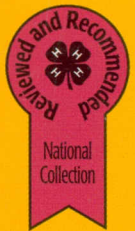# Leaping Forward



## Cat Youth Activity Guide

Name

County

# Brown Eyes/ Green Eyes

Genetics is a fascinating field of study. Every cat inherits certain physical characteristics from both its parents. This is the same as you inheriting your physical traits from your parents. These characteristics are determined by genes. For cats, genes represent a set of instructions that determine the cat's color, the length of its coat, the color of its eyes and much more. For every kitten in a litter the genes are arranged in a different order so each individual is genetically unique, no matter how similar in appearance. This activity will give you an idea about how genetics works.

*We both have straight hair!*

*Let's make some decisions!*

## Jump In

Solve the following genetic problems: The gene for brown eyes (B) is dominant and the gene for blue eyes (b) is recessive. An offspring with a Bb gene would have brown eyes. What would be the likelihood of each eye color of four offspring with one blue-eyed and one brown-eyed parent?

|   | B | B |
|---|---|---|
| b |   |   |
| b |   |   |

**Answer:** _____

*(Remember, dominant covers up recessive characteristics.)*

Now, if one of the Bb carrying individuals has offspring with another Bb individual, what is the probability of a blue-eyed offspring?

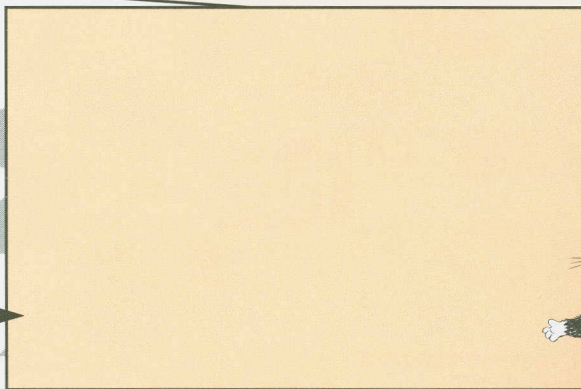|   | B | b |
|---|---|---|
| B |   |   |
| b |   |   |

**Answer:** _____

What will happen in the next generation if the blue-eyed individual has offspring with another blue-eyed individual? Draw your own chart here. ➡

## Cat Coat Patterns Word Find

```
M A C K E R E L T A B B Y J T
E C L N T M K Z O J B P H S Z
P T A S N N O Y R G K V H R U
P V S L P A M R T R I E B X Z
Z O S U I O S X O D L K E C J
F T I I A C T L I L E R J K N
Z E C N H W O T S H A D E D Q
I J T O T C Z J E R C W J W P
E D A J I E K X S D I Q B O S
G Y B B A T D E H C T A P D D
U Q B E T I C K E D T A B B Y
R E Y V J G C W L N S L B E G
C H I N C H I L L A A G L B M
N I F F L O U M D B X C A I Y
```

### Word Bank

Bicolor
Calico
Chinchilla
Classic Tabby
Mackerel

Tabby
Patched Tabby
Pointed
Shaded
Shell

Smoke
Spotted Tabby
Ticked Tabby
Tortoiseshell
Van

**Chapter 3**

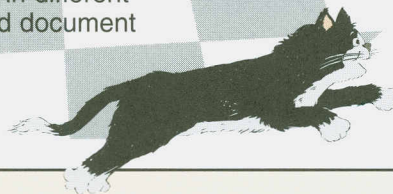## Scaredy Cat

**Cat Project Skill:**
Understanding cat behavior

**Life Skill:**
Learning to learn through observation

**Show What You Know:**
Observe different types of cat behavior under different situations.

**A**re some days more stressful for you than others? Your cat may have those kinds of days also. In this activity you will learn to recognize signs of stress in your cat. You will learn what cats do to help reduce their stress which is mainly caused by fear. These actions are called displacement signals.

### Jump In

Observe either your cat or a friend's cat in different environments and situations. Record and document the number of times you observe the displacement signals and signs of fear or stress in your cat in different situations.

Observe either your cat or a friend's cat in different environments and situations. In some cases, you may have to watch the cat for 20 or more minutes. In others, you should quickly notice signs of stress and ways he deals with that stress. Record what you observe under each heading for at least five of the situations. The cat may display one or more signs of stress or fear.

**1.**

| Situations | Signs of Stress or Fear | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Ears | Eyes | Whiskers | Body | Hair | Tail | Voice | General |
| Hungry | | | | | | | | |
| Strange person arrives | | | | | | | | |
| Strange cat arrives | | | | | | | | |
| Strange dog arrives | | | | | | | | |
| Riding in car | | | | | | | | |
| At Vet office | | | | | | | | |
| Sudden loud noise | | | | | | | | |
| Angry shouting | | | | | | | | |
| Several people talking | | | | | | | | |

Now record what kinds of signals you notice your cat displaying to express its stress or fear. For the situations you observed above, record the signals in the chart below.

**2.**

| Situations | Signs of Stress or Fear | | | | | | |
|---|---|---|---|---|---|---|---|
| | Ears | Eyes | Whiskers | Body | Hair | Tail | Face/Voice |
| Hungry | | | | | | | |
| Strange person arrives | | | | | | | |
| Strange cat arrives | | | | | | | |
| Strange dog arrives | | | | | | | |
| Riding in car | | | | | | | |
| At Vet office | | | | | | | |
| Sudden loud noise | | | | | | | |
| Angry shouting | | | | | | | |
| Several people talking | | | | | | | |