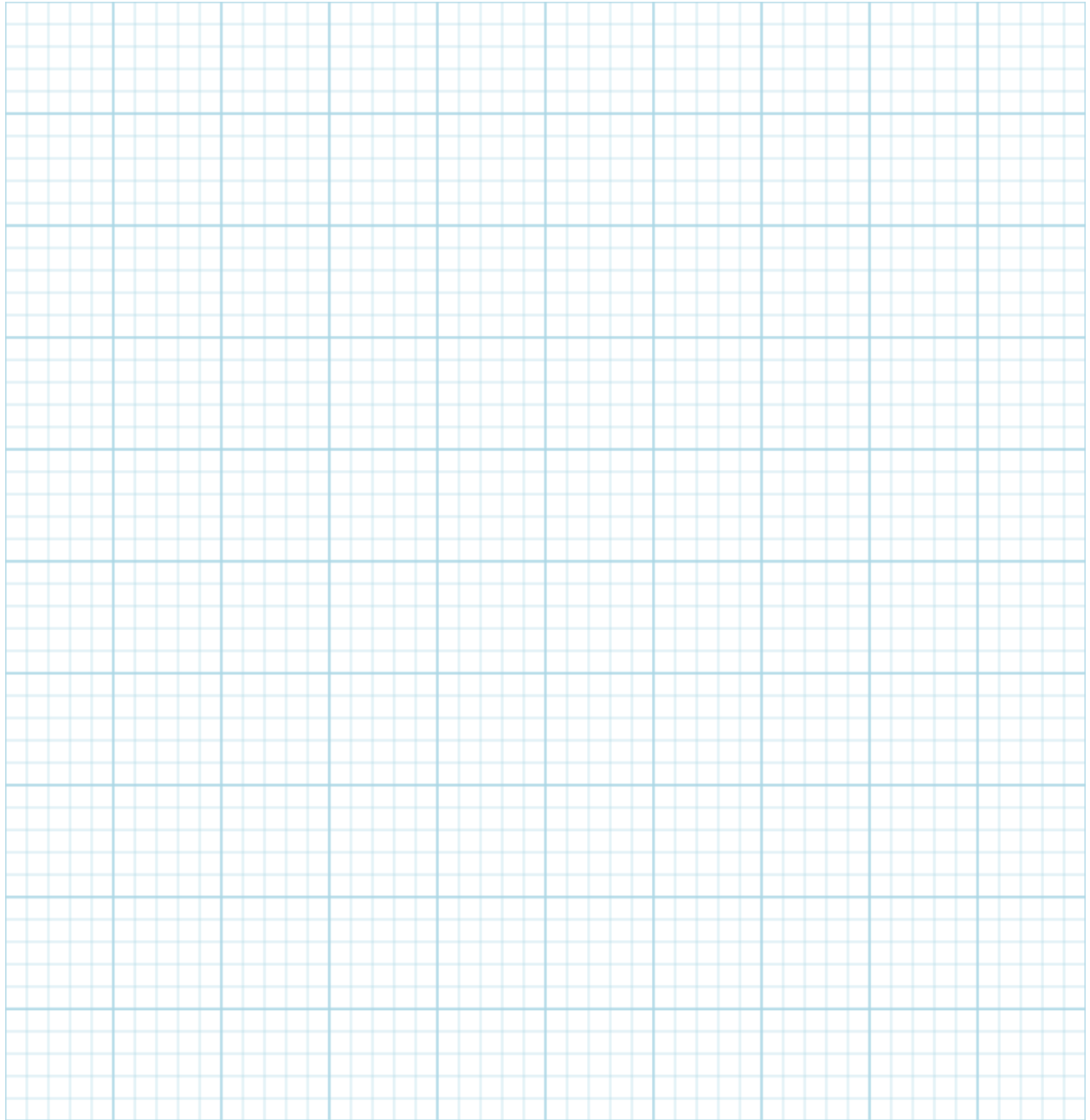


Figure 8

Data Analysis

What do the graphs tell us?

What could be some of the explanations for why the number of cats returned to their owners are so much lower than the number of dogs returned to their owners?

How can these graphs be used to present an argument to be a responsible cat owner by preventing cats from roaming unsupervised outdoors and or spaying or neutering cats?

Using the graphs you have created, focus on one suggestion to prevent overpopulation of cats, and make direct reference to your graphs. Then, describe how wild bird populations will benefit from this decline in unsupervised outdoor cats (both stray and feral cats).

LESSON 4: POPULATION MATH (OPTIONAL): Using Exponents & Fractions to Explore Cat Reproduction

Summary:

Students engage in a math exercise using exponents to demonstrate the potential rate of reproduction of cats and discuss the impact of overpopulation of cats.

Central Questions:

- What factors contribute to the situation of cat overpopulation and over-crowded cat shelters?
- Does cat overpopulation impact wild bird populations?
- How does spaying and neutering cats help address cat homelessness and feral cat populations?

By the end of this lesson students will:

- understand the consequences of not of spaying and neutering cats;
- understand the connection between cat overpopulation and impact on wild bird populations.

Subject(s):

- Math

Suggested time frame:

- 30 minutes

Materials:

- Population Math Exponents worksheet (Figure 9)
- Scientific calculator

Background Information:

- <http://catsandbirds.ca/blog/the-importance-of-fixing-your-cat/>
- <http://catsandbirds.ca/blog/spay-neuter/>
- <http://catsandbirds.ca/blog/the-cat-contradiction/>

Instructions:

1. Print sufficient copies of the Population Math Exponents worksheet (Figure 9) for your class. (Answer key appears below.)
2. Distribute to the students and ask them to complete the word problems.
3. Upon completion, ask the students what surprised them about the numbers they calculated.
4. Discuss what would be the impact on cat overpopulation, over-crowding of animal shelters, and bird populations if Smokey's kittens had been spayed or neutered?

Answer Key:

Year 1: 3 kittens x 3 litters

$$= 3^2$$

= 9 kittens

female kittens

$$= 9 \times \frac{2}{3}$$

$$= 6$$

Year 2: 6 females from year 1 + Smokey = 7 females

$$= 7 \text{ females} \times 2 \text{ litters} \times 2 \text{ kittens}$$

$$= 7 \times 2^2$$

$$= 7 \times 4$$

$$= 28 \text{ kittens born in year 2}$$

New female kittens

$$= 28 / 2$$

$$= 14$$

total female cats

$$= 14 \text{ new kittens} + 7 \text{ females}$$

$$= 21$$

Year 3: Smokey + 6 female kittens from year 1 + 14 females from year 2

$$= 21 \text{ females} \times 2 \text{ litters} \times 2 \text{ kittens}$$

$$= 21 \times 2^2$$

$$= 21 \times 4$$

$$= 84 \text{ kittens born in year 3}$$

New female kittens

$$= 84 / 2$$

$$= 42$$

Year 4: Smokey + 6 female kittens from year 1 + 14 females from year 2 + 42 females

from year 3

$$= 63 \text{ female cats} \times 3 \text{ litters} \times 3 \text{ kittens}$$

$$= 63 \times 3^2$$

$$= 63 \times 9$$

$$= 567 \text{ kittens born in year 4}$$

Figure 9

Population Math

Using Exponents & Fractions to Demonstrate Cat Reproduction Rates

Smokey was not spayed when she was a kitten. Female cats have on average 1-2 litters per year (up to 3 in warmer climates) with an average of 3-5 kittens per litter.

