



# Educator's Kit for love in their hearts

**Marc Bekoff &  
Jeff Campbell**

## CONTENTS

About the Book & About the Authors..... 2

About This Study Guide & ELA Common Core State Standards: Science..... 3

Personal Connections: Animals in My Life..... 4

Ethology: The Science of Emotions..... 5

Animal Emotions: Seeing What Animals Feel..... 6

Citizen Science: Testing Theories, Gathering Proof..... 7

Jane Goodall: Advocate for Humane Education..... 8

Bioethics 1: The Impacts of Captivity..... 9

Bioethics 2: Coexistence with Wildlife..... 10

Further Resources ..... 11

## CREDITS

Educator's Kit: written by Jeff Campbell, designed by Miranda Campbell

Copyright © 2026 by Marc Bekoff and Jeff Campbell

Educator's Kit photo credits: Pages 1, 3, 4, 7, 10, photos courtesy of Thomas D. Mangelsen, Images of Nature; page 2, photo by Neibrugge Images/Alamy; page 8, photo by Hugo van Lawick; page 11, photo ©2025maddalenabearzi/OCS (under NOAA permit)

*Love in Their Hearts*

ISBN (paperback): 978-1-968919-30-6

ISBN (ebook): 978-1-968919-31-3

Armin Lear Press, Inc.

215 W Riverside Drive, #4362 Estes Park, CO 80517

<https://arminlear.com>





## About the Book

*Love in Their Hearts* invites young and adult readers alike into the rich inner lives of animals. Through moving, often joyful true stories, the authors explore the widespread evidence of empathy, playfulness, curiosity, grief, anger, and love across the animal kingdom. Blending cutting-edge research, firsthand accounts from leading scientists, and a stirring call to compassionate action, this inspiring volume embodies the ethos of humane education—which teaches about the intrinsic value of life, our interconnectedness with nature, and the need to treat all animals humanely. Ultimately, *Love in Their Hearts* encourages readers to learn more and do more on behalf of all animals as we seek a better, kinder world. A foreword by Dr. Jane Goodall celebrates the book’s message of hope, responsibility, and connection.

## About the Authors

Marc Bekoff is professor emeritus of Ecology and Evolutionary Biology at the University of Colorado, Boulder. He has won many awards for his research and writing, including a Guggenheim Fellowship and the Exemplar Award from the Animal Behavior Society. He writes regularly for *Psychology Today* and has published more than thirty books, including *The Emotional Lives of Animals*. Jeff Campbell has written three books of young adult nonfiction: *Daisy to the Rescue* (an IPPY Gold Medal winner), *Last of the Giants*, and *Glowing Bunnies!?* (an SCBWI Golden Kite Award finalist). Formerly a Lonely Planet travel writer, he’s also a longtime book editor and writing teacher.

## About This Study Guide

The Educator’s Kit for *Love in Their Hearts* is designed to help anyone further explore the book’s concepts and themes, especially when leading group discussions. It’s made for classrooms (from middle school through high school), book clubs, libraries, animal shelters, animal organizations, and more.

The main guide is divided into seven parts. The first, “Personal Connections: Animals in My Life,” prompts readers to consider their own relationships with animals, and these open-ended reflections are perfect for guided discussions in any setting.

The next six parts examine specific themes, and each includes four sections: “Keywords & Concepts” points to where important terms are defined or explained. “Reading Responses” includes prompts that emphasize reading comprehension. “Group Discussions” provides open-ended prompts for readers to share and debate their thoughts. And “Projects & Papers” provides activities and writing assignments; some require further research, thus extending learning. However, many projects could be turned into group discussions, and vice versa.

All prompts are keyed to page numbers in the book.

## ELA Common Core State Standards: Science

This Educator’s Kit is designed to align with the following science-related English Language Arts (ELA) Common Core State Standards (CCSS, [www.thecorestandards.org/ELA-Literacy](http://www.thecorestandards.org/ELA-Literacy)).

