



Cats in the Community

COMMUNITY CATS AND THE ECOSYSTEM

A SCIENCE LESSON ON CATS IN THE COMMUNITY

BCSPCA

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Cats in the Community

Community Cats and the Ecosystem, is one of four BC SPCA lessons in this series *Cats in the Community*.

Community Cats and the Ecosystem is a science lesson on the food chain, invasive species and the effects on the ecosystem.

There are three other lessons;

Catistics, is a social studies lesson, where students interpret survey data and use critical thinking skills to come up with solutions to the pet overpopulation issue.

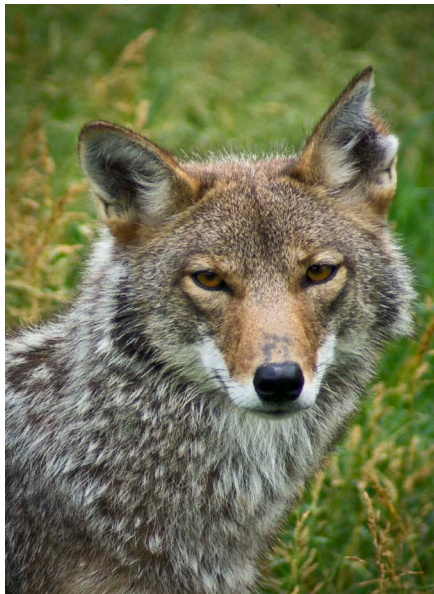
Cat Math uses multiplication, estimation and graphing skills students will calculate the numbers of cats that can be born over a two year period if they are not spayed or neutered.

Catboy: A novel study on pet overpopulation uses the novels *Catboy* and *Hunter* by Canadian author Eric Walters, students will make connections to real situations in their community and think critically about ideas and information to deepen and transform their understanding about community cats.

All of the lessons are interactive and thought provoking, challenging students to come up with solutions to the community cat overpopulation problem.



Science: Community Cats and the Ecosystem



Cats are not an indigenous species to North America. As strictly domestic indoor pets they would not affect the ecosystem, but cats who are allowed to roam freely outdoors, as well as abandoned or stray cats and their kittens, who are not socialized and must fend for themselves, all affect the ecosystem. One unsprayed abandoned or stray cat who has a litter of kittens who never have contact with humans and then go on to have kittens of their own is where feral cats originate.

See the BC SPCA's position statement on cat welfare on pages 9 and 10..

Introduction:

Outdoor cats have an effect on the food chain, bird and rodent populations, the community and the ecosystem.

Assessing the impact of outdoor cats on other organisms and the environment will help students come up with solutions to sustaining a healthy local ecosystem.

Subject/Grade: Science/Grade 3

Learning Outcomes:

From this lesson students will be able to:

- Observe how animal populations are affected by predatory cats.
- Predict how food chains are affected by outdoor cats
- Collect data on numbers of animals killed for food by cats in relation to number of cats in a community.
- Make a simple bar graph to compare number of cats and number of prey caught.
- Identify implications of outdoor cats on the environment.

Materials:

- food cards (baby birds, mouse, rat and birds)
- trash cards (candy wrapper, coffee cup, banana peel, balloon)
- coyote cards (optional)
- discussion questions
- video (humanesociety.org/issues/feral_cats)

Procedure:

1. Introduce the lesson by using asking discussion questions 1-3 from page 4 and defining the terms. On the board, write questions 5 and 7 along with the students' answers to these. You will come back to these after the activity.
2. Make nine copies of the cards on page 4 or 6 and one copy of the coyote cards on page 6 or 8. Cut them along the dashed lines. (cards should be copied either on a light setting or heavier paper so that the images can not be detected from the back side of the paper)
3. Arrange the students into a large circle and spread the pictures face down in the middle.
4. Choose two students to be feral cats, one to be a coyote and one to be a hawk or an owl.
5. Have each of the students take turns choosing a card from the pile. Once a student who is a cat has two

food cards, choose two more students to become cats (these students represent kittens who would be born and survive as outdoor cats). Once a student who is a coyote or bird has six food cards, choose one student to become one of those animals as well. This is to demonstrate that cats reproduce at a much higher rate than coyotes and birds.