Year 1: Smokey has 3 separate litters of kittens. Each litter has 3 kittens, two females and one male in each litter. What is the total number of cats at the end of the year? What is the total number of female cats at the end of the year? Express this equation. Solve the equation.

Year 2: Each **female** cat (including Smokey) has 2 litters of 2 cats each, with one male and one female in each litter. How many kittens are born in year 2 in total? How many female cats are there now, in total? Using an exponent, express this equation, then solve the equation.

Year 3: Each female cat (including Smokey, her kittens and their kittens) has 2 litters of 2 kittens, half female and half male. How many kittens are born in Year 3? How many are female?

Year 4: Each female cat (including Smokey Cat and all of the subsequent kittens) has 3 separate litters of kittens in one year. Each litter has 3 kittens. How many kittens are born in Year 4?

LESSON 5: ENVIRONMENTAL IMPACT ASSESSMENT OF CATS IN A COMMUNITY

Summary:

Students research the environmental impact of cats and complete a simplified assessment to evaluate interactions and make recommendations for going forward.

Central Questions:

- What does an Environmental Impact Assessment tell us about the effects of cats that roam outdoors unsupervised have on populations of cats, birds and humans?
- Can Environmental Impact Assessments help call attention to issues that still need to be addressed?

By the end of this lesson students will:

- complete a modified impact assessment on a variety of perspectives regarding the cat and birds issue;
- understand how science can play a role in areas of society such as policy making, government, and environmental conservation;
- become aware that choices made by a cat owner or community can have lasting positive or negative impacts on a variety of species;
- understand the importance of making thoughtful decisions as a cat owner and/or bird ally.

Subject(s):

- Science
- Social Studies

Suggested Time Frame:

- One 45 minute period

Materials:

- Impact Assessment worksheet (Figure 10)
- Internet access

Background Information:

Environmental Impact Assessments are evaluations that many scientists involved in policy decision use to assess the effectiveness of a certain policy on a science-based concept.

Helpful links:

- <http://catsandbirds.ca/backgrounders/save-bird-lives/>
- <http://catsandbirds.ca/blog/keep-cats-safe>
- <http://catsandbirds.ca/build-healthy-communities>
- <http://catsandbirds.ca/blog/get-your-new-cat-from-a-shelter/>
- <http://catsandbirds.ca/blog/the-importance-of-fixing-your-cat/>
- <http://catsandbirds.ca/blog/bird-services/>

Instructions:

1. Ask students to identify actions of people that pertain to the cats and birds issue. List on board, including “allowing cats to roam unsupervised”, “keeping cats engaged indoors”, “adopting cats from shelters”, and “spaying or neutering cats” as examples.
2. Ask students to complete the modified environmental Impact Assessment worksheet (Figure 10), including additional issues that they identified.
3. As needed, students can research the impact of the action further. Some useful articles can be found on the Cats and Birds website:
<http://catsandbirds.ca/backgrounders/save-bird-lives/>
<http://catsandbirds.ca/blog/keep-cats-safe>
<http://catsandbirds.ca/build-healthy-communities>
<http://catsandbirds.ca/blog/get-your-new-cat-from-a-shelter/>
<http://catsandbirds.ca/blog/the-importance-of-fixing-your-cat/>
<http://catsandbirds.ca/blog/bird-services/>
4. Upon completion, lead a class discussion outlining ideas such as:
 - a. Who benefits from each action listed on the Impact Assessment?
 - b. Who has the most responsibility for this action?
 - c. Are there any actions you think are missing?
 - d. If you were a lawmaker, politician, or authority figure, what action would you recommend be the focus?

Accommodations for alternate learners:

Students can complete this sheet in a group of 2 or 3, or you can go through the impact assessment as a class.

Figure 10



IMPACT ASSESSMENT



Action	Impact	Positive or negative impact	Impacted Party
Letting cats roam unsupervised	Cats are natural hunters, and because of this hunt birds when they are let outdoors unsupervised	-Negative impact to the migratory song birds as it can result in their death, contributing to the overall decline in their population, biodiversity and health of ecosystems. -Potential negative impact on the cat if it gets hit by a car.	Cats, birds, and humans
Keeping cats engaged indoors			
Adopting cats from shelters			
Spaying or neutering cats			

LESSON 6: BOTH SIDES OF THE TAIL: Keep your cats safe or let them roam unsupervised?

Summary:

Students identify viewpoints regarding cats that roam unsupervised and then research possible practices to keep cats safe and the potential impact on the community.

Central Questions:

- What are the pros and cons of permitting cats to roam outdoors unsupervised (stray)? To keeping cats indoors (safe)?
- What are some of the ways to address concerns about exposing cats to risk from outdoor dangers, and reducing risks to wild birds from cats?

By the end of this lesson students will:

- research the question of whether permitting cats to roam outdoors unsupervised (stray) or not is the best for cats;
- identify practices individuals and communities have made to make their communities more sustainable and safer for cats and wild birds.

Subject(s):

- Social Studies

Suggested time frame:

- One 45 minute period

Materials:

- Internet access
- Both Sides of the Tail worksheet (Figure 11)

Background Information:

The good news is that 72% of Canadians already keep their cats from roaming outdoors unsupervised, according to recent research from the Canadian Federation of Humane Societies. Of the cat owners that do allow their cats outdoors, some do so because they worry that their cats will get bored, be unhappy, or not get enough exercise if kept indoors.

- <http://catsandbirds.ca/research/an-update-on-cats-in-canada/>
- <http://catsandbirds.ca/about/>
- <http://catsandbirds.ca/blog/kitty-cam-part-ii/>
- <http://pets.webmd.com/cats/features/should-you-have-an-indoor-cat-or-an-outdoor-cat#1>
- <http://catsandbirds.ca/research/safe-happy-cat>
- <http://catsandbirds.ca/research/dealing-with-escape-artists/>
- <http://catsandbirds.ca/research/cat-enclosures-and-catios/>
- <http://www.vetstreet.com/dr-marty-becker/why-my-cats-live-outdoors-but-yours-should-stay-in>
- <https://www.mercurynews.com/2017/01/13/indoor-or-outdoor-the-debate-rages-on-cats/>
- https://www.washingtonpost.com/news/animalia/wp/2016/09/02/cats-are-bird-killers-these-animal-experts-let-theirs-outside-anyway/?utm_term=.710dfa01103a
- <http://www.onegreenplanet.org/animalsandnature/indoors-versus-outdoors-cats-is-one-really-better-than-the-other/>

Instructions:

