

## Objectives

The lessons in this programme meet learning objectives in social studies, language arts, and science. Among other programme goals, students will learn social studies and life science concepts, practise critical reading and comprehension strategies, and engage in role-play activities to encourage empathy for cats and dogs.
Numerous studies have found that environmental education programmes like ours improve critical thinking skills, motivate students to become more engaged, and promote academic achievement, including better performance on standardized tests.

There's also documented evidence that integrating humane education into the classroom can lead to reductions in school violence and bullying, while supporting moral development and instilling a sense of responsibility for others, both animals and people.

## Table of Contents

## Teaching Guide

1 Lesson 1: Viewing the Video
2 Lesson 2: Reading the Student Magazine
3 Lesson 3: Animal Adaptations
4 Lesson 4: Communication and Empathy
5 Lesson 5: Animal Investigator
6 Lesson 6: Too Many Feral Cats?

## Student Worksheets

1 Worksheet 1: Viewing Guide
2 Worksheet 2: Reading Guide
3 Worksheet 3: Cat Adaptations
4 Worksheet 4: Animal Investigator
5 Worksheet 5: Animal Investigator
6 News Article: City Debates Plan for Street Dogs

## Student Magazine

1 Cats, dogs and us
2 Dogs and Cats in Our Communities
3-5 The Incredible Cat
6-7 The Outstanding Dog
8 What Are You Saying?
9-13 Taking Care of Cats and Dogs
14 Glossary

## Companion Video

The educational video for this programme runs for approximately 18 minutes. Watch it online:
Youtube (http://youtu.be/BaEcK09XY2U)
Vimeo (https://vimeo.com/64918575)

## Online Library

IFAW's education library with free resources on a variety of animals and conservation themes: www.ifaw.org/ lessons.

## Animal Action Education

Each year, the International Fund for Animal Welfare (IFAW) launches a new thematic education programme focusing on animals and the environment. Free educational materials are locally adapted for free distribution in a dozen languages and dialectsincluding Braille-and more than 18 countries, reaching some $5,000,000$ young people worldwide each year. For more information about IFAW and the Animal Action Education program, visit www.ifaw.org. You can also e-mail info@ifaw.org or call 1-800-932-4329.

## How to Use This Program

Cats, Dogs, and Us aims to educate students about the characteristics of cats and dogs, the unique relationships cats and dogs have with people in communities around the world, and the important responsibility people have in caring for the needs of cats and dogs.

Lessons reinforce and extend concepts covered in the video and Student Magazine. Suggestions for adapting the lessons for younger or less able students or extending the lesson for older or more advanced students are provided. Depending on the lessons and activities you choose, you may teach one or two lessons as stand-alone activities or the program may be taught as a one- or two-week unit. Here is one possible approach to teaching the program:

1. Introduce Topic and Develop Content Knowledge Video (view it online Youtube (http://youtu.be/BaEcK09XY2U) or Vimeo (https://vimeo.com/64918575) ), Lessons 1 and 2, Worksheets 1 and 2
A. Video Viewing: View the video with a class to build background and tap into students' prior knowledge about cats and dogs. Students may use Worksheet 1 to help them focus on important information as they watch the video. Following the viewing, students may discuss their ideas in groups.
B. Read the Student Magazine: Use suggestions from Lesson 2 to prepare students to read the Student Magazine. During reading, students may also use Worksheet 2 to record information about key vocabulary, questions they have, and interesting facts.
2. Conduct Lesson Activities Teaching Guide: Lessons 3-6, Worksheets 3-5, and News Article
Use the lessons to support and expand on concepts discussed in the Student Magazine. Lesson 3 focuses on the scientific concept of adaptation and on how cats have adapted to their environments over time. Lesson 4 presents activities that support the topics of dog and cat communication and develop empathy towards cats and dogs. Lesson 5 guides students to categorize the needs of dogs, cats, and people, and provides an activity for observing a dog and looking for signs of neglect. Lesson 6 provides a news article and an opportunity for students to debate a city's plans for dealing with their population of roaming dogs.

## 3. Extend Learning and Take Action Teaching Guide: Lessons; Take Action Flyer

Use appropriate extension activities within the lessons as homework or extra projects to reinforce learning.
Suggestions for responsible individual and group action on cat and dog issues can be found in the supplemental Take Action flyer. Bring parents on board for the Stand Up for Cats and Dogs Pledge.
4. Tell Us What You Think Send us your feedback so we can continue to improve and enhance our program and resources: www.ifaw.org/teacher-feedback

## Ground Rules Activity

Prior to discussions that may involve strong views or feelings, many teachers and students like to develop ground rules within their classrooms to promote positive listening, respect, and sensitivity to different points of view.
Ask the class to pair up and answer the following question: "How do people behave toward me that makes me feel confident and comfortable to talk with them about things that really matter to me?"
Ask the pairs to move into groups of six and share their ideas. Have them make a list of the behaviors that all six can understand and agree with. These may include:

## 1. They listen to me.

2. They don't laugh.
3. They don't shout what I say to other people.

Gather the whole class and ask each group to report their list-one behavior at a time.
Check for understanding and agreement with the whole class. Only write down those behaviors that everybody accepts and understands.
Steer the group toward identifying clearly observable behaviors rather than broad concepts. Display the list as a means to encourage individuals to take responsibility for their actions within the group.


Overview Students will gain background information to prepare them for reading the Student Magazine Cats, Dogs, and Us. Students will appreciate the complexity of viewpoints about cats and dogs and recognize variations in how cats and dogs live with people across cultures and throughout history.
Learning Outcomes Students will: Follow rules for collegial discussions;
Demonstrate understanding of multiple perspectives; Analyze connections between cats and dogs and humans; Identify physical traits of cats and dogs; Recognize the consequences of the absence of cats and dogs to communities and society.