**Grades 6-8:** RST.6-8.1, RST.6-8.2, RST.6-8.3, RST.6-8.4, RST.6-8.5, RST.6-8.6, RST.6-8.8

**Grades 9-10:** RST.9-10.1, RST.9-10.2, RST.9-10.3, RST.9-10.4, RST.9-10.5, RST.9-10.6, RST.9-10.8

**Grades 11-12:** RST.11-12.1, RST.11-12.2, RST.11-12.3, RST.11-12.4, RST.11-12.5, RST.11-12.6, RST.11-12.8



# personal reflections: animals in my life

Throughout *Love in Their Hearts*, scientists, researchers, and activists share their own moving experiences with animals, and here, readers are asked to do the same.

- Like Jane Goodall and Rusty (page ii): Do you have (or did you grow up with) a companion animal who feels like a best friend? Describe them and why you feel that way.
- Like Marc Bekoff (pages 6-7): Do you crave time in nature and with animals (or did you when growing up)? Do you feel particularly connected to animals, and do animals connect with you?
- Like Maddalena Bearzi (page 43): Is there a place where you feel particularly connected to nature and wildlife? What about this place fosters this sense of connection?
- Like Breanna Locke (page 74): Do you have friends or a group who share your interests and/or concerns about animals and nature? Describe that community. If not, is there a community you wish you had?
- Like Camilla Fox (page 92) and Marlon Reis (page 193-94): Does your family keep lots of animals and/or connect with nature often, such as by camping? Describe how these experiences impact your feelings about nature and animals.
- Like Wendy Townsend (page 169-70): Is there a particular species you feel a special bond with? If so, why? Do you feel like you understand these animals best?
- Describe the most exciting wildlife encounter you've ever had. Why was it exciting, and what do you think the animal experienced?
- If you could directly experience the inner life of any species, which would you pick and why? What do you think it would be like?



# ethology: the science of emotions

## KEY WORDS & CONCEPTS

anthropomorphism (page 82), biocentric anthropomorphism (page 83), cognitive ethology (page 32), ethology (page 32), fieldwork (page 3), play signals (page 18), primary emotions (page 28), secondary emotions (page 28)

## READING RESPONSES

- Charles Darwin named six primary emotions (page 28). What are they and what defines them as primary?
- What are secondary emotions (page 28)? Name some examples. Why are some “social” emotions?
- What is the distinction between ethology and cognitive ethology (page 32)? Name some of the questions the field of ethology tries to answer.
- In your own words, what is anthropomorphism (page 82)? Explain why scientists have long considered it a problem. Then, how does what Marc calls “biocentric anthropomorphism” treat this impulse appropriately?
- When dogs do a “play bow,” what messages might they be communicating (pages 18-19)? Either from your own observations or from the stories in chapter 1, what are some other types of play signals?
- What are some of the functions of play, and what might play indicate animals understand (page 19-22)?
- In “Job Application: Rat Lifeguard in the Rodent Pool” (pages 46-47), name two methods scientists have used to study empathy in captive rats. If you were in these experiments, how might you respond?
- Name the two main criteria scientists use to define altruism in animals (page 184). In “It’s a Bird, It’s a Plane, It’s ... Humpback Whales!” (pages 190-93), how does humpback whale behavior challenge that definition?

## GROUP DISCUSSIONS

**Fieldwork: Animals Up Close:** Read the three “Field Notes” stories (“Paidia Plays with Her Cubs,” pages 13-16; “Penguin Pranksters,” page 142-44; and “Grooming David Greybeard,” pages 159-64). Then reflect on what, to you, are the scariest, funniest, most challenging, and/or most exciting aspects of fieldwork. If you did fieldwork, which species would you choose, and which avoid, and why?

**Intuition Versus Anthropomorphism:** In the sidebar “Anthropomorphism: How We Talk about Animal Emotions” (pages 82-83), discuss whether you agree with the authors’ explanation of anthropomorphism. Discuss ways to correctly understand or interpret animal emotions to avoid inaccurately projecting human emotions. Discuss whether you think untrained people can correctly intuit animal emotions. Consider examples like “Making Friends with an Alien” (pages 60-64), “Don’t Diss the Matriarch” (pages 132-36), and “Dolphin Versus Shark” (pages 186-90).

## PAPERS & PROJECTS

**Sensory Awareness:** Different species have different primary senses. In a paper, choose an animal, research and describe how they use their senses, and speculate about how they might experience the world. In what ways might their emotional or inner lives differ from humans? Perhaps choose an animal described in this book (such as octopuses, chimpanzees, or rats), or read a book about animal senses like *An Immense World* by Ed Yong.