1. Ask students to identify different viewpoints on whether it's better to keep cats that are pets indoors, outdoors only if supervised, or allow them to roam outdoors unsupervised (stray). Here are some suggested sites:
 - <http://catsandbirds.ca/about/>
 - <http://catsandbirds.ca/blog/kitty-cam-part-ii/>
 - <http://pets.webmd.com/cats/features/should-you-have-an-indoor-cat-or-an-outdoor-cat#1>
 - <http://www.onegreenplanet.org/animalsandnature/indoors-versus-outdoors-cats-is-one-really-better-than-the-other/>
 - <http://www.vetstreet.com/dr-marty-becker/why-my-cats-live-outdoors-but-yours-should-stay-in>
 - <https://www.mercurynews.com/2017/01/13/indoor-or-outdoor-the-debate-rages-on-cats/>
 - https://www.washingtonpost.com/news/animalia/wp/2016/09/02/cats-are-bird-killers-the-science-animal-experts-let-their-outside-anyway/?utm_term=.710dfa01103a
2. Discuss as a class whether there are other factors beyond the happiness and well-being of the cat that should be considered when deciding whether to allow a cat to roam outdoors unsupervised. [Other factors might include the cat overpopulation problem, feral cats, stray cats' interactions with neighbours' yards and pets, or stray cats' impact on wild birds and other wildlife.]
3. To identify possible practices or solutions to keep cats safe while ensuring cats get enough stimulation and exercise, provide each student with Both Sides of the Tail worksheet (Figure 11).
4. Ask students to research possible options cat owners can put into practice to keep their cats safe, and also stimulated and exercised. A good site to start with is:
<http://catsandbirds.ca/research/safe-happy-cat> . See also:
<http://catsandbirds.ca/research/dealing-with-escape-artists/>
<http://catsandbirds.ca/research/cat-enclosures-and-catios/>
5. Students can list possible practices on the Both Sides of the Tail worksheet (Figure 11), along with suggestions for ways those actions impact the larger community.
6. There are actions that help neither cats nor birds. Ask students to highlight in green practices that help both cats and wild birds and highlight actions that harm one or both in red or yellow.



Figure 11

Both Sides of the Tail

Keep your cat safe indoors, or let them roam?

Use this chart to list the practices that are suggested for individuals to help keep cats safe and save birds lives. Under “Impact on the Larger Community”, list the impacts of these individual decisions.

Highlight in green the practices that help both cats and birds. Highlight in red or yellow actions (or inaction) that harm one or both of cats and birds. Use examples.

Individual practices	Impact on the Larger Community

LESSON 7: THIS, NOT THAT (Part 1) (OPTIONAL)

Summary:

Teams of students design a device or app to enrich a safe cat's environment and or keep them physically and mentally healthy, or a device or app to help protect wild birds.

Central Questions:

- What are some of the ways to keep a cat safe, entertained and exercised without allowing them to roam outside unsupervised (stray)?

By the end of this lesson students will:

- suggest various ways cats can be engaged indoors;
- access the various technologies and activities that can be helpful or harmful for keeping cats engaged indoors and wild birds safer;
- demonstrate understanding of technology form and function;
- design and construct a physical model;
- evaluate peers' constructions based on several criteria.

Subject(s):

- Science / Technology

Suggested time frame:

- Two 45 minutes periods

Materials:

- This, not That worksheet (Figure 12)
- Best Practices Score Sheet (Figure 13)
- Range of items for creating 3D models of designs (for example, cardboard boxes, popsicle sticks, paper, etc.)
- Scissors
- Duct tape
- Paint/markers/crayons
- Ruler

Background Information:

Some people worry that keeping their cat indoors means that the cat won't get enough exercise, or that it might get bored and have behavioural problems. Are there alternate ways to meet those needs?

- <http://catsandbirds.ca/research/safe-happy-cat>
- <http://catsandbirds.ca/research/dealing-with-escape-artists/>
- <http://catsandbirds.ca/research/cat-enclosures-and-catios/>

Instructions:

1. Group class into teams of three to four students.
2. Ask the teams to research the cat and bird facts from various websites to complete the table below, outlining the various devices and helpful actions recommended to help keep cats safe and save bird lives. Useful sites include:

<http://catsandbirds.ca/safe-happy-cat>

<http://catsandbirds.ca/about>

<http://catsandbirds.ca/blog/does-your-cat-get-enough-exercise/>

<http://catsandbirds.ca/blog/why-not-just-bell-the-cat/>

3. Under “This” on the worksheet (Figure 12), ask teams to list enrichment activities that would help keep pet cats safe and healthy, and under “Not That”, actions that are detrimental to the safety of cats and/or birds as listed on the website. Encourage students to add their own thoughts to the chart of actions that may be helpful or harmful to cats and/or wild birds.
4. Ask students to use their creativity to design (or embellish upon) a technology or device that keeps cats safe and entertained, or that directly protects birds (for example, cat devices could include toys or games, a “catio” or other enclosure, or an app; bird protection devices could include a cat alarm, a collar that alerts birds, or a shield so cats can’t get near the bird feeder).
5. Encourage teams to sketch their design(s) and then draw the final design.
6. Once they have a solid design, they can use materials available to create a 3D model of their device or technology. Alternatively, they can create a visual poster, skit, video, or other means to share their design with the class.
7. Ask groups to present their design to the whole class, including a description of the way it will help solve a specific problem.
8. As a class, discuss criteria for the evaluation of each device or technology using the Best Practices Score Sheet (Figure 13). Students will then evaluate their own design on these criteria and attempt to assess if the design addresses the issue. If appropriate, include concepts explored in the unit covering ergonomic design, structural safety, and other factors including availability of materials, durability, suitability, and cost.
9. Have students evaluate the design on each criterion with a rating of 1-5. Make sure it is clear what the rating scores mean (1 being poor, 5 being exceptional).
10. Tally up the results and, if you wish, share who received the highest score. The folks at Cats and Birds are very interested in seeing your students’ inventions; please share them by emailing them to info@catsandbirds.ca, or posting them on [Facebook.com/takingcareofcatsandbirds](https://www.facebook.com/takingcareofcatsandbirds) or [Twitter.com/safecatsafebird](https://twitter.com/safecatsafebird).

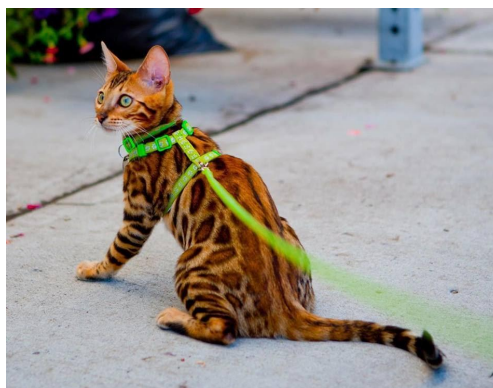


Figure 12

This	not That
• Taking a cat on a walk with a leash, just like a dog.	• Allowing cats to roam unsupervised puts them at risk for predators

Figure 13

This, not That!

