



# Cheetah Survival Game

## ***Grade Level***

Grade 4

## ***Engage***

This activity is designed to start your students in recognizing themselves as scientists and thinking critically about problem-solving. The goal is to teach concepts through discovery and to encourage using scientific thought processes. As with all lessons provided, please feel free to adapt them according to your students' abilities. You may find it more successful to lead activities and discussions as a whole group rather than using individual Research Plan sheets. Certain scientific vocabulary may or may not be appropriate for your students' level of understanding. Take these ideas, make them your own and your students will have a greater chance at success.

**How does a changing environment for a cheetah affect other organisms that share the same space? Is what's beneficial/detrimental for a cheetah also beneficial/detrimental for other organisms?**

1. Begin this lesson by asking your students what comes to mind when they think of cheetahs. Do they know of other living things that share the same environment as cheetah?
2. Explain that cheetahs are considered vulnerable, which means that the species is threatened with extinction. Tell your students that you will be playing a game to help them understand some of the natural and man-made threats cheetahs face in the wild.

## ***Explore***

3. Prepare for the game by gathering dice, printing and cutting survival scenario cards, and printing and cutting cheetah cards (2 per student plus 20 extra). Place the survival scenario cards in the center of the playing area. Give each player two cheetah cards to begin the game.
4. Each player should take a turn selecting a survival scenario card from the stack. Follow the instructions on each card. When conditions are favorable, the card may tell players to take a cheetah card or take another turn. When players encounter a hazard, they may lose a cheetah

### ***Adjustments for Social Distancing***

Place the pile of "scenario cards" on an empty desk in an area where the students can see them. Rather than having students come up and draw a card, you can draw and then read the card for them. Instead of handing out cheetah cards, have each student keep a tally of how many cheetahs they have on a sheet of paper at their desk.

card and/or a turn. For some scenarios, no cards will be gained or lost. Each of these scenarios contributes to a “fluctuating cheetah population.”

5. If a player runs out of cheetah cards, they did not survive and are out of the game. You can end the game after a certain amount of time has passed, after each player has taken a designated amount of turns, or until the scenario cards run out. A winner can be determined at the end of the game as the player with the most cheetah cards remaining OR players can continue playing until one person is left with cheetah cards, winning the cheetah survival game.

### ***Explain***

6. Not all cheetahs live a long life. Some will live, and some will die. Remind players of all the challenges they face in the wild. Using the chart below, categorize the reasons cheetahs survived or did not survive. Have players discuss who survived and who did not. More importantly, why did some cheetahs survive and some did not?
7. Compare and discuss the different survival scenarios that made players lose cheetah cards. What similarities do you see? What differences do you see?

### ***Expand***

8. Brainstorm what role cheetahs play in their environment with the students. Have them think about a cheetah’s place in a food web and what other living things are part of that web. If the environment changes for a population of cheetahs, how does having more or less cheetahs in the environment affect other organisms that live there? How do these organisms interact with cheetah? How do they interact with each other? Are the beneficial changes that affect cheetah also beneficial for other organisms? What about the detrimental changes?
9. With your students, discuss how knowing more about an animal can change how you view them and their role in the environment. Although cheetahs face many natural changes to their environment, many of the challenges they face in the wild, and in this game, are a result of human/wildlife conflict. Thinking back to the cheetah game they played, discuss if the challenges presented on the cards were natural or man-made. Were the challenges beneficial to their survival or harmful?
10. Encourage your students to learn more about the conflicts cheetahs encounter when living near humans and how they can be avoided.
11. Ask players to think back to the positive scenarios in the game that helped them survive as a cheetah. How were humans involved in those scenarios that helped cheetahs survive?

### ***Assess***

12. Have your students choose one challenge cheetahs face in the wild that you discussed in class. Using a computer or tablet, they should research that challenge. Have them also research how that challenge might affect another organism that shares habitat space with cheetah. Have them present a potential solution to the challenge cheetah face and how that solution affects, not only the cheetah, but the other organism they selected.
13. Students can make a poster or flier to present their findings to the class. These presentations should include the cheetah challenge they chose, why that challenge is harmful to cheetah survival, if that challenge is also detrimental (or beneficial) to the other organism they chose,

what their potential solution is, and how that solution would affect cheetahs and the other organism.