## Warm-up: What's Your View?

This activity will help students understand that people have different perspectives on the relationship between people and cats and dogs.

1. As this activity may evoke strong feelings, review the Ground Rules Activity on the first page before beginning.
2. Hang up one of the following signs in each corner of the classroom: Strongly Agree; Agree; Strongly Disagree; Disagree.
3. Read the first Viewpoint Statement below. Ask students to move to the corner of the room marked with the sign that best represents their response to the statement.
4. Ask students to discuss their response with the other students in their corner. Explain that students may change their minds and move to a different corner based on their discussions.
5. Record the number of students in each corner. Continue with the next Viewpoint Statement.
6. After students have responded to each Viewpoint Statement, bring the group together and ask them what they have learned from each other. What surprised them?

## Viewpoint Statements

- Dogs and cats help people and communities.
- Dogs and cats don't always need people to take care of them.
- A dog that bites could be scared.
- Dogs should never be allowed to roam free.


## Before/During Viewing the Video

1. Tell students they are going to watch a video about dogs and cats and their relationship with humans. Give each student a copy of Worksheet 1 . Explain that the worksheet will help them focus on important information in the video.

## Adapting the Activity

(for younger/less-able students)

- Display the chart from Worksheet $\mathbf{1}$ and complete it as a whole group during a second viewing of the video. Stop at key places in the video to discuss the guiding questions. Record any questions students have.

2. Read through the guiding questions with students and allow them to predict what they think the answers are. Tell students to keep the questions in mind as they watch the video and to write any questions they have on the second part of the worksheet.
3. Show the video. Stop it at any point if you want to highlight information or get students' responses.

## After Viewing the Video

1. Discuss the guiding questions. If there is disagreement about the responses, replay sections of the video and have students check their answers.
2. Ask students to share questions they wrote while watching the video. Discuss the questions with the group and remind students to look for answers as they read the Student Magazine (Lesson 2).
3. Review the Viewpoint Statements from the warm-up activity. Count up the number of students that now agree or disagree with each statement and record the results. Discuss with students whether their responses have changed and why.
4. Invite students to create an advertisement for the video. Encourage students to determine what topic they think is most important or interesting and to feature it in the advertisement. (They may review the guiding questions to help them.) Tell students to make their ads inviting by including elements such as graphics, a movie rating, and quotes from "reviewers" or the stars of the show-dogs and cats.

## Extending the Activity

(for older/more advanced students)

- Encourage small groups of students to research a question that they have after viewing the video. Students may look for information in a library or online. Ask the groups to share their findings with the class.
- Have students view the video again after reading the Student Magazine. Encourage students to compare how the information is presented in each medium. Do a Think-Pair-Share activity in which students discuss how the elements in the video, such as music, visuals, and interviews, affected their understanding or emotions.


## Lesson 2:

Overview Students will understand the special relationship people have with cats and dogs, develop vocabulary associated with cats and dogs, and engage in the reading skill of asking and answering questions while citing evidence from the text.

Learning Outcomes Students will: Define essential vocabulary about dogs and cats; Ask questions, discuss, and share information about dogs and cats; Describe connections between cats and dogs and humans.

## Before/During Reading

1. Ask students to preview Cats, Dogs, and Us, looking at headings, photographs, and captions. Ask partners to discuss the following questions. Then discuss them with the whole group.

- What does the word domestication mean to you? How is this word related to cats and dogs?
- What do you think the words roaming, owned, community, and feral mean when we talk about cats and dogs?
- What responsibilities do you think people have towards cats and dogs?

2. Read aloud each glossary word and its definition. Ask students to decide which words they think they know well and which words require more clarification.
3. Give students Worksheet $\mathbf{2}$ and have them record the words they would like to learn more about. Point out that students can look for the glossary words in bold type as they read. Tell students they should also record any other words they encounter in their reading that they would like to discuss with the group.
4. Tell students to use the sections "Questions from My Reading" and "Interesting Facts" to record their questions and comments as they read. Ask students to read the text.

Reading the Text: Some students may not be able to read the text without support. You can read the text aloud with them as they echo read. Or you could have students read the text with a partner. You may also want to divide the reading of the Student Magazine over two days.

## Adapting the Activity

(for younger/less able students)

- Have students compare and contrast domestic animals and wild animals. How are they alike? How are they different? How are their needs met? Have each student write the name of an animal on a note card and draw a picture of it. With students, sort the cards into groups: domestic or wild. (Note that domestic animals may sometimes become feral.) Have students explain their reasoning.


## After Reading

Discuss the text with students. You may want to divide them into small groups to ensure participation of readers who need more support.

1. Ask students to share questions they had while reading and discuss these as a group. Encourage students to look for places in the text that provide information about the questions. Keep a list of questions that may require students to do further research to find the answers.
2. Discuss vocabulary words that students have written on their worksheet. Ask students to find the words in the text, read aloud the sentences in which the words are found, and then discuss the meanings.
3. Discuss the text section by section, having students decide on the most important points of each section. Have students reread the text to look for answers to the questions below. Encourage them to refer to the text to support their ideas. Record their responses on a chart.

- (p. 1) Why are cats and dogs called domesticated animals? What does this mean for people? What does it mean for the animals?
- (p. 2) What are the different ways dogs and cats live in communities? Why do you think it is important to understand the different ways they live?
- (pp. 3-5) What are the most important points about cats?
- (pp. 6-7) What are the most important points about dogs?
- (p. 8) What can you learn about dogs from this page? Why is it important?
- (pp. 9-13) What are the most important points in each section?


## Extending the Activity

(for older/more advanced students)

- Have students compare and contrast people's relationship to cats and dogs with our relationship to other animals, both domestic and wild.
- Invite students to research cats and/or dogs in a country or region of the world. Encourage students to find out about the history of cats and/or dogs in the area, how they are viewed in the culture, and how they live with people. Have students create a poster to show their findings.