Best Practices Score Sheet

Team Name:					
	Poor 1	2	3	4 Exceptional	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5

LESSON 8: THIS, NOT THAT (Part 2) (OPTIONAL): Creating Media Text / Advertisements

Summary:

A group activity in which students develop ways to market the device they invented in This, not That - Part I, and evaluate each other's approach to marketing.

Central Questions:

- How would you advertise the device or technology you have created?
- What method or venue of advertising is best for the device you created?
- How does advertising the solution to a problem contribute to making people aware that the problem exists in the first place?

By the end of this lesson students will:

- outline key reasons why their device or technology is a good product, and why there is a need for their product in real life;
- provide a reasonable explanation as to why they chose their media text;
- prepare a complete and detailed media text to advertise their product;
- understand the basics of advertising using media text.

Subject(s):

- Language (Media texts)

Suggested time frame:

- One 45-minute periods

Materials:

- Invention and/or constructed product from "This, not That" Part I
- Internet access
- Various kinds of art materials (coloured pencils, glue, scissors)

Background Information:

- <http://catsandbirds.ca/blog/does-your-cat-get-enough-exercise/>
- <http://catsandbirds.ca/blog/why-not-just-bell-the-cat/>
- <http://catsandbirds.ca/safe-happy-cat>
- <http://catsandbirds.ca/about>
- <http://www.yourarticlelibrary.com/advertising/7-advertisement-mediums-for-advertising-your-products-with-merits-and-demerits/27985>

Instructions:

1. Keep students in the same teams from This, not That Part I.
2. Ask the teams to research different media for advertisement. You may wish to direct them by suggesting they look at advertisements of products similar to their design.
3. Once they have identified at least 4 different types of media, ask them to consider the benefits of each. Based on their analysis, they decide on which medium they will use to advertise the design they created in "This, not That" Part I. Possibilities include an advertising poster, brochure, radio or T.V. commercial, print advertisement, website, or visual presentation such as powerpoint or prezi.

4. Ask students to research key components of a good advertisement in that medium; you can also choose one medium as a class and brainstorm best practices together. Once each group has a list of attributes that make for success in their specific medium of advertising, they can move forward with creating their own advertisements.
5. Have teams present their product's advertisement, including a description of the various ways in which they tried to achieve best practices and how their invention helps cats and birds.



An ad for Keep Cats Safe & Save Bird Lives published in *Walrus Magazine* encouraging cat owners to let their cats watch birds.
A window perch is like a 24/7 TV show, all for your cat!

LESSON 9: CREATING A COMMUNITY THAT PROTECTS CATS & BIRDS, Pt 1: BYLAWS

Summary:

Students study the cat bylaws in Calgary, AB and complete a worksheet to explore how bylaws can protect both cats and birds.

Central Questions:

- How can bylaws help cats? Wild bird populations?
- How does a community create bylaws that encourage people to keep their cats safe?
- How does a community create bylaws that help protect the wild birds?

By the end of this lesson students will:

- understand what a bylaw is, and how it is different from federal or provincial law;
- understand the various ways in which bylaws can help cats and birds.

Subject(s):

- Social Studies

Suggested time frame:

- One 45 minute period

Materials:

- Access to internet
- Cats and Birds Bylaws! worksheet (Figure 14)

Background Information:

Cities, towns and regions have bylaws, which only affect residents within that certain community. Bylaws are an important part of local government and if well designed and delivered, can effectively keep cats safe, save wild bird populations and build healthier communities.

- <http://catsandbirds.ca/blog/the-calgary-model>
- <http://catsandbirds.ca/for-municipalities/>
- <http://catsandbirds.ca/research/resources-for-municipalities/>

Instructions:

1. Ask students to read about an example of an ideal bylaw and model in Calgary, Alberta at:
<http://catsandbirds.ca/blog/the-calgary-model>
<http://catsandbirds.ca/for-municipalities/>
2. Discuss how the Calgary model is an integrated approach to encouraging citizen compliance with the bylaw, including a “no-roam” component. Also discuss how this model also protects wildlife, specifically wild birds.
3. Ask students to research their local bylaws relating to pets and wildlife. Tip: direct your students to go to the municipal website for your area and search for “animal control”, “pets” and or “cats”.
4. Alternatively, you can download a comprehensive resource on the Cats and Birds website that outlines various aspects of bylaws that municipalities use to manage cats. This information may need to be explained to your students in further detail as it is designed for an adult audience.

You can find the presentation at:

<http://catsandbirds.ca/research/resources-for-municipalities/>

Figure 14

Cats and Birds and Bylaws!
Exploring actions and legislation
to solve the issues surrounding cats and birds.

What is a Bylaw?	What is an example of a bylaw that relates to keeping cats safe and saving bird lives?
What is an example of a city that has adopted one of these bylaws?	What does this bylaw mean for responsible cat owners and other residents?
How does the bylaw studied prevent problems for cats and/or birds?	How could this bylaw help in other areas of the country? The world?

LESSON 10: CREATING A COMMUNITY THAT PROTECTS CATS & BIRDS, Pt 2 (OPTIONAL)

Summary:

After comparing their local bylaw with the Calgary model, students write a letter to their local government about how the community could improve the bylaws about cats and birds, with an option to include a town hall role play.

Central Questions:

- How can citizens encourage their local governments to improve bylaws?

By the end of this lesson students will:

- be introduced to the components of a formal letter;
- have organized, planned, written, edited and proofread a letter;
- be introduced to the role citizens play in municipal policy;
- use their understanding of how various bylaws and personal actions can create a more sustainable community for cats, birds and people alike;
- learn key components of town hall meetings and how these can be useful for citizens to express their concerns.

Subject(s):

- Language
- Social Studies

Suggested time frame:

- One 45-minute period; two 45-minute periods if Town-Hall included

Materials:

- Letter Organizer worksheet (Figure 15)
- Final Letter (Figure 16)
- lined paper and envelopes

Background Information:

Learn more: catsandbirds.ca/take-action

Instructions:

If you choose to include the “Town Hall” Meeting:

1. Start by setting a date for your “Town Hall” meeting and letting your students know that the information they researched during the municipal bylaw activities will be used in this activity. Introduce the format of a town hall meeting and brainstorm with students about the types of questions concerned citizens might ask.
2. Organize students into two groups: “Politicians” and “Citizens”. “Citizens” should represent different points of view, including cat-owners who let their cats roam

unsupervised and cat-owners who think cats need to be kept inside or supervised if outdoors.

3. The teacher will be the moderator for the discussion.
4. Provide time for the “Politicians” to prepare a short presentation introduce the key points of their bylaw in their municipality (based on the Calgary model).
5. Provide time for “Citizens” to develop questions to ask about aspects that concern them, such as the welfare of the cats who aren’t allowed to go outside, or the welfare of wild birds that get hurt by stray cats, etc.
6. Alternatively, brainstorm questions as a class prior to the actual meeting.
7. During the town-hall meeting, “Politicians” present for an allotted time, followed by “Citizens” questions.
8. Once the discussion is completed, debrief with both sides on the experience and reflect on how a seemingly simple issue can involve many varying concerns and opinions.