Or: Create a chart for a range of species (including humans) comparing the strengths and weaknesses of the five senses. In the chart, summarize how this mix influences how each species communicates and how they might interpret other species.

**Appropriate Language:** Read the sidebar “Names Versus Numbers: Words Matter” (page 48): Write a paper that discusses whether you agree with the authors about the impact of subjective/objective language; use examples. Distinguish the use of terms in different contexts. When impacts are negative, propose solutions or alternate language. Raise examples from the book, such as Jane Goodall naming her study subjects (page iii), the numbering of farm animals (“Cow #6490,” pages 78-81) and the numbering of wildlife (“Mother Bear: Queen of the Tetons,” pages 170-77).

# animal emotions: seeing what animals feel

## KEY WORDS & CONCEPTS

comparing emotions (page 78), emotions versus feelings (page 27), empathy (page 39), moral sensibility in animals (pages 21-22), sentience, criteria for evaluating (page 84), social emotions, difficulty of identifying (page 142)

## READING RESPONSES

- How do the authors define love (page 155-56)? Do you agree, and how might you define it?
- What can an elephant's kiss communicate (page 158)? Are human kisses just as complicated?
- In "One of the Herd" (pages 164-69) and "Field Notes: Grooming David Greybeard" (pages 159-64), what can mutual grooming signal? Can you think of other things?
- In "Don't Diss the Matriarch" (pages 132-36), what behaviors convey Freya's anger? What is similar or different to how people display anger?
- How did Alex, the African grey parrot, express his feelings with both words and gestures ("Want a Nut," pages 124-27)?
- In "No Quid Pro Quo" (pages 145-47), describe the behaviors and context that led researchers to think that the baboon Pat felt resentment.
- Why is it hard to recognize awe, wonder, and spiritual emotions? Do you think Jane Goodall observed this in chimpanzees during rain and waterfall dances ("The Great Rain, the Mighty Waterfall," pages 70-73)?
- What are some things plants do that resemble emotional or intentional behavior ("The Inner Lives of Plants," 131-32)? Do you think any of these may indicate plant sentience?

## GROUP DISCUSSIONS

**You Feel Me, Bro?:** Scientists struggle to define emotions, so starting with the explanations and definitions in the sidebar "What Are Emotions?" (pages 27-28), come up with your own definition. Characterize the ways that emotions can or might be universal among all sentient animals while also being different or distinct between species, or even individuals. How might different bodies, social lives, and individual experiences result in different emotions?

## PAPERS & PROJECTS

**Observe a Pet:** To practice observing animal emotions, use a pet, whether yours or someone else's. Give the animal a variety of prompts, watch how they react, and speculate about how they feel. For instance, say words they do and don't know, show them objects they do and don't know, have them meet people they do and don't know, and so on. Make sure the animal is completely free to do whatever they want, even leave or quit. If they do, what might that mean?

This can be a casual activity at home, like a game with the whole family. Or make it a classroom activity with a class pet that includes a group discussion, or create a formal research project (see "Citizen Science" below).

**Backyard Fieldword:** Practice fieldwork where you live. On your own or as a class, find a natural space, like an unfenced backyard or park, and observe everyday wild animals, like birds, squirrels, rabbits, or deer. Just watch quietly and speculate about their intentions and emotions as they go about their lives; if you wish, take notes. Other ideas are to visit an animal sanctuary or farm—so long as animals are uncaged and can choose what to do.

Like observing a pet, this could be a casual activity to try whenever you are in nature. Or turn this into a more formal activity in which you take notes and share observations as a group, or create a formal research project (see "Citizen Science" below).