Overview Students will understand the science concept of how animals have adapted to their environment over time. Students will predict how traits could evolve further to adapt to a particular environment.

Learning Outcomes Students will: Define and identify animal adaptations; Identify physical traits of cats; Describe adaptive functions served by physical traits of cats; Build curiosity about cats.

## Introduce Adaptations

1. Review page 3 of the Student Magazine with students. Introduce the term adaptation. Explain to students that an adaptation is a physical or behavioral characteristic that helps an animal survive in its particular environment. Animals have different adaptations that help them move, get food or water, stay warm or cool, care for their young, or stay safe from predators in the environment in which they live. For example, a tiger's striped fur is an adaptation that provides camouflage. The stripes allow the tiger to blend in with tall grass and sneak up on prey.
2. Invite students to do a Think-Pair-Share activity in which they think of an animal and one of its adaptations. Students talk about their ideas with a partner and then share them with the whole group. Chart students' responses.

## Discuss How Animals Become Adapted

1. Tell students that animals become adapted to their environment over hundreds and thousands of generations. Explain that domestic cats are descended from wild cats that survived by hunting. Imagine that many thousands of years ago, some cats had pads on their paws that allowed them to walk quietly and other cats did not. Which group of cats would be better hunters? Discuss with students that the cats with quiet paws are more likely to catch their food
and survive, while the other cats would more likely starve. If the survivors have offspring, are their offspring more likely or less likely to have quiet paws (and therefore be better hunters) like their parents?
2. Guide students to understand that after many generations, most of the cats' paws will have the physical traits that make them good hunters (soft, silent paw pads). Explain that the cats have adapted to their particular environment.

NOTE: Students may have the misconception that the cats developed quieter paws during their lifetime and that they transmitted this "acquired" trait to their offspring. However, animals cannot transmit an acquired physical trait. Instead, a trait is selected over many generations because cats with this trait will more likely survive and reproduce.

## Analyze Physical Adaptations of Cats

1. Have students complete Worksheet 3. Tell the students to list some physical traits of cats and write how those traits help a cat survive. Then, have students think about their own environment and how each trait could evolve further to better adapt to their environment. Tell students there are no right or wrong answers for this question. The goal is to have students expand their thinking beyond the text.
2. Conclude with a reminder that even though domestic cats have adaptations that make them good hunters, they are no longer wild animals, and they need people to provide for their needs.

## Adapting the Activity

(for younger/less-able students)
Role-Play: Demonstrate the process of adaptation by asking students to role-play a mouse being stalked by two groups of cats, one with quiet paws and the other with noisy paws. Have the "mouse" cover his or her eyes. Tell the mouse to say "freeze" when he or she hears a cat. Have a "cat" with noisy paws approach the "mouse." After the "mouse" hears that "cat" and says "freeze," the "cat" stops moving. Repeat with a "cat" with quiet paws. Compare how close the two "cats" got to the "mouse," and then continue with other pairs. Discuss which group of cats would be more likely to eat, survive, and reproduce: the cats with the quiet paws or the ones with noisy paws?

## Extending the Activity (for older/more advanced students)

Natural Selection: Have students build a "tree" showing several generations of cats and the effects of natural selection over time. Create about 15 green cards to represent cats with silent paws, 2 red cards for cats with noisy paws, and about 7 yellow cards for cats with paws that are in between. Make a horizontal line with 2 cards of each color. Assume that the cats with noisy paws (red cards) are not very successful at hunting, starve, and have no offspring. The others get all the preys, and have one, two, or three kittens. Lay out cards representing the new generation consisting of only green and yellow cards. Assume that, at the next generation, the green cards get all the prey and have kittens, while the yellow cards have no offspring. In two generations, the silent paws have prevailed. Explain to students that, in the real world, the categories are not as clear-cut, and that natural selection occurs over hundreds and thousands of generations.

Overview Students will analyze how dogs and cats communicate. Students will develop the social skill of empathy by learning how to identify nonverbal cues of dogs and cats and how to appreciate the animals' perspective. Students will engage in critical discussion, role-play, and observation activities.
Lesson Outcomes Students will: Identify behaviors of dogs and cats; Identify misinformation about cats; Analyze the impact of respectful behavior toward dogs and cats; Indicate awareness of, and identify with, the "feelings" of cats and dogs; Be willing to consider the natural behaviours and needs of cats and dogs.

## Warm-up: Guess What I'm Saying!

1. Play a nonverbal game of "telephone." Think of a message that a dog or cat might want to send, such as "I'm hot and I want to find some shade." Communicate the message to a student, using only gestures.
2. Have students pass the message along to each other, using only gestures. Continue until the message reaches the last student. Ask the last student to say aloud what he or she thinks the message is.
3. Discuss how it felt to communicate nonverbally. Ask students: How do you think dogs and cats feel when they are trying to communicate with us and we don't understand? Explain to your students that when they understand and experience the feelings of others they are empathizing.

## Understanding Dogs

1. Have students turn to page 8 of the Student Magazine. Discuss the body language in each illustration. What might each body part be saying? Which body parts might go together?
2. Have pairs of students look at the dog photographs. Do you recognize any of the same body language from the llustrations? Do the combinations of body parts in each picture clearly signal

## Adapting the Activity

(for younger/less-able students)

- To demonstrate how body language can convey feelings, ask students to show all the different ways they can walk-fast, with a spring in their step, dragging their feet, sauntering, and so on. Then ask individual students to show a "happy" walk, an "angry" walk, a "fearful" walk, and so on. You may also have the whole group guess what emotion the walker is demonstrating.
- Invite students to role-play scenarios in which one student plays a dog and the other plays the dog's caretaker. For example, during a walk, a dog is tired and wants to lie down. The owner wants to keep walking. After each role-play have students in the audience suggest words to describe how the dog was feeling. As appropriate, discuss the dog's body language and how the caretaker responded.
what the dog is saying? Why? Is it possible to have mixed signals (for example, where the tail seems to be saying something very different from the ears?) Discuss as a whole group.