6. If a student chooses four trash cards in a row, they become a deceased and don't get another turn.

7. In round three, introduce the coyote cards. If a student who is a cat turns over one of these cards they become a deceased cat. If a student who is a coyote or bird turns over a coyote card they return it to the pile of cards and lose that turn.

8. Once all or most of the food cards have been found, have the students count up their food cards. Compare the number of food cards from all of the cats to that of the coyotes and birds by creating a bar graph.

9. You can do several rounds of the game and compare the numbers.

10. Review questions 4 and 5 and see if the students can add to their original answers written on the board. Use questions 6-10 to have students think critically about the issue of feral cats and the ecosystem/food chain.

11. This 16 minute video covers many of the feral/community cat issues:

humanesociety.org/issues/feral_cats

It is produced by the Humane Society of the United States and therefore the statistics and reference to euthanasia of feral cats in shelters are different than in Canada.

See the BC SPCA's position statement on cat welfare on page 6 and 7.

Please review the video prior to showing it to your students as some sections might need some explanation for elementary-aged students.

12. A great resource for questions about feral and community cats can be found at humanesociety.org/issues/feral_cats/qa/feral_cat_FAQs.html



Discussion Questions

1. What do we mean by the term community cats?

- Community cats can be either stray or feral. A stray cat is a pet who has been lost or abandoned, is used to contact with people, and is tame enough to be adopted. A feral cat is the offspring of stray or feral cats and is not accustomed to human contact. Feral cats are usually too fearful to be handled or adopted.

2. Why do we have feral and community cats?

- The kittens of stray or feral cats will become feral, too fearful to be handled or adopted if they do not have contact with humans at an early age. Since a female cat can become pregnant as early as five months of age, the number of feral cats in a neighborhood can rapidly increase if cats aren't spayed or neutered.

3. Are cats an indigenous (a natural) species in our community?

No.

4. How does this affect the ecosystem?

- Cats kill many birds and small mammals

5. What ways do outdoor cats effect the food chain?

- Cats kill prey that is also food for other wild animals

6. How do outdoor cats affect the community?

- More kittens come into shelters/rescue organizations (young offspring of feral or community cats).
- Nuisance behaviors, such as urinating and defecating in someone's yard or garden, digging in some one's yard or garden, jumping on someone's car, and upsetting an owned cat.
- Keeps the rodent populations down.

7. How do outdoor cats affect the ecosystem?

- Some species of animals die off because of over predation by cats.
- Some species die off because there is less food for them.

8. Are cats food for other animals?

- Coyotes

9. What could be done to reduce the numbers of feral and community cats?

- Build a cat enclosure or use a leash/harness to walk owned cats so they can access the outdoors safely.
- Implement a TNR (trap, neuter, return) program for feral or unowned outdoor cats.
- Encourage and educate cat owners about keeping cats indoors, spay/neuter.
- Create and enforce municipal bylaws to not allow unneutered cats to roam freely.
- Encourage caregivers of "loosely" owned cats (may feed a cat that comes into their yard) to have that cat neutered.

10. How would the eradication of community cats affect the ecosystem?

- Cats from other colonies would move in to the area because there is a food source and less competition amongst their own cat colony.

Some of the basic issues such as cats preying on fledglings, keeping the rodent population down to a level that keeps the human population happy, taking food away from other prey species like owls and hawks, zoonotic diseases and how this effects the ecosystem are all good topics for discussion and debate that relate to the science curriculum.