# citizen science: testing theories, gathering proof

## KEY WORDS & CONCEPTS

citizen science (page 33), ethogram (page 36), research guide (pages 35-37)

## READING RESPONSES

- What are the seven steps of Marc's guide to conducting an ethological research project (pages 35-37)?
- In Marc's field notes at the start of "Dogs Just Wanna Have Fun" (pages 16-17), which of the observed canine behaviors might mean "I want to play"?
- What is an ethogram and how is it used (page 36)?
- When studying animals, what are three methods for tracking behaviors (page 36)?
- When Jane Goodall first studied chimpanzees, she didn't have any scientific training. What qualities did Jane possess that inspired Louis Leakey to hire her (page 33)? Why are those important?
- In "Wildlife Guide: Stranger Things" (page 84-87), researchers name eight criteria for evaluating whether an animal might be sentient. Five criteria are behaviors related to pain and suffering. What are those five behaviors? Can you think of others?
- In "It's a Bird, It's a Plane, It's ... Humpback Whales!" (pages 190-93), researchers observed a behavior they'd never seen before. What was it? And how did they gather more evidence of this behavior?

## GROUP DISCUSSIONS

**Asking Good Questions:** After observing animals (see "Animal Emotions" above), each person can share what they saw. Focus on behaviors that were puzzling or had unclear intentions. Might one behavior mean several things depending on context? Everyone can help brainstorm questions based on the observations of others. After listing several questions, discuss as a group how to rephrase each one in a way that could be measured or quantified using observable behaviors. This is steps 1 and 2 of Marc's guide to research (page 35). Perhaps devise a method for testing these behaviors (step 3). The discussion can end here, since practicing good questions is an important skill. Or continue with a research project below.

## PAPERS & PROJECTS

**Draft a Research Project:** Following Marc's seven-step guide to research (pages 35-36), develop a research project related to animal behavior and emotions. Use Marc's example of the canine "yellow snow test" to help develop each aspect of the study. The goal is to draft a full study proposal, not conduct the study. Instead, make the study as feasible and realistic as possible, assuming plenty of time and resources.

Or: Do the research and publish the results (in a paper).

**Conduct Field Research:** Review the five behavioral criteria used to evaluate evidence of pain or suffering ("Wildlife Guide: Stranger Things," pages 84-87). Then develop an ethogram of potential behaviors for a specific species (or several species), and observe captive members of that species in any setting: at home, at school, on a farm, in a zoo, and so on. Ideally, perform observations several times, and summarize your data. In a paper or presentation, speculate what your results might indicate.



# jane goodall: advocate for humane education

## KEY WORDS & CONCEPTS

David Greybeard (pages 159-64), early life (pages ii-iii), humane education (page 55), Jane Goodall's Roots & Shoots (pages 64-65)



## READING RESPONSES

- What experiences helped inspire Jane Goodall to want to study animals as an adult (pages ii-iii)? Have you had similar experiences?
- What was the biggest problem Jane had when she began studying wild chimpanzees (“Field Notes: Grooming David Greybeard,” pages 159-64)? What were some ways she solved it?
- Why was David Greybeard so important to Jane Goodall’s study of chimpanzees (page 164)?
- During her Gombe chimpanzee study (pages 159-64), Jane sometimes interacted directly with the chimpanzees. What were some problems that arose, and what did she suggest not doing in the future and why?
- In “The Great Rain, the Mighty Waterfall” (pages 70-73), Jane describes witnessing two chimpanzee rituals. What were they, what emotions did she think these behaviors displayed, and what do you think they showed?
- What is the four-step formula that Jane Goodall’s Roots & Shoots developed for taking positive action (pages 64-65)?
- What are the goals of humane education, and how does it differ from a “typical” classroom (“Get Started: Humane Education—Compassion in the Classroom,” pages 55-57)?

## GROUP DISCUSSIONS

**The Ten Trusts:** As a group, review the Ten Trusts that Marc and Jane Goodall created, which represent a mindset of compassionate action (pages 207-8). Discuss what each one means in practical terms. What do they ask people to do? Discuss which seem like the most important ones and why. Then identify as many positive examples as you can of how the Ten Trusts are being followed today. Which need the most improvement? Are there other “trusts” you would add to this list?

## PAPERS & PROJECTS

**Class Pets:** Assess the care of any animals kept at your school. First, make a list of any animals who are kept at school. Then develop a rubric for care: make a list of items that are needed for adequate care (in your opinion) and define quantitative measures and a range of standards—say, worse, adequate, good, excellent. After assessing the care of school animals, summarize this in a paper. If you wish, praise caretakers who are doing a good job and/or request specific improvements for animals you think need better care.