3. Discuss why it's important for people to understand what a dog is saying through body language. If you saw a dog that looked like [identify photo] what would you do? Why? Why is it important to consider the situation the dog is in when determining what the dog is trying to communicate?

## Understanding Cats

1. Review the last paragraphs on pages 4 and 5 in the Student Magazine. Guide students to identify what purring communicates and how cats show affection.
2. Read the cat myths/reality sidebar on page 5 with students. Discuss the myths with students:

- How do the myths affect how people treat cats?
- What can we do to help people learn that the myths are not true?

3. Ask students if they know other myths about cats. Guide students to find out more information about the myths, how they came to be, and what the reality is. To extend the activity, have small groups of students create posters dispelling one or more myths about cats.

- Invite students to draw a picture of a dog using its body language to signal how it is feeling. Have students refer to the illustrations in "What Are You Saying?" on page 8.


## Extending the Activity

(for older/more advanced students)

- Have students observe an animal at home or, with their parent's or guardian's permission, in their community. Tell students to note the situation the animal is in, how the animal is behaving, and what they think the animal is feeling. Have students report on their observations to the whole group.
- Invite students to write a diary entry or "online" posting from a dog's or cat's point of view, telling about the dog's or cat's feelings throughout a day. Some scenarios students may write about include: a dog was left tied up all day while its owner was away; a roaming dog is looking for something to eat; a cat feels lonely because people believe it is unlucky.

Overview Students will understand the social studies concept of needs and that people must provide for the needs of dogs (and cats). Students will observe a dog's living situation and learn how to recognize signs of neglect.
Learning Outcomes Students will: Define need, and identify the physical, social, and behavioral needs that must be met for dogs and cats to thrive; Analyze human behavior that helps or harms dogs and cats; Identify how to take responsibility for the welfare of dogs; Evaluate evidence of neglect based on the needs of dogs.

## Discussing Physical and Behavioral Needs

 (all ages/abilities)1. Explain that a need is something a living being must have to survive. Tell students that even though dogs and cats look different from us, we need many of the same things.
2. Create a two-column chart. Label the columns We Need and Dogs/Cats Need. Lead a discussion about what students need to lead a healthy, happy life (food, water, exercise, friends, and medical care). Then guide students to compare their needs with the needs of dogs and cats. Record the students' ideas on the chart. Option: Use props, such as a water bottle, toys, photos of friends playing (both dogs and people), and so on.
3. Ask students who provides for dogs' and cats' needs. Why can't dogs and cats just provide for themselves?

## Animall Investigation (all ages/abilities)

1. Explain to students that if a dog or cat is not being taken care of, a local Animal Investigator may step in to help. Read the scenario below. Tell students they will be Animal Investigators and will look for evidence to support what the owner says or what the caller says. Students may work as a whole group or in small groups.

> A woman has called authorities to report that a dog living in her neighborhood is not being taken care of. The dog, named Bud, lives in a backyard next door to the caller. Bud's owner says that she looks after Bud properly. She says he always has water and that she feeds him twice a day. Bud is not allowed inside of her house, but he has his own doghouse. An Animal Investigator will come to see Bud and assess the situation.
2. Show students Drawing 1 (the environment and dog) from Worksheets 4-5. Explain that when they first arrive at Bud's backyard, they should look at the whole situation and describe all the details about the dog and the environment he lives in. Prompt students with questions such as:

- What does Bud look like? What is he doing?
- What is his living situation like? Is he tied? Is he tangled up?
- What does the area around Bud look like?
- Why do you think the neighbor reported Bud's situation?

3. Show students Drawing 2 (body condition). Ask students to look at Bud and assess his condition overall.

- What is Bud's body language communicating?
- Does he look well fed? How can you tell?
- Does his collar fit properly? (Students may conclude that a loose collar once fit, but the dog has lost weight.)

4. Show students Drawing 3 (food). Ask students to look for any signs that Bud is being fed twice a day, as the owner has said.

- What do you notice about the bowl?
- Can Bud reach his bowl?
- Has there been food in the bowl recently?

5. Show students Drawing 4 (water). Ask students to look for evidence regarding whether Bud always has water.

- Can Bud reach the water bucket? Is it right side up?
- Does it look like it has held water recently?

6. Show students Drawing 5 (shelter). Explain that shelter can be different things, but it needs to protect the animal from rain, snow, wind, the hot sun, and so on. Ask students to assess whether Bud has adequate shelter.

- Can Bud reach his shelter?
- Does it protect him from the weather? Explain.
- Does it have bedding inside such as straw or dry blankets?

7. Show students Drawing 2 again (health/veterinary). Tell students to look for signs of sickness or discomfort.

- Do you notice any signs that Bud is sick or hurt?
- Are his eyes weeping or crusty?
- Do you notice any new wounds? Do you see scabs?

8. Show students Drawings 1 and 2 again (friends/exercise).

- What can you tell by looking at the rope?
- Do you see evidence that Bud gets to spend time with/be near other people or run and play with other dogs? Explain.

9. Have students determine whether all the evidence supports the owner's claim that Bud is being cared for or the caller's claim that he is not. You may choose to have students write up their findings in a report, either as a whole group, in pairs, or individually. Remind students to list reasons and evidence to support their arguments.

- If Bud is not being cared for, what can be done to help him?

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Overview Through critical reading and discussion, students will examine different perspectives regarding a city's response to its population of feral cats. Students will develop speaking and listening skills through engaging in a debate.
Learning Outcomes Students will: Define essential vocabulary related to community issues with feral cats; Compare and contrast multiple points of view on the same topic; Cite evidence in the text to support analysis; Examine the consequences of the absence of feral cats to the community; Express empathy and compassion for cats.