For the formal letter:

1. Using the information gathered in Part I while studying the Calgary model, ask students to complete the Letter Organizer worksheet (Figure 15).
2. Alternatively, discuss as a class and ask students to make notes in the worksheet.
3. Ask students to complete the formal letter outline page.
4. Students can then complete a “good copy” on a separate sheet of paper using the template as a guide.
5. Once it’s finished you can send it to your local municipality office and or councillors.

Alternatives:

1. If your local bylaw resembles the Calgary model, ask the students to identify any possibilities for improvement, including how the municipality encourages compliance and communicates about the bylaw.
2. If your local bylaw is very similar to the Calgary model, ask the students to write a letter supporting the bylaw and model.

Figure 15

A letter to your Elected Official!

Letter Organizer

Greeting, Introduction, and Purpose of Letter

Why Keeping Cats Safe and Saving Bird Lives is important
An example of a bylaw

Why you would like to see a bylaw in your community

Closing and signature

Figure 16

Your final letter!

The diagram illustrates the structure of a letter with five main sections, each represented by a rectangular box and labeled with an arrow:

- Heading:** A box at the top right, with an arrow pointing to it from the label "Heading".
- Greeting:** A box on the middle left, with an arrow pointing to it from the label "Greeting".
- Body:** A large box in the center, with an arrow pointing to it from the label "Body".
- Closing:** A box at the bottom left, with an arrow pointing to it from the label "Closing".
- Signature:** A box at the bottom left, below the closing box, with an arrow pointing to it from the label "Signature".

LESSON 11: BYLAW TALK: Exploring Legislation to Solve the Issues for Cats & Birds (OPTIONAL)

Summary:

Students explore the role of municipal legislation in solving the issues for cats and wild bird populations, how bylaws can make a community more sustainable, and how such bylaws can affect communities in other countries along birds' migratory routes.

Central Questions:

- Why do municipalities need to get involved in solving the issues for cats and wild bird populations?
- What are the challenges for municipalities trying to introduce regulations governing the owners of cats?
- How do local bylaws that control cats affect other communities in Canada? In other parts of North and South America?

By the end of this component students will:

- understand and identify several ways communities can become more sustainable through cat bylaws;
- understand ways a responsible cat owner can protect their cats and migratory birds by adhering to various practices;
- connect how bylaws imposed in their communities can drastically affect communities in other parts of the world through interrelationships.

Subject(s):

- Social Studies
- Science

Suggested Time Frame:

- One 45 minute period

Materials:

- *Reducing the Impact of Cats on Birds and Wildlife: Recommended Policies and Bylaws* document or internet access (document can be downloaded from <http://catsandbirds.ca/research/resources-for-municipalities/>)
- Bylaw Talk worksheets (Figure 17)

Background Information:

- <http://catsandbirds.ca/research/resources-for-municipalities/>
- <http://catsandbirds.ca/wp-content/uploads/sites/3/2015/10/Reducing-the-Impact-of-Cats-on-Birds-and-Wildlife-Recommended-Policies-and-Bylaws-Canada-Final.pdf>
- <http://www.birdlife.org/worldwide/programme-additional-info/migratory-birds-and-flyways>

Instructions:

1. Organize students into small groups and provide each group with a Bylaw Talk worksheet (Figure 17) and a copy of the Recommended Bylaws or access to the document on the Cats and Birds website.

<http://catsandbirds.ca/wp-content/uploads/sites/3/2015/10/Reducing-the-Impact-of-Cats-on-Birds-and-Wildlife-Recommended-Policies-and-Bylaws-Canada-Final.pdf>

2. Ask each group to pick (or assign each group) one bylaw from the document as an example to use to complete Bylaw Talk worksheets (Figure 17).
3. Once students have completed their charts, have each group present their chart to the class.
4. After the presentations, have student look at a migratory flyway map, such as one found here: <http://www.birdlife.org/worldwide/programme-additional-info/migratory-birds-and-flyways>
5. Ask students to think how the bylaw they just organized in a chart might benefit another community along the flyway.
6. Ask students as a group to pick two geographic locations that they think would benefit from a bylaw in a Canadian community, and what these benefits would look like.

Migrating Snow Geese



Figure 17

Bylaw Talk

Exploring actions and legislation
to solve the issues for cats and birds.

Issue	
Bylaw that would address the issue	
Challenges (disadvantages)	
Opportunities for Success (advantages)	

LESSON 12: USING MEDIA TEXTS TO SUPPORT A CONSERVATION INITIATIVE (OPTIONAL)

Summary:

Students analyze Margaret Atwood's *Angel Catbird* as a sample of a media text written in support of a conservation initiative, and plan, create and evaluate their own media texts.

Central Questions:

- How does a media text such as the graphic novel *Angel Catbird* by Margaret Atwood contribute to educating the public on the issues for cats and birds?
- What other media texts could be useful and effective?

By the end of this lesson students will:

- understand key messages delivered throughout the graphic novel *Angel Catbird* by reading and reviewing the ways in which the novel communicates ways to take better care of our cats and protect our birds;
- establish ideas on how media text can be both informative and fun;
- create an alternative media text to suit a specific audience, topic, and purpose surrounding the issues around cats and birds.

Subject(s):

- Language / English

Suggested Time Frame:

- Three 45 minute periods (for research, planning, and creation)

Materials:

- *Angel Catbird* graphic novel
- Media Text Evaluation worksheet (Figure 18)
- Your Media Text Creation worksheet (Figure 19)

Background Information:

<http://catsandbirds.ca/media/angel-catbird-highlights-dangers/>

<http://catsandbirds.ca/blog/margaret-atwood-on-cats-birds/>

<http://catsandbirds.ca/blog/angel-catbird-volume-2/>

<http://catsandbirds.ca/blog/the-catbird-roars/>

Accommodations for alternate learners:

- Instead of having students work individually, you can put them into groups of three or four for this activity, or complete it as a class. If you decide to do it as a class, choose a type of media text to create. Review what makes this type of media text effective in this scenario, the purpose of the media text, and the audience for it.
- After you establish your purpose, audience, and variety of media text, students can take on research, planning, and creation of their text in groups or as a class.

Instructions:

1. Have students complete the first page of the Media Text Evaluation worksheet (Figure 18), exploring *Angel Catbird* as an alternative media text, individually, in a group, or as a class.
2. Discuss the findings of this worksheet as a class and introduce the next page of the worksheet, in which students will create their own media text for Keep Cats Safe and Save Bird Lives.
3. Once students have created their own media text, distribute the evaluation sheets (Figure 19) to the class. Ask each student or group to present their media text to the class and instruct students to fill out their evaluation form for each presentation.
4. Once the presentations are complete, discuss how the various media texts are effective in communicating the issues for cats and birds.

