Did you know that a tabby cat was the mayor of Talkeetna, Alaska for 20 years? Were you aware that a cat's brain is 90% similar to a human brain? Have you noticed that cats have a dominate paw like most humans have a dominate hand? Learn about the history, genetics, biology, and behaviors of cats and discover all the reasons they are terrific companions through this project.

Exploring 4-H Cats
Spark Activity: Sensitive Senses

Cats have six senses just like humans. In fact, many of their senses are more sensitive than the human equivalent. Each cat has its own way of reacting to stimuli that is a combination of genetics, personality, heightened level of a specific sense and the circumstances surrounding the stimuli. Perform the following experiments on at least two cats, observe their responses, and try to determine which senses were triggered in the cat.

<table>
<thead>
<tr>
<th>Experiment</th>
<th>What physical changes do you observe?</th>
<th>What senses were used?</th>
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<tr>
<td>Play a recording of cats or kittens crying.</td>
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<td>Put a video of fish swimming in front of the cat.</td>
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<td>Blow bubbles that will float down and land on the cat.</td>
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<td>Silently open a package of tuna or can of tuna when the cat is in the same room.</td>
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<tr>
<td>Switch out the cat’s normal drinking water with a different kind, such as distilled, bottled, or vitamin.</td>
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What responses were similar between cats?
What responses were different?
What do you think caused the different responses?
Which senses appeared to be the strongest? The weakest?

4-H Project Levels and Goals

**Beginner**
- Understand cat grooming habits
- Learn the nutritional requirements of cats
- Know basic vaccinations and preventative care measures
- Identify and understand common behavior
- Chart the history of domestic cats

**Intermediate**
- Understand why and when to spay/neuter
- Recognize behaviors that signify a medical issue
- Learn breeds and breed characteristics
- Learn the anatomy of a cat
- Identify common cat parasites and how to treat or prevent

**Advanced**
- Research commonly undiagnosed and/or untreatable conditions
- Recognize health issues & dietary changes related to aging
- Understand the reproductive cycle
- Explore the debate around declawing
- Predict characteristics based on knowledge of genetics and selective breeding
Put Your Project Into Action

Show Your Skills
- Create your own recipe for cat food and explain the nutritional benefit of the ingredients
- Make a poster describing a disease in cats and why it often goes undiagnosed
- Create a display of items harmful/toxic to cats
- Make a poster comparing and contrasting wild and domestic cats

Service and Leadership
- Volunteer at a shelter
- Start a program reading to cats at a shelter
- Organize a cat food drive for a local shelter
- Cat sit for a neighbor or friend
- Photograph local “celebrity” cats for a calendar and sell to raise money for a worthy cause
- Give a talk/demonstration on proper care of cats
- Mentor youth new to the cat project
- Organize a cat/pet show for your 4-H club
- Research cat population in your area and promote the importance of spaying/neutering

Entrepreneurship
- Make and sell diet appropriate cat treats
- Make and sell cat toys
- Design and build cat scratching or climbing post
- Start a business photographing cats

Technology Connection
- Design a new cat toy based on cat behavior and bring it to life using a 3-D printer
- Create a robotic self-cleaning litter box
- Create an app that will engage and stimulate cats
- Develop a motion activated toy

Connecting with a Mentor
- Speak to your local veterinarian about job shadowing
- Contact your local shelter to be connected with people who work directly with cats
- Ask your 4-H leader or Extension Staff to pair you with an older member with experience
- Ask a veterinary clinic about local cat breeders

Events
- 4-H Show
- Pet adoption days at local shelters
- Cat Con
- Cat shows, Festivals and Conventions

Start a Conversation
How do you think a cat would react to a loud noise?
Why are there so many different types of cat food?
Why is it important for cats to have regular veterinary check-ups?

Want to learn more?
go.illinois.edu/4Hcats

Explore more at Illinois 4-H!
4-H.extension.illinois.edu

Careers for People Interested in Cats
Veterinarian
Veterinary Technician
Animal Nutritionist
Cat Breeder
Pharmaceutical Research

Credits: Patrick Fairbrother, DVM and the staff at Vet Care Associates | AVMA - www.avma.org | 4-H Spark Sheets are a collaborative effort of 4-H staff, volunteers, alumni and teens from across Illinois. A big thanks to the many contributors and reviewers!