## Key Vocabulary:

cat overpopulation community caretakers
nuisance municipal ordinances

1. Introduce the fictional news article "New Jersey towns work to get feral cats under control." Point out that the first paragraph of a news article usually gives the most important information. It often answers the questions: who, what, when, where, why, and how. Read aloud the first paragraph with students.
2. Ask students to recall what categories of cats might be included in the group "feral cats." Have them refer to page 2 and 3 of the Student Magazine if needed.
3. Draw a vertical line on the board. At the top of the line, write "Feral cats are a serious problem and should be removed." At the bottom of the line, write "Feral cats are not a problem and should be left alone." Point out that the line represents two extremes about what to do about feral cats. Ask students to mark on the line where they fall in their thinking about the feral cats. Invite several students to explain why they placed their marks where they did.
4. Have students read the full news article. After reading, review any difficult terms and discuss the major points with students using the key vocabulary. Prompt students with the following questions, and have them point to evidence in the article to support their answers:

## Adapting the Activity

(for younger/less-able students)
Instead of engaging in a debate, ask students to respond to this statement before and after reading and discussing the news article: Thousands of feral cats are too many for one town.
Have pairs create a word map for one of the key vocabulary words. The word map would include the definition, any synonyms or antonyms, a drawing, and a sentence using the word. Pairs can present their word maps to the whole group.

- How has the city dealt with the perceived problem of too many feral cats?
- What different points of view are represented in the article?

5. Have students participate in a debate about the town's response to the feral cats. Have students with similar points of view work together. Or assign students roles, for example: citizens who feel the feral cats are a problem and should be removed; citizens who feel that caretakers, adoption, and neutering will address the issues; citizens who welcome and care for the feral cats. Some students can argue from the cats' points of view, for example: a cat in a home, a cat in a colongy, a feral cat that receives care and a feral cat that does not.
6. Ask groups to consider the following questions:

- Is the problem really "too many" cats? Why or why not?
- Do you consider the issue a cat problem or a people problem? Why?
- Would the city be better off without the feral cats? Why or why not?
- What plan would you support? Why?

7. Tell the groups to list reasons and evidence to support their arguments. Emphasize that good debaters find the main arguments for the other side as well as for their own. Students can refer to the news article, pages 12-13 of the Student Magazine, and their own experiences as they prepare.
8. Invite the groups to debate the questions. If time allows, have students swap roles so that they can experience debating from another point of view. This will help them appreciate the complexity of the issues.

Invite students to role-play a conversation between a feral cat and a domestic cat about their lives and what they would like the city to do.

## Extending the Activity

(for older/more advanced students)
Have students write their reaction to the news article. Students may "post" their comments on the board. Ask students to read the comments and respond to each one with a "like" or a "thumbs down."

## Worksheet 1: Viewing Guide

Name: $\qquad$ Date: $\qquad$
Directions: As you view the video, listen for information that helps answer the guiding questions. Write any other questions you have.

## Think about these guiding questions.

- How do dogs and cats help people?
- What are some different ways cats and dogs live with people?
- What special physical traits do cats and dogs have?
- What responsibilities do people have toward dogs and cats? Why?
- How do cats and dogs communicate?
- How would the lives of people be different without cats and dogs?


## Write questions that you have while viewing.

## Worksheet 2: Reading Guide

Name: $\qquad$ Date: $\qquad$
Directions: As you read the Student Magazine, jot down words that you would like to know more about. Write questions that you have about cats and dogs, and then write facts that you would like to remember.

## Difficult/Interesting Words

## Questions from My Reading

## Worksheet 3: Cat Adaptations

Name: $\qquad$ Date: $\qquad$
Directions: List some physical traits that cats have. Then write how the trait helped them survive in their environment. Use the information on page 3 of the Student Magazine to help you.

Next, think about the environment where you live. Is it hot or cold? Is is rainy or dry? Does it have lots of trees? Imagine how each trait could evolve further to better adapt to your environment.
Record your ideas in the last column.

| Physical trait | Why was this trait <br> selected over time? How <br> did it help cats survive? | How could this trait <br> evolve to better adapt to <br> your environment? |
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Worksheet 4: Animal Investigator

Drawing 1

## Worksheet 5: Animal Investigator

Teacher Note: Be sure that students view the drawings one at a time as described in Lesson 5. This allows students to first assess the whole situation, and then look closely at details.


## The <br> <br> New Jersey Journal

 <br> <br> New Jersey Journal}

Feral cats like these can be found in every town in New Jersey.

## New Jersey towns work to get feral cats under control

Many New Jersey residents are asking their local government to tackle the problem posed by growing populations of feral cats living in dozens of colonies throughout the state.
Unlike strays that have been lost or abandoned by their owners, feral cats have never been domesticated. This means that they have never lived in people's homes.

Feral cats live outdoors, usually together in colonies, and are attracted to areas where they can find dumpsters, garbage cans and other sources of food, including occasional handouts from people.
There are an estimated 50 million feral cats in America, with hundreds
of thousands living in New Jersey. Many are the offspring of cats that have been abandoned in parks or open spaces by their one time owners.
One cat can have many litters of kittens greatly increasing the size of the colony. Because feral cats are born and raised with little human contact, they are usually fearful of people and are not suitable for adoption.

Large numbers of feral cats suffer due to hunger, injuries and disease, which can be spread to other animals in the community.
Some people worry about the health and plight of feral cats and their impact on wildlife. Others
consider feral cats a nuisance or health threat and simply want them removed.
In New Jersey, 58 towns have laws against killing feral cats and more than 150 towns support some type of "Trap-NeuterRelease" (TNR) program where feral cats are captured, spayed/ neutered so that they won't have any more kittens, vaccinated, and then released back to the area from which they were captured.
"TNR helps eliminate many townships' concerns because the result is less cat noise, fighting, injuries, rabies exposure and additional feral kittens," says Robyn Smith of the New Jersey Animal Welfare Society. "Residents are happier, and cats are safer and healthier," said Smith.