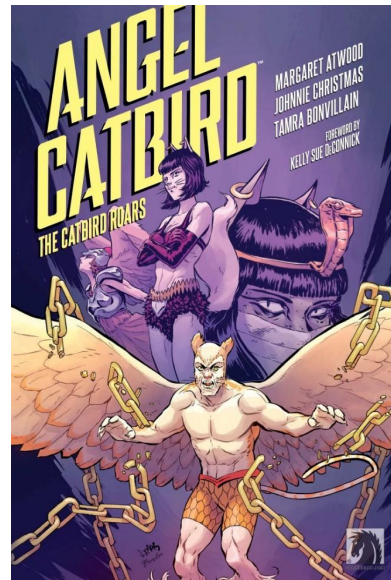
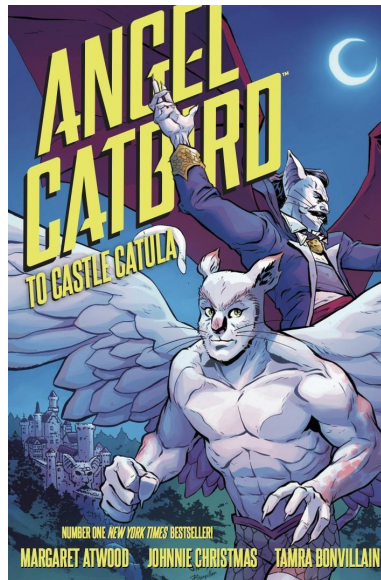
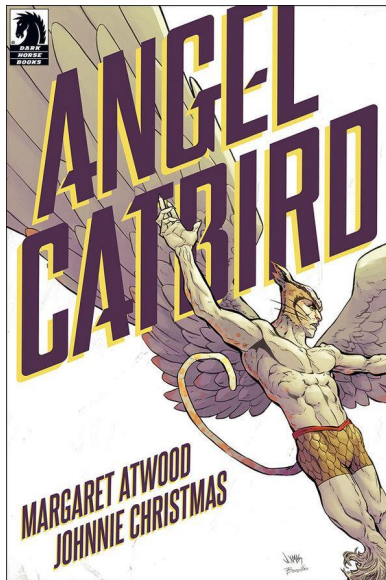


Figure 18

Media Text Evaluation

The graphic novel *Angel Catbird* is an example of how alternative media texts can be used to enhance a message. What messages is the graphic novel *Angel Catbird* trying to convey? Throughout this worksheet, think about what makes the graphic novel *Angel Catbird* an alternative media text, and how it succeeds in presenting ideas about keeping cats safe and saving bird lives.

In your opinion, how is *Angel Catbird* accomplishing its purpose?

Who is the primary audience that this graphic novel is trying to appeal to?

In your opinion, is the graphic novel *Angel Catbird* successfully appealing to its intended audience?

What other forms of media text do you think could accomplish the same purpose as *Angel Catbird*?

What would these media texts require to successfully appeal and communicate to the intended audience?

Figure 19

Media Text Creation

Now it's your turn: Plan, Create, and Evaluate!

Based on your answers from the media text evaluation, what forms of media could accomplish a similar purpose to *Angel Catbird*? Choose one type of media text to create.

What type of media text do you plan to complete? Why is this choice appropriate?

What is the purpose of this media text, and how does it relate to keeping cats safe and saving birds lives?

What is the main message of your media text?

Who is the primary audience you are trying to appeal to with your specific media text?

Creative Media Text Evaluation				
Media Text Type/Name:				
	1	2	3	4
	1	2	3	4
	1	2	3	4
	1	2	3	4
	1	2	3	4
Creative Media Text Evaluation				
Media Text Type/Name:				

	1	2	3	4
	1	2	3	4
	1	2	3	4
	1	2	3	4
	1	2	3	4

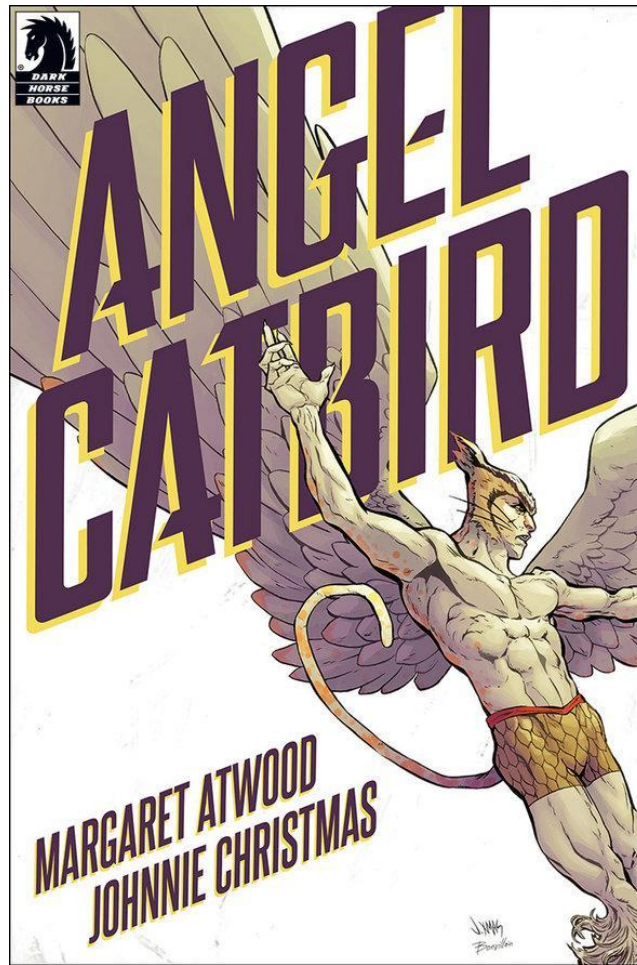
LESSON 13: ANGEL CATBIRD IN THE CLASSROOM

Summary:

Students read the graphic novel *Angel CatBird Vol. 1* to learn about the Cat and Bird issue.

Introduction:

Margaret Atwood's graphic novel *Angel CatBird* is a rousing adventure, and it also outlines tips, tricks, and facts about the issues related to cats and birds. Reading this graphic novel with your students will expose them to an entertaining story, a less-traditional literary medium, and an abundance of great information. The novel is suitable for Grades 5 and up, and a week-long reading study is included below. We've also included 'blanks' of illustrations from the graphic novel that students can colour.



Learn more: <http://catsandbirds.ca/media/angel-catbird-highlights-dangers/>
<http://catsandbirds.ca/blog/margaret-atwood-on-cats-birds/>
<http://catsandbirds.ca/blog/angel-catbird-volume-2/>
<http://catsandbirds.ca/blog/the-catbird-roars/>

Reading the graphic novel with your students

For study of and reflection on this graphic novel, we split up the book into 5 sections so students can focus on a portion of the book every day for a week. We encourage you to incorporate our activities for your grade group along with this reading study as the concepts explored in the book will overlap with the ideas taught in the lessons.

Monday: read the introduction (together or individually) and ask students to:

- Write a summary of the introduction.
- Write down one fact from the introduction.
- Draw something that represents one point in the introduction.