balloon



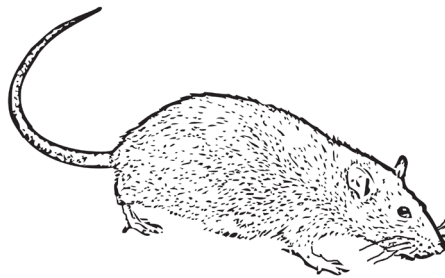
banana peel



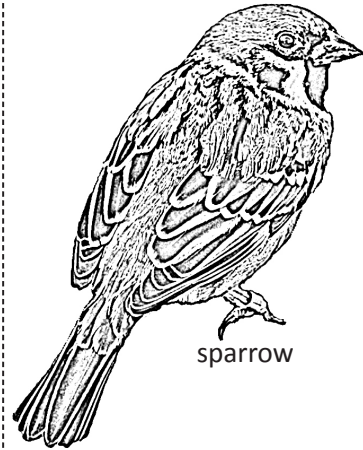
fledgling



mouse



rat



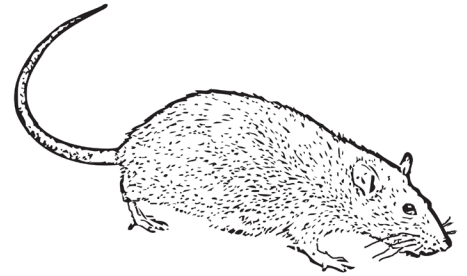
sparrow



coffee cup



mouse



rat



candy wrapper



fledgling



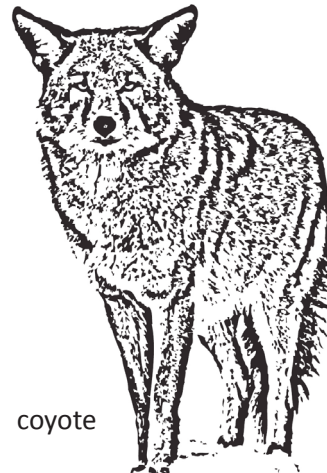
fledgling



coyote



coyote



coyote



coyote



coyote



coyote



coyote



coyote



coyote



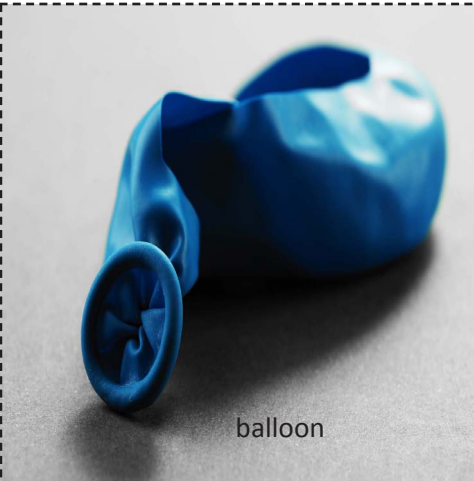
coyote



coyote



coyote



balloon



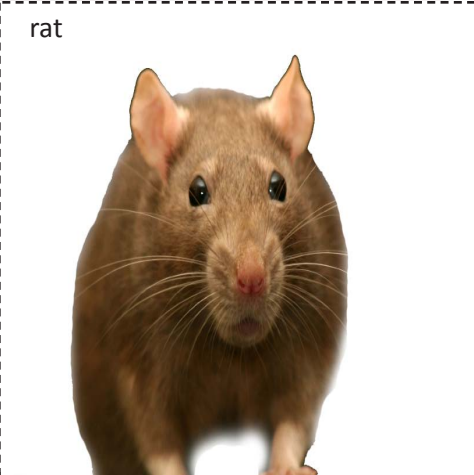
banana peel



baby birds



mouse



rat



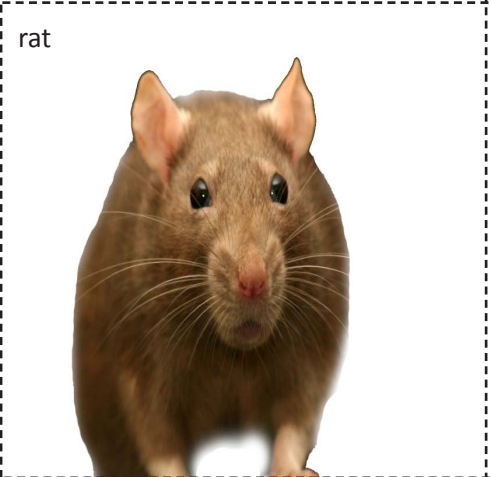
birds



coffee cup



mouse



rat



candy wrapper



baby birds



baby birds

coyote



coyote



coyote



coyote



coyote



coyote



coyote



coyote



coyote



coyote



coyote



coyote



THE BRITISH COLUMBIA SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS

POSITION STATEMENTS CAT WELFARE

WELFARE OF CATS

The BC SPCA is dedicated to promoting the health and welfare of cats, and celebrating the close bond and mutual relationship between people and their companion cats. Through education and advocacy the BC SPCA works to raise the profile and intrinsic worth of cats to encourage society to take responsibility for cats in their communities.

Guardians are expected to provide their cats with a good quality of life based on the Five Freedoms. In addition, guardians are expected to contribute to the reduction of cat overpopulation through early spay/neuter, ensuring their pets are permanently identified should they become lost or stolen and preventing cats from preying on wildlife.

COMPANION CAT HOUSING

Provisions for good welfare vary from cat to cat depending on their unique personality, age and health requirements. The BC SPCA recommends housing that balances the welfare and safety needs of cats with protection of wildlife. Most cats can experience good welfare indoors with environmental and social enrichment. For cats with a strong drive for outdoor access, a secure enclosure and/or walks with a harness and leash can provide additional enrichment and protection from health and safety risks such as predation.

HOMELESS AND ABANDONED CATS

The abandonment of cats is a criminal offense under the Criminal Code of Canada and the Prevention of Cruelty to Animals (PCA) Act. The BC SPCA supports preventing abandonment through public education.