Instead of usingTNR, some municipalities have outlawed feeding feral cats, arguing that the cats won't hang around if there's no food. People who put down food for stray and feral cats are advised to stop, and are fined if the feeding continues.
However, animal welfare advocates consider this inhumane and ineffective since the cats still reproduce, and more emerge to replace those that don't survive.

Other municipalities have the animals trapped and "relocated" to colonies in other towns.
The question remains: What should be done to solve the feral cat problem in New Jersey?

## Student Magazine

## Catis Dogis gndus

Cats and dogs have lived with people for thousands of years. They live with us all around the world, in all kinds of communities. Some cats and dogs live inside homes, and others live outside. Some are free to come and go, and in many communities they roam free.

Dogs and cats are both domesticated animals. They have lived with humans for so long that their bodies and behavior have changed. Domestication is a kind of deal

between animals and people. The animals help us, and we take care of them. Because they live so closely with people, dogs and cats are sometimes called companion animals.

Cats and dogs help us in many ways. Cats hunt animals that eat crops in fields and stored food in barns and in homes. Dogs do many different jobs for humans. They herd sheep and cows, guard property, pull sleds, and more.

Dogs and cats don't just do work. Some dogs and cats give people love and affection. They teach us how to care for other beings. They make our communities and cultures rich and interesting.

This is how cats and dogs hold up their end of the deal. What do humans do to hold up our end? We care for animals. We meet their physical needs, such as food and water. We allow them to express their natural behaviors.

When the deal works, everyone benefits. The deal improves the welfare of both people and animals. When cats and dogs are healthy and happy, they help people and communities be healthy and happy, too.

## Dogs and Cats in Our Communities

Around the world, dogs and cats live with people in many different ways. No matter where they live or how they live, cats and dogs depend on people to care for them in some way.

## Roaming

A free-roaming cat or dog is free to go where he wants. The animal is not on a leash or being kept behind a fence or in a house. Many roaming
 animals have owners or guardians, but some do not. A roaming dog or cat with no owner and no caregiver is often called a stray. In New Jersey, free roaming dogs are not permitted. But in other places they are.

## Owned

Sometimes, one person will say, "That's my dog." This means the dog belongs to the person in some way. Dogs and cats like this are considered owned. An owned dog or cat may live in the owner's home, or it may roam free. Sometimes, more than one person takes care of a dog or cat. Animals like this can be considered owned by the community.



## Roaming Sunshine

In Bali, a dog named Sunshine roams the beaches freely. This worried tourists who thought she was a stray. But Sunshine has a guardian, Ibu, who owns a kiosk on the beach. Although IFAW needed to help provide the dog with veterinary care, Ibu takes good care of Sunshine, and gives this free-roaming dog a lot of love.

## Feral

Some dogs and cats are born and raised on their own without spending time with people. They become wild and are called feral. Feral dogs and cats live where they can get food and shelter. That means they usually live near people. However, they are wary of people and don't want to interact with them. Feral animals can live full, healthy lives outdoors, if people look out for them by providing the food and vet care they may need.


# The Incredible Cat 

Cats are amazing animals. They have been part of our art and culture for 9,000 years. Ancient Egyptians worshipped cats. They even made them into mummies! Vikings kept cats on their ships as hunters and companions. The Islamic Prophet Muhammad loved cats. Cats are often a symbol of good luck, such as in Russia and Japan.

Domestic cats haven't changed much from their wild ancestors. They look like their feline cousins the tigers, leopards, and jaguars. Even though they look like their wild cat cousins, domestic cats rely on people to care for them.

## Spine

A cat's spine is long and flexible, perfect for leaping and pouncing. It also allows them to curl into a circle to sleep.

## Tail

A cat's tail can bend from base to tip. Cats use their tails for balance. They also use them to communicate.

## Fur

A cat's fur can be long or short, curly or sleek, and a range of colors.

## Legs

Cats can run faster than humans. They can jump high and far. They can leap six times their own body length. That's like a human jumping the length of a bus!

## Claws

Cats have hooked claws. Their claws help them hunt and climb. The claws are kept inside their paws when not in use. This keeps them sharp.

Eyes
Cats' eyes have a special layer that helps them see in low light. It also makes their eyes seem to "glow."

Whiskers
Whiskers are part of a cat's sense of touch. They help the cat feel the space around it.

## Tongue

A cat's tongue is scratchy. It is covered with tiny hooks. The hooks help a cat clean itself.


## Ears

Sensitive ears can move around to find sounds. A cat's hearing is four times as sensitive as a person's. They can hear the quietest squeaks of a mouse.

## Paws

Cats have soft, silent paw pads that help them sneak up on prey.


## Cat Behavior

A cat's behavior is like a cat's body. It comes from the cat's wild ancestors.

Cats often like to spend a lot of time resting or napping. This gave their ancestors the energy they needed for hunting. A wellfed and sheltered cat may rest up to twenty hours a day! Free-roaming cats spend less time sleeping. They spend more time looking for food, shelter, or mates.

Cats enjoy having a safe place to hide. They like being in high places where they can see, but not be seen. This is also part of the hunting lifestyle.

Cats also try to hide their smell. They groom or clean themselves by licking their fur. They almost always groom after eating. This keeps the smell of food off their bodies. Cats also make sure to bury their waste, which is another way to hide their scent.

They will naturally look for soft ground or a litter box.

Cats make many sounds. A cat meows to greet you or when she wants something. She purrs when she is relaxed, such as when a mother nurses her kittens or when a friendly person pets her. Some cats purr when they are stressed, scared, or hurt. Purring may help them heal. Cats also hiss and growl when they are angry or scared.