Tuesday: read pages 11 to 23

- Write a summary of the content.
- Write a sentence explaining how the story reinforces one of the cat facts found in “There Lies Danger” (p 17) or “Cats Aren’t So Streetwise” (p 23).
- Draw a picture that illustrates one of the cat facts.

Wednesday: read pages 23 to 43

- Write a short summary of the content.
- Write a sentence about how the story shows that Strig is concerned about both cats and birds.
- Consider the information in Cat-Bird Math I (p. 33) and Cat-Bird Math II (p 34). What does the information presented suggest about how we should deal with pet cats’ hunting differently than feral, or homeless cats’ hunting?
- Draw a picture that illustrates “Poison, Poison Everywhere!” (p 25), or “Cats Smell Well” (p 28).

Thursday: read pages 43-63

- Write a short summary of the content.
- Write a sentence based on the information in “Cats are Natural Hunters” (p 46) that explains why the responsibility for cats hunting birds belongs with cat owners, not cats themselves.
- Draw two cats, one of a wild cat (tiger, lion, puma, leopard, etc) and one of a pet cat.

Friday: read pages 63 to the end.

- Write a short summary of the content.
- Draw your favourite character.
- Consider the information in Cat-Bird Math, Part III (p. 63). Draw a very tired Momma cat with one litter of kittens.



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CATS AND BIRDS
KEEP CATS SAFE AND SAVE BIRD LIVES



Nature
CANADA
Your Voice for Nature

Status of domestic cats

Safe

Owned pet cats that are kept indoors and fully supervised or enclosed when outdoors, with all needs met by responsible owner.

Stray

Owned or semi-owned cats that roam outdoors for short to extended periods of time without human supervision; the owned ones are regularly fed, possibly by more than one household/human; the unowned ones may be lost or abandoned pets and usually have to hunt for food; stray cats are usually comfortable interacting with humans;

Feral

Un-owned cats that live outdoors full time either alone or in colonies with little human interaction; they are fearful of humans and avoid them; they are stray cats who have gotten disused to human contact, or offspring of lost or abandoned pet cats.

Other Terms

Behaviour

The actions or reactions of a person or animal in response to external or internal stimuli.

Biodiversity

The variety of organisms at all levels of classification and the variety of ecosystems within a specific geographic region and globally.

Bylaw

A law or regulation made by a local authority and which applies only in their area.

Domestic

A tame animal living within a household.

Habitat

The place where an organism lives and that provides it with the food, water, shelter, and space that it needs to survive.

Mammal

A warm-blooded, usually hairy animal that breathes air, gives birth to live offspring, and feeds milk to its young

Neuter

Lacking developed sexual organs, or having had them removed

Spay

To remove surgically the ovaries of (an animal)

Species

A group of closely related organisms that are very similar to each other and are usually capable of interbreeding and producing fertile offspring

Sustainability

A process that can be maintained without interruption, weakening, or loss of valued qualities. Sustainability ensures that a population remains within the carrying capacity of its environment.

Transition

A change from one place to another

Vulnerable

Susceptible to physical harm or damage

Source: The Ontario Curriculum grades 1-8 Science and Technology, 2007 Updated.

ADDITIONAL RESOURCES

If you are looking for more activities, interested in more information, or are curious about how you or your students can get more involved, you can find more resources below.

Below are four sections: (1) additional printed materials available for your classroom, (2) a handy fact sheet, (3) links to further information and activities and (4) websites for more information on how you can Keep Cats Safe and Save Bird Lives.

(1) Additional Printed Materials:

If you would like to receive paper copies of the brochures or bookmarks pictured below, please contact info@catsandbirds.ca. You can also download the brochures and Junior Birder Journal & Activity Book from:

<http://catsandbirds.ca/brochures-and-bookmarks>

<http://naturecanada.ca/wp-content/uploads/2014/02/Junior-Bird-Guide-2017.compressed.pdf>

WHO WE ARE

Keep Cats Safe & Save Bird Lives is a coalition of individuals and organizations concerned about the well-being of cats and birds. We believe all creatures are important, and as humans we owe both cats and birds protection. Led by Nature Canada, the oldest national nature conservation charity in the country, the coalition includes national partners Bird Studies Canada, Earth Rangers and the Canadian Federation of Humane Societies, as well as an ever-growing list of regional and local partners.

Please visit www.catsandbirds.ca to see a current list of partners.

We are grateful for financial support from:

Environment Canada
The Charter Foundation
The Fuller Foundation
The Gilling Foundation

Other ways to help our birds:

- Install & maintain bird feeders & bird baths
- Mark windows to prevent window collisions
- Drive slow to avoid collisions with wildlife
- Cultivate native plants to ensure we maintain a healthy natural habitat for our bird species

Learn how you can help protect birds in Canada:
www.naturecanada.ca/initiatives/save-bird-lives

KEEP CATS SAFE & SAVE BIRD LIVES

Please see the links below, or contact us at info@catsandbirds.ca for more information.

Resources for Cat Owners

Ensuring a Stimulating Environment
www.catsandbirds.ca/research/safe-happy-cat

Safe Outdoor Options
www.catsandbirds.ca/research/cat-enclosures-and-catio

Harness Training your Cat
www.catsandbirds.ca/research/harness-training-your-cat

Dealing with Escape Artists
www.catsandbirds.ca/research/dealing-with-escape-artists

What to Do if You Find an Injured Bird

To find a wildlife rehabilitator near you
www.ontario.ca/page/find-wildlife-rehabilitator

Other resources available at www.catsandbirds.ca

- DIY Cat Shelf
- Cat Proofing Your Garden
- Cat Spray Solutions
- Homeowner's Brochure: Window Collision Prevention

Keep Cats Safe & Save Bird Lives celebrates the contributions that cats and birds make to our lives, environment, and community.

We invite **YOU** to consider what you can do to make Canada a safer place to live for both cats and birds.

"Both cats and birds are safer when cats are protected from the risks of roaming unsupervised outdoors."
-Dr. Shane Bateman, DVM

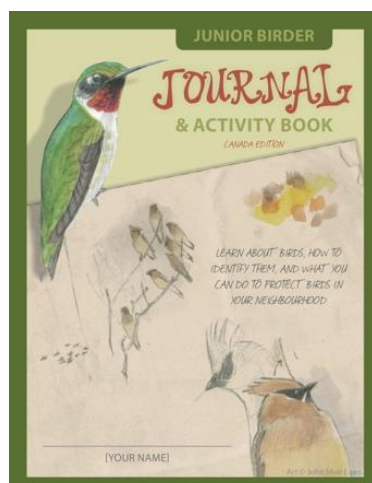
KEEP CATS SAFE & SAVE BIRD LIVES

Celebrate Bird Day!
Help welcome back the birds on International Migratory Bird Day

Unsupervised outdoor cats are vulnerable to diseases, parasites, cars and fights with wildlife, dogs and other cats. Another good reason to keep our cats from roaming is that they kill large numbers of birds. Many bird species are under enormous stress from habitat loss, among other things, and we need to do everything we can to help our struggling bird populations.