Cats left to fend for themselves suffer poor welfare and, if unneutered, contribute to pet overpopulation. When well-intentioned citizens intervene to provide some aspects of care to a homeless cat, the BC SPCA advises individuals take steps to determine ownership of the cat and return the cat to the guardian. If individuals choose to care for a truly abandoned cat they should take steps to ensure the cat receives good welfare as per the Five Freedoms.

CAT COLONIES

The BC SPCA recognizes that colonies of cats exist in many regions of B.C. Cats (particularly females) will live in groups (colonies) where resources are available and colonies may be comprised of both homeless abandoned and feral cats. The BC SPCA supports the concept of well managed colonies where the principle goal is ending homeless and feral cat populations.

Good management of a colony includes an effective trap, neuter, vaccinate, identification and release of adult ferals. Emphasis should be placed on ensuring good welfare for the adult feral cats, rehabilitating and rehoming abandoned cats, and the socialization and adoption of feral kittens. A wildlife mitigation strategy should be part of a well-managed cat colony protocol. Management of colonies should include daily monitoring and detailed record keeping.

BACKGROUND

Cats are the number one companion animal in Canada with over one quarter of all households having one or more cats. Despite this, the vast numbers of homeless, feral and unwanted cats represents one of the greatest animal welfare challenges facing communities and humane organizations.

While well intentioned, simply feeding a homeless cat population without ensuring one hundred percent spay/neuter provides the nutritional resources that result in increased reproduction and larger litters for the remaining intact animals. This subjects offspring to further suffering and continuance of the reproductive cycle.

DEFINITIONS

Homeless abandoned cat: a cat who was once in the care of guardian but is now living as an ownerless cat.

Feral cat: an ownerless cat born out of captivity, without human socialization.

Five Freedoms: A concept first developed in 1965 by The Brambell Committee, formed by the UK government to examine the conditions on commercial farms. Now internationally recognized, the Five Freedoms are considered applicable to all animals.

The BC SPCA's Five Freedoms (adapted from the original list) are:

1. Freedom from hunger and thirst;
2. Freedom from pain, injury and disease;
3. Freedom from distress;
4. Freedom from discomfort;
5. Freedom to express behaviours that promote well-being.

Approved by the Board of Directors – December 11th, 2010