Cats keep a territory, or area where they roam. They mark the territory by scratching and scent marking, or spraying urine.

A cat's ancestors probably lived in the desert. You can see this in many cat traits. Cats love warm sunshine. Most cats hate getting wet. A cat's body will save water by making the cat's urine very concentrated. That makes it smell extra strong.

People often think of cats as loners. This is not always true. Some cats are very friendly, while others prefer to be left alone. Cats show affection by rubbing, head butting, purring, grooming, and playing. A friendly cat may blink slowly or close his eyes at you.


A cat gives a friendly greeting. This cat was rescued by the LuckyCats shelter in Beijing, China. Owning cats and dogs has only recently become popular in China. IFAW supports the LuckyCats shelter and is a leading organization in China in animal rescue and public education. IFAW is also asking the government to pass laws to protect animals from mistreatment and cruelty.

| A cat's mysterious nature has led to <br> some strange myths. But are they <br> true? | Cats have nine <br> lives. | Cats are tough. They can survive without food or <br> water in emergencies. They also hide when they <br> are scared. It might seem like a cat disappears <br> and then "comes back to life." But cats have <br> just one life, so take good care of them! |
| :--- | :--- | :--- |
|  | Cats always land <br> on their feet. | Cats are good jumpers with great balance. They <br> can twist in the air to land upright. This is called <br> the "righting reflex". But cats can also be hurt <br> or killed in high falls. |

## Outstanding Dog

Dogs come in all shapes and sizes, from tiny to towering. But all dogs came from one ancestor-the wolf. Scientists say that wolves and dogs are actually the same species!

How did wild wolves become friendly dogs? It was probably a two-way deal. Ancient wolves found food near human campfires. These wolves made their homes near people. Wolves and humans both hunt and live in groups. Wolves and people realized they could work as a team. Calm, friendly wolves stayed closer to humans. They passed on their friendly behavior to their pups. Over time, wolves became dogs.

## Body

Dogs have many different body types and sizes. They range from about 1 pound ( 0.5 kg ) to about 220 pounds ( 100 kg ) in weight.

## Fur

A dog's fur keeps it warm in cold areas. It protects the dog from the sun in hot areas. Dogs shed or grow fur when the seasons change.

Head
Humans have created different breeds of dogs with different shaped heads. Their heads may look so different from each other that they appear to be from completely different mammals. For example, the skull of a collie is as different from the skull of a Pekingese as a cat skull is from a walrus skull.

## Ears

Dogs have excellent hearing. They can hear higher sounds than humans can hear. Dog ears come in many shapes and sizes. Some stand up and some are folded.

Nose
Dogs are famous for their sense of smell. They can smell 10,000 times better than humans. Dogs find food, friends, and mates using their sense of smell.

## Dog Language

Dogs have different personalities. A dog's behavior depends on where he is, whom he is with, his age, his breed, and how he feels. The same dog will act differently in different situations.

Dogs "talk" through smell, sound, and body language. A dog sniffs a new person or dog when they first meet. They can tell a lot by how you smell. Dogs mark their territory with urine and feces. They stop to smell the marks of other dogs. Dogs can tell who has been there by the smell of the urine.

Some dogs guard their territory. They may bark at unfamiliar people, vehicles, or dogs.

Dogs show how they feel through body language. A confident dog will hold her head and ears high and look at you. A nervous dog may hold his head down and look away. A playful dog may bow down or jump.

Dogs read your body language and tone of voice, too. Some dogs get scared when people are nervous, loud, or moving too fast. A nervous dog may growl or even bite. Dogs usually let you know if they are upset. Their ears go back. Their hair stands on end. They may show their teeth and growl. The dog is not bad or mean. She is trying to tell you that she is frightened or defending her territory. You should leave her alone.

A man brings all his dogs to IFAW's Mdzananda animal clinic. This clinic provides daily veterinary health care. It's the only clinic that provides this service for more than 1 million people who live on the Cape Flats outside Cape Town, South Africa.


## What Are You Saying?

 You can tell what a dog is trying to communicate by its body language. Look at the dog's tail, fur, ears, mouth, eyes, and posture.

## Living with Cats and Dogs

As long as they have lived with humans, dogs and cats have helped us. Herding dogs guard sheep and cows. Sled dogs pull gear. Watchdogs guard our homes and businesses. Cats protect our food and crops by hunting animals such as rats, mice, cockroaches, and snakes in places like ships, barns, and fields.

In some places, dogs help people with disabilities. Guide dogs lead people who are blind. Therapy dogs and cats visit sick people in hospitals.

Dogs sometimes help in dangerous places. Police dogs sniff out drugs or explosives. Dogs have joined the military from ancient times to today. They've served as messengers, scouts, and sentries. Search-and-rescue dogs find people who are trapped during natural disasters. These brave dogs also comfort human workers.



Moses became an orphan as a young boy in South Africa. IFAW workers met Moses when he was living alone in a dump, searching for food and shelter every day. Even though he was hungry and cold, he took care of 20 or more dogs at the dump. They protected him and were his friends. IFAW gave the dogs the medical care they needed. IFAW provided Moses with food, clothing, medical care, and school tuition. Moses shows us that even in terrible situations, dogs and people can help each other.

Animals help humans even when they aren't working. Petting a dog or cat can reduce stress. Dogs and cats teach us empathy, or caring for others. They make our communities more interesting.

Dogs and cats make people and communities healthier and happier. How do we make animals healthy and happy? How do we hold up our end of the deal?

Animal Action Education

## Caring for Cats $\in$ Dogs

Like people, cats and dogs need water, food, shelter, exercise, companionship, and medical care. All cats and dogs depend on people to provide for these needs:

## Water

Cats and dogs need clean water every day. They drink water in every kind of weather.