14. After all students have presented to the class, discuss the different solutions present. How were they similar? How were they different? How did solutions help cheetah? How did solutions that helped cheetah also affect other organisms that share the same space? Were they beneficial to those organisms or detrimental?

### ***Standards***

Ohio Academic Content Standards
Grade 4 Life Science Topic: Earth's Living History Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.

Cheetah did not survive because of:

## Cheetah cards



**Cubs start to hunt with mother.**

**Roll the dice to see how well they do.**

Roll an odd number – cubs learn the strangle hold. Gain one cheetah card.

Roll an even number – cubs let the prey escape and they go hungry. Lose your next turn.



**Roll the dice to find out if you are able to mate and start a family.**

Roll an odd number – you are able to mate. Gain three cheetah cards.

Roll an even number – you do not mate. Lose your next turn.



**A territorial fight breaks out between males. Roll the dice to find out your fate.**

Roll an odd number – You win! Mate and produce offspring. Gain two cheetah cards.

Roll an even number – You lose. Limp around and lose your next turn.



**A hyena finds the litter!**

**Some of the cubs are able to escape.**

Lose one cheetah card.



**Long dry season. Many prey  
migrate to find water.**

**Your weakest cub dies.**

**Lose one cheetah card.**



**Oh no! Electrified fence  
cuts off cheetah range.**

**You get too close and get  
a shock!**

**Lose one cheetah card.**



**Disease strikes! Roll the dice  
to find out your fate.**

**Roll an odd number – cheetahs with  
strong immune system survive.**

**Roll an even number – cheetahs with  
weak immune system die.  
Lose one cheetah card.**



**Lion attacks cubs eating  
prey! Roll the dice to find out  
the cubs' fate.**

**Roll an odd number – cubs  
escape and survive.**

**Roll an even number – a cub is  
wounded and dies.  
Lose one cheetah card.**



**Three healthy cubs are born!  
Do they survive?**

**Roll the dice to find out.**

**Roll an odd number – Mother  
successfully raises cubs.  
Gain three cheetah cards.**

**Roll an even number – Mother is killed  
and cubs starve.  
Lose two cheetah cards.**



**Climb onto your favorite play  
tree to look for prey and  
potential predators.**



**Good hunting! Keep the  
springbok?**

**Roll to find out.**

**Roll an odd number – Eat springbok.**

**Roll an even number – Lose the  
springbok to larger predators  
like lions or a leopard.  
Lose your next turn.**



**Farmer Johan protects  
cheetahs to attract tourists.  
Cheetahs Welcome!**





**See an injured warthog calf  
and make the chase.**

**Mother warthog comes to  
defend her calf and injures  
you.**



**Radio collared for research!**

**You get a medical check-up  
by a veterinarian and  
scientists. They remove  
some pesky and dangerous  
ticks from your skin.**



**Cheetah Trap!**

**Roll the dice to escape.**

**Roll an odd number – Lose your next  
turn.**

**Roll an even number – You escaped  
the trap!**



**Times are tough and you see  
goats that look like easy food.  
But a large dog comes out of  
nowhere barking loudly and  
growling.**

**You get scared and stay away.**



**You try to chase down a steenbok but it gets away. You are too tired to hunt again today. Try again tomorrow.**



**Good hunting! Keep the steenbok?**

**Roll to find out.**

**Roll an odd number – Eat the steenbok.**

**Roll an even number – Lose the steenbok to large predators like lion or leopard.  
Lose your next turn.**



**Shot at by Farmer Hertz at the play tree!**

**You are lucky this time and escape without being shot.**



**Rainy season has arrived and there are lots of antelope young to eat. Enjoy the feast while it lasts.**



**Farmer Heinz suspects a predator killed his livestock. He shoots at a cheetah and hits his mark.**

**Lose one cheetah card.**





# Cheetah Survival Game

## My Research Plan

How does a changing environment for a cheetah affect other organisms that share the same space? Is what's beneficial/detrimental for a cheetah also beneficial/detrimental for other organisms?

**1. What is my research question?**  
Is it a good question?



**2. How can I get my information?**



**3. What will I do with this information?**



**4. How will I know I did my job well?**