**You, Jane:** Using further research, write a short biographical paper of Jane Goodall. This could be a summary of her life and work, or it might focus on one of the two things she wanted to be remembered for: her groundbreaking chimpanzee research in Gombe, or her founding of Roots & Shoots (page iv). Why were these important to her, and why do they remain important to the world?

# bioethics 1: the impacts of captivity

## KEY WORDS & CONCEPTS

animal welfare versus well-being (page 138), captivity effects (page 118), nonhuman animal rights (page 139), stereotypic behaviors (stereotypies, page 118), US Federal Animal Welfare Act (AWA, pages 137-38), zoochosis (page 120), zoathanasia (page 121)

## READING RESPONSES

- In “Wanted by the ZBI” (pages 66-69), what are some ways that orangutans have escaped their enclosures? What are possible reasons for these escapes?
- In what ways do dairy farms negatively impact the physical and emotional well-being of cows (“Cow #6490,” pages 78-81)?
- What are “captivity effects,” and what causes them? Give some examples of “stereotypic behaviors” (page 118).
- In captive pigs, why are withdrawal and a lack of expressiveness recognized as problematic signs, and what do they indicate (pages 118-19)?
- In “Jasper: The Spokes-Bear for Forgiveness and Hope” (pages 88-91), what signs indicated that Jasper had mostly recovered from trauma?
- For dolphins, what are some ways that captivity differs from life in the wild, and what are some impacts of captivity (“Captive Dolphin Depression Syndrome,” pages 111-17)?
- How does captivity impact the society of killer whales and how they interact with each other (133-35)?
- What does Marc mean by the phrase “unleash your pet” (pages 75-76)? Provide a few examples, whether mentioned in the book or not.
- What are some examples of animals who are excluded from federal welfare protections (“Get Started: Defining Animals—Laws, Regulation, and Rights,” pages 137-40)?

## GROUP DISCUSSIONS

**Life in a Cage:** Many of the book’s stories describe animals in captivity, but three humorously imagine the perspectives of the animals themselves: “Job Application: Rat Lifeguard in the Rodent Pool” (pages 46-47), “Wanted by the ZBI” (pages 66-69), and “On Trial: The People Vs. Octopuses” (pages 127-30). Do these imagined perspectives seem accurate or unlikely? Discuss how any captive animal might feel, and consider the potential differences among species. If another species kept humans in cages, what might we understand and feel?

**Making Distinctions:** Discuss whether certain species should not be kept in zoos and waterparks and why. Review “Get Started: The Problems with Zoos and Waterparks” (pages 120-21) and “Get Started: Defining Animals—Laws, Regulation, and Rights”(pages 137-40). Do some species suffer too much to be caged, or should some species be given an inherent “right” to freedom? Make and define distinctions among species. If certain species should never be caged, speculate on the impacts this might have in the world if this was done.

## PAPERS & PROJECTS

**Comparison Chart of Daily Life:** Visit a zoo and document the living conditions of five or more different species: birds, reptiles, sea creatures, bears, lions, rodents, elephants, and so on. Then research how each species lives in the wild: their typical diet, climate, range, social life, and so on. Create a chart that compares life in captivity and in the wild for each species. Summarize how much the zoo differs from and/or resembles the environment that each species evolved in. For extra credit, suggest some ways that zoos could improve life for each species.

**Case Study: Who Was Happy?** The court case of the elephant Happy, who lived in the Bronx Zoo until she died in 2026, is briefly summarized in “Get Started: Defining Animals—Laws, Regulation, and Rights” (pages 137-40). Do more research and explain this case: Describe how Happy came to the zoo, the legal argument for freeing Happy, and the final ruling of the Bronx Supreme Court. Explain the concept of “nonhuman animal rights.” For extra credit, if the lawyers for Happy had won their case, discuss the possible impacts if elephants were designated as “legal persons” and granted certain rights?