## Food

Animals need the right kind of food. Cats need foods made of meat. Dogs eat foods made of meat and plants. Some cats and dogs eat special pet food.
Other cats and dogs eat the same food as people.

## Shelter

All dogs and cats need shelter. They need to stay safe from the weather and predators. In hot places, they need a shelter in the shade.

Free-roaming dogs and cats find shelter wherever they can. They may live in old buildings or in pipes.
They may even dig their own dens.



Dogs need exercise every day. They like to walk, run, and play. Cats also need exercise. They like to playhunt.

## Veterinary Care

Many animals try to hide feelings of sickness or pain. If an animal is sick, he may need to see a veterinarian. Even when an animal is healthy, vets give vaccinations that prevent diseases. Vaccinations stop diseases from spreading to other animals and people.


## Express Natural Behavior

If you had plenty of food, water, shelter, and medical care, but you were not free to go outside or spend time with friends, you would not be happy. The same is true for animals. Cats and dogs need to show their natural behavior.

Dogs need to bond with a "team." Most dogs like to spend time with people and with other dogs. Most dogs need time to learn how to act around others.

Cats bond with people in many different ways. Some cats are very friendly, while others prefer to stay away from people. But even if cats or dogs seem unfriendly, they still depend on people.

Sometimes, people might not like an animal's behavior. Cats may scratch on furniture. Dogs might bark, jump, chase, or chew things. But these behaviors are natural. Cats scratch to mark their territory. Dogs bark and jump when they are excited. They chew furniture when they are bored or lonely. Many of these problems can be solved by giving animals a safe way to act naturally. Cats can use a scratching post. Dogs may need more attention, exercise, space, and time to play with other dogs.


Some people try to "fix" their pets' behavior permanently. Cats get de-clawed. The ends of their paws are removed by a surgeon. De-clawed cats have trouble climbing, jumping, and hunting. Dogs get "de-barked." Their vocal cords are cut. De-barking can cause dangerous scar tissue that blocks their breathing. Because these surgeries hurt the animals, it's best to find other ways to deal with behavior that people dislike.


## Community Action in Bali

Many places don't have vets. This means people can't get help when their animal is sick. Other people can't afford a vet, or don't have a way to get their animal to a vet. On the island of Bali in Indonesia, many people have trouble getting medical care for their animals. Some people don't realize that animals need vet care to be healthy.

IFAW works with the Bali Animal Welfare Association to educate and engage banjars, which are similar to neighborhoods. Together, these groups develop community action plans to solve dog and cat health, safety, and welfare problems. The project also provides veterinary services. IFAW's support is helping hundreds of dogs every year transform from sick, hungry creatures to healthy, happy animals with owners who have a better understanding of how to meet their needs.

IFAW

## Holding Up Our End of the Deal

Animals give people friendship, work, and fun. People give animals food, water, shelter, and space to act naturally. Those are the two ends of the "deal" of domestication. Unfortunately, people don't always meet their end of the deal.

Some people don't understand what animals need. They may not realize that they are being neglectful or cruel. They may leave their pets in the wild. They think they have "set them free." Or they may try to care for too many animals at once. They might not realize that animals need more than food and water. Some people do not recognize that other animals, even cats and dogs, can suffer or feel pain.

Other people cannot afford enough food, space, or vet care. They may live in an area where vet care isn't nearby.

A few people are cruel. They may hurt or scare animals on purpose. They may breed animals in filthy, overcrowded spaces to sell the puppies and kittens for money. In some countries, people raise cats and dogs in similar harsh conditions for meat and fur. Some force greyhounds to race just for gambling.

When people don't hold up their end of the deal, the whole community suffers. Mistreated animals are scared, hungry, and they don't trust humans. They may be noisy. They may have diseases that can spread. They may defend themselves by biting or scratching. Animals may have unwanted puppies and kittens. There may be too many animals for a community to care for.

In some places, it seems like there are too many animals. Sometimes there are more cats and dogs than a community can care for. But most often, "too many animals" means that animals are doing things people don't like.

People might be afraid that "too many" dogs and cats will spread diseases, such as rabies. They are afraid of animals biting or scratching. They are angry when animals pee or poop in public places, bark, or get into garbage. People may be upset when animals are suffering.

People may think the best thing to do is reduce the number of animals. They may want to round up cats and dogs and kill them. But these problems are not from too many animals-they are from not enough care. Killing animals will not help. Caring for animals will.


If a community has more animals than it can care for, spaying and neutering can help. Spaying and neutering are surgeries that keep animals from having young. But spaying and neutering animals won't fix all the problems by itself. If people are afraid of diseases, vaccinations and vet care can help. If people don't like the animals' behavior, then education about how to address the behavior will help.

Humans and animals live together in a community. Our community can only be happy and healthy when we both hold up our end of the deal. Cats and dogs depend on us. We also depend on them. We care for them, and they enrich our lives. When we care for animals, we care for our community and for ourselves.

## Glossary

affection: actions that show friendliness or love
ancestors: animals from long ago that evolved into modern animals
companion animals: dogs and cats that live with and form close bonds with humans
concentrated: very dense or strong, with little water
cruel: deliberately causing pain or suffering
domesticated animals: animals that have been changed physically and mentally so that they live close with and depend on people
empathy: understanding and experiencing the feelings of others
feline: relating to cats
feral: a domesticated animal that survives in a wild state; feral animals are often too scared of people to live close to them
free-roaming: not under a person's direct control or kept in by a physical barrier
groom: clean or neaten
neutering: a surgical procedure that prevents male animals from breeding
physical needs: what a living thing needs to stay alive, including food, water, and protection from the weather and enemies
spaying: a surgical procedure that prevents female animals from breeding territory: the area from which an animal (or group of animals) keeps out other members of the same species
vaccinations: medications that prevent disease
veterinarian: a doctor who provides medical care for animals
welfare: the state of physical and mental well-being


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