Act now to help make Canada a safer place for cats and birds at www.catsandbirds.ca

Nature Canada
The Charter Foundation
The Fuller Foundation



(2) Handy Fact Sheet

Visit <http://catsandbirds.ca/> for more info.

WHO WE ARE

Keep Cats Safe and Save Bird Lives is a coalition of individuals and organizations concerned about the well-being of cats and birds. We believe all animals are important, and as humans, we owe both cats and birds protection. Our coalition includes national partners the Canadian Federation of Humane Societies, Bird Studies Canada and Earth Rangers, as well as regional and local partners. For a full list of partners, visit <http://catsandbirds.ca/who-we-are>.

BIRD FACTS

- Bird populations are declining rapidly across the country, some species **by as much as 60-90%**. (SOURCE: [State of Canada's Birds](#), Environment Canada, 2012)
- Nationally Bird **species at risk increased from 47 to 86** between 2001 and 2014 (SOURCE: [State of Canada's Birds](#), Environment Canada, 2012)
- Environment Canada estimates that, above and beyond the impact of habitat loss and climate change, [between 130 and 433 million birds die each year in Canada to humans & their decisions](#). Although the numbers are not well understood, approximately 75% of that total is estimated to be due to outdoor pet and feral cats. (SOURCE: **A Synthesis of Human-related Avian Mortality in Canada**, by Anna M. Calvert, Christine A. Bishop, Richard D. Elliot, Elizabeth A. Krebs, Tyler M. Kydd, Craig S. Machtans and Gregory J. Robertson, Avian Ecology)
- More than **450 species of birds** can be found in Canada
- Some of the birds in Canada that are considered vulnerable to cats include common species such as Cardinals and Goldfinches, and some are designated as species at risk, including: Bank Swallow, Wood Thrush, Barn Swallow, Eastern Meadowlark, Bobolink & Chimney Swift
- Birds provide vital [ecological services](#), including seed dispersal, insect control and soil regeneration.
- Birds vulnerable to cats include songbirds, ground-nesting birds, and birds who forage for food on the ground.

CAT FACTS

From [Cats in Canada 2017: A Report on the Cat Overpopulation Crisis](#), Canadian Federation of Humane Societies:

- 72% of Canadian cat owners keep their cats from roaming unsupervised. That's +13% over the figure from [our own research in January 2016](#) and indicates that more than 1.1 million additional cats are safe from outdoor dangers.
- There are about 9.3 million pet cats in Canada and roughly 2.6 million of those are routinely exposed to outdoor dangers by their owners.
- Nationally, cats are twice as likely to end up in shelters as dogs, despite the populations being of similar size.
- 68% of stray dogs in shelters are reclaimed by owners, but only 10% of cats are.
- In 2016, there were more than 261,000 cats in shelters that did not find new homes.
- The Canadian Federation of Humane Societies recommends cat owners keep their pets from roaming unsupervised.
- Cat owners (46%) are far less likely than dog owners (77%) to have taken their pet to the veterinarian within the last 12 months. (SOURCE: Canada's Pet Wellness Report, Canadian Veterinary Medical Association, 2011)

- [The University of Georgia 'Kittycam' Study](#) results: pet cats bring home an average of only 23% of their prey; 85% of cats exhibited at least one risk behavior (e.g. crossing the road); and 7% of cats were getting food from a second home!

RISKS TO OUTDOOR CATS:

DISEASES:

- FeLV: Outdoor cats are 1.4 more likely to contract potentially-fatal Feline Leukemia (FeLV). (SOURCE: "Seroprevalence of feline leukemia virus and feline immunodeficiency virus infection among cats in Canada" by [Susan Little](#), [William Sears](#), [Jessica Lachtara](#), and [Dorothee Bienzle](#))
- FIV: Outdoor cats are 3.4 more likely to contract Feline Immunodeficiency Virus (FIV) than indoor cats. (SOURCE: "Seroprevalence of feline leukemia virus and feline immunodeficiency virus infection among cats in Canada" by [Susan Little](#), [William Sears](#), [Jessica Lachtara](#), and [Dorothee Bienzle](#))
- Other diseases to which outdoor cats are more vulnerable include Rabies and Feline Distemper, both of which can be fatal, and both of which are preventable with vaccinations.

CARS

- Cars are a leading cause of sudden death in cats, particularly young cats. One study showed that 51% of sudden deaths among cats that had access to the outdoor were due to road traffic accidents. (SOURCE: Olsen, Tammy and Andrew Allen. 2001. [Causes of sudden and unexpected death in cats: a 10-year retrospective study](#). *Canadian Veterinary Journal* 42: 61-62.)

PARASITES

- Fleas, ticks and worms are rarely fatal, but they can cause immeasurable misery for both the animal and the owner.

FIGHTS

- Cats are territorial, and outdoor cats will defend their turf from other cats. There is also a risk of fights with dogs and wildlife such as coyotes and raccoons. Cats are prey for, as well as predators of, wildlife.

POISONING

- Many common garden plants – lilies, tulips, chrysanthemums, to name only a few – are toxic to cats. Insecticides and anti-freeze are also extremely poisonous for cats, as are some human foods and medicines, such as chocolate, coffee and aspirin.

GETTING LOST

- Only 10% of stray cats in shelters are reclaimed by their owners. (SOURCE: Canadian Federation of Humane Societies, "Cats in Canada 2017". , https://www.cfhs.ca/animal_shelter_statistics_report)

(3) Links to additional information, activities and educational programs:

Join the movement to Keep Cats Safe & Save Bird Lives

<http://catsandbirds.ca/join-the-movement>

Find an organization near you to get involved with:

<http://catsandbirds.ca/who-we-are-2/>

Answer the call to volunteer with Nature Canada:

<http://catsandbirds.ca/wp-content/uploads/sites/3/2016/05/Volunteer-Call.pdf>

For more bird educational programs / to engage your students in learning more about birds:

<http://birdscanada.org/education/school/index.jsp>

For information on humane educational programs / to engage your students in learning more about pets: find a Humane Society or SPCA educational program near you at

https://www.cfhs.ca/find_a_member

Make identifying birds in the school yard easy with this FREE app from Cornell Lab of Ornithology:

<https://itunes.apple.com/us/app/merlin-bird-id-by-cornell/id773457673?mt=8>

(4) Websites for more information on how you can Keep Cats Safe and Save Bird Lives:

Nature Canada's Save Bird Lives

<http://naturecanada.ca/initiatives/save-bird-lives>

Canadian Federation of Humane Societies

<http://cfhs.ca/> •

Cornell Lab of Ornithology

<http://www.birds.cornell.edu/page.aspx?pid=1609>

Bird Studies Canada

<http://bsc-eoc.org/>

Earth Rangers Canada

<https://www.earthrangers.com/birdfeeder>

FLAP Canada

<http://www.flap.org/>