# bioethics 2: coexistence with wildlife

## KEY WORDS & CONCEPTS

“bear jams” (page 175), compassion footprint (page 93), compassionate conservation (page 180), hazing (page 175), rewilding (page 205), the Ten Trusts (pages 207-8), wildlife corridors (page 151)

## READING RESPONSES

- In “One of the Herd” (pages 164-69), how does ethologist Joe Hutto gain the trust of a herd of wild mule deer? How does he behave while walking with them as they browse the landscape?
- “A Knotty Question” (pages 194-97) tells stories of people helping untangle whales and manta rays from fishing nets. What behaviors might indicate the animals know humans are helping and that the animals feel grateful?
- In “Mother Bear: Queen of the Tetons” (pages 170-77), what are some causes of bear-human conflicts? Why is relocating bears sometimes ineffective?
- In “Part of the Family” (pages 200-204), what is Willie Smits’s strategy to save endangered orangutans? How does he get people involved as stakeholders?
- In the sidebar “Young People Take Action” (pages 197-200), what wildlife conflicts are Richard Turere and Romain Jawwad trying to solve? What devices do they invent? What other wildlife conflicts might those devices help solve?



## GROUP DISCUSSIONS

**Wildlife in Our Towns:** Discuss the most common human-wildlife conflicts where you live. Then speculate what people might do, or how we might change our behavior, to minimize or eliminate those conflicts. Discuss which solutions seem the most “realistic,” and which don’t seem practical, and why. To generate thoughts, review “Get Started: Putting Out the Welcome Mat—Wildlife in Our Backyards” (pages 150-53).

**Saving Species Versus Individuals:** Review “Get Started: Compassionate Conservation—Who Lives, Who Dies, and Why” (pages 178-81). Then discuss the ethical dilemma of whether it’s okay to kill some individual animals when that’s considered necessary to help save an endangered species. Use the examples in the book or raise others. Discuss how, or if, the circumstances of a particular conservation effort might change which decision seems “most ethical” and/or “most effective.”

## PAPERS & PROJECTS

**Save a Species:** Research an endangered species, or an endangered environment, not described in the book. In a paper, describe the problems and conflicts involved, and suggest a plan for solving them. As Willie Smits does to save orangutans (“Part of the Family,” pages 200-204), list each stakeholder—among wildlife, people, and nature—and characterize everyone’s impacts and needs. Try to propose solutions that benefit each stakeholder, so that everyone supports this conservation effort.

**Rewilding Our Hearts:** Marc’s concept of “rewilding” means, among other things, adopting a mindset that all beings have “an equal right to life” (pages 204-6). Write an essay about what “rewilding” means to you and how society and animal-related laws could be changed to reflect that mindset. Review “Get Started: Defining Animals—Laws, Regulation, and Rights” (pages 137-40) for a brief summary of some existing laws.

# further resources

This is a short list of recommendations; for more, see the book’s “Select Bibliography” and “Get Started Resources” (pages 211-17).

## BOOKS

*The Emotional Lives of Animals, Revised Edition*, by Marc Bekoff

*Fuzz: When Nature Breaks the Law* by Mary Roach

*How to Be a Good Creature* by Sy Montgomery

*How to Speak Whale: A Voyage into the Future of Animal Communication* by Tom Mustill

*An Immense World: How Animal Senses Reveal the Hidden Realms Around Us* by Ed Yong

*Jane Goodall: 50 Years at Gombe* by Jane Goodall

*Meet the Neighbors: Animal Minds and Life in a More-Than-Human World* by Brandon Keim

*Wild Rituals: 10 Lessons Animals Can Teach Us about Connection, Community, and Ourselves* by Caitlin O’Connell

## MOVIES

*All That Breathes* (2022)

*Blackfish* (2013)

*Born to Be Wild* (2011)

*The Cove* (2009)

*Jane* (2017)

*My Octopus Teacher* (2020)

*Oceans* (2010)

*Planet Earth: One Amazing Day* (2017)

## ORGANIZATIONS

**Born Free:** [www.bornfree.org.uk](http://www.bornfree.org.uk)

**Institute for Humane Education:**

<https://humaneeducation.org>

**Jane Goodall Institute:** <https://janegoodall.org>

**National Audubon Society:** [www.audubon.org](http://www.audubon.org)

**Nonhuman Rights Project:**

[www.nonhumanrights.org](http://www.nonhumanrights.org)

**Jane Goodall’s Roots & Shoots:**

<https://rootsandshoots.global>

