



The Maze of Life

Description:

Black-footed ferrets have many physical and behavioural adaptations to help them survive in the temperate grasslands habitat. Students will use their knowledge from reading the background information to assist them in the maze activity.

Procedure:

- 1. Distribute a copy of the black-footed ferret information (found on pages 3-6) to each student.
- 2. Hand out a copy of the questions (page 63) and the *Maze of Life* activity to each student.
- 3. Students will answer the questions to reinforce the key facts about ferret life, their predators, their food, and how they use their senses to stay safe.





Student Page

Answer the following questions about the Black-footed ferret to guide you in the maze!

1. Black-footed ferrets are the only ferrets native to North America. They evolved from where

30,000 - 45,000 years ago.

- A. Europe
- B. Africa
- C. Siberia
- 2. One of the reasons the black-footed ferret became extinct in the wild was because...
 - A. Hunting
 - B. Lack of food & habitat
 - C. They moved back to Siberia
- 3. Black-footed ferrets are being reintroduced in which National Park?
 - A. Grasslands National Park, Canada
 - B. Prince Albert National Park, Canada
 - C. Wood Buffalo National Park, Canada



- 4. The black-footed ferrets are part of the Mustelid family that includes weasels, mink, badgers, otters, and...
 - **A**. Prairie Dogs
 - B. Wolverines
 - C. Squirrels
- 5. Black-footed ferrets have evolved to hunt with their...
 - A. Sharp claws
 - B. Strong jaw
 - *C*. Strong tail









Use the clues to find your way to the finish line.

Finish





Grassland Habitat: Home for the Black-footed Ferret

Description:

Grasslands National Park in Saskatchewan is the site of the reintroduction of black-footed ferrets into Canada. Students will use the vocabulary provided in the following two exercises to write a paragraph about the black-footed ferret.

Procedure:

- 1. Distribute the worksheets found on pages 26 and 27 to each student.
- Distribute a copy of the *Return of the Black-footed Ferret to Grasslands National Park Fall* 2009 (page 39) to each student.
- 3. Have the students read the information sheet and use the materials covered to complete the exercises.

Next Steps:

Discuss with the students what the reintroduction program is. Ask what steps are being done to ensure success? What is "boot camp"? Why is it important? Why is this reintroduction important for the grasslands ecosystem?





Grassland Habitat: Home for the Black-footed Ferret

	adaptation	а	the total number of a kind of animal living in an area or
			habitat
	agile	b	a series of organisms in which each uses the next usually
			lower member of the series as a food source
	biodiversity	с	land covered with herbs rather than shrubs and trees also
			the name of a national park in Canada
	community	d	variation in an environment as shown by numbers of
			different species of plants and animals
	curious	e	to return animals to the wild
	extirpated	f	a class of the same kind of plant or animal divided into
			groups by their characteristics
	food chain	g	a change in an organism that fits it better for the
			conditions of its environment.
	grasslands	h	active at night
	habitat	i	extinct in the wild
	kits	j	a group of living things that belong to one or more
		,	species, interact ecologically, and are located in one
			place
	nocturnal	k	the place where a plant or animal naturally or normally
			lives or grows
-	population	1	able to move quickly and easily
	reintroduce	m	baby farrets, short for kittens
	Tellitiouuce		
	species	n	an active desire to learn or to know

Match each word with its meaning.

What four things are needed in every habitat?

a. b. c. d.

Write a paragraph about black-footed ferrets using 4 of the above words from the matching activity.





Word Search

Find the words from the list below in the word search puzzle.

	-																					
		Ρ	Z	Ι	Α	С	Е	С	L	0	С	J	Х	Ρ	Z	Z	J	D	М	Т	J	
		S	0	D	Ρ	G	Х	C	В	G	G	L	F	C	Ε	L	G	В	Ε	Α	х	
		0	υ	Ρ	Е	\mathbf{Z}	G	G	U	Е	D	\mathbf{N}	Ν	Κ	L	U	г	W	v	т	Х	
		R	L	0	U	\mathbf{F}	Μ	v	R	D	Α	в	0	J	Κ	Ν	L	Х	G	Ι	Х	
		W	J	в	Ι	L	F	\mathbf{Z}	Ε	G	0	S	\mathbf{H}	в	S	Κ	D	W	Ν	в	S	
		S	D	W	G	R	Α	Ε	0	Ρ	Κ	R	Α	G	Ι	L	Ε	Y	U	Α	L	
		L	L	Q	Х	J	U	т	в	F	Ι	U	т	\mathbf{Z}	т	\mathbf{Z}	J	\mathbf{Z}	Е	н	V	
		V	Т	Ι	в	Ε	\mathbf{Z}	C	Ι	Ι	G	Ε	J	\mathbf{N}	В	Ρ	Y	D	Α	J	С	
		Ν	κ	ន	R	W	L	U	\mathbf{Z}	0	Μ	Α	F	\mathbf{N}	Ι	v	V	J	Κ	U	Y	
		Ρ	L	\mathbf{Z}	S	G	S	J	D	т	Ν	0	J	0	L	Ε	D	\mathbf{Z}	Y	C	R	
		C	J	Y	Ι	Ε	н	в	Q	0	0	R	υ	Ι	D	Ε	R	J	0	0	G	
		Y	Т	Ι	S	R	Ε	V	Ι	D	0	I	В	Т	Т	L	Ρ	Q	Х	Μ	H	
		W	S	J	Y	G	\mathbf{Z}	S	C	0	Ρ	т	Α	Α	C	Μ	U	Е	Α	Μ	R	
		V	0	Μ	Ν	0	Ε	H	S	Ε	H	C	Ρ	Т	\mathbf{Z}	Κ	Х	J	U	U	Α	
		С	Ε	Q	В	Ι	Α	Ρ	Х	ន	В	R	Y	Ρ	Α	Κ	L	В	Κ	Ν	L	
	ZMFC			Ι	Y	Х	R	Х	Ι	С	Х	Α	Ρ	Ν	L	Q	Μ	Ι	C			
		J	Κ	Ε	Ν	Ε	\mathbf{Z}	Μ	V	Т	С	L	L	D	F	Ρ	Ν	U	0	Т	S	
		В	Ρ	Ι	Y	в	D	\mathbf{Z}	Х	V	v	В	V	Α	Ρ	R	H	G	F	Y	J	
		S	R	V	т	U	G	Ε	Г	Α	Ν	R	υ	т	C	0	Ν	Q	С	н	т	
		Ι	в	V	Ι	ន	Κ	G	R	Α	S	S	L	Α	Ν	D	S	Ν	0	W	S	
ADAPTATION								AGILE							BIODIVERSITY							
COMMUNITY							CURIOUS							EXTIRPATED								
FOODCHAIN							GRASSLANDS							HABITAT								
KITS								N	IOC'	TUR	NAI				PC)PUI	LAT	ION				
REINTRODUCE									S	PEC	CIES											





Ρ	-	-	-	-	Ε	-	-	-	-	-	-	-	-	-	-	-	-	Т	-
S	0	-	-	-	-	C	-	-	-	-	-	-	-	-	-	-	-	Α	-
-	U	Ρ	-	-	-	-	U	-	-	-	-	-	-	-	-	-	-	т	-
-	-	0	U	-	-	-	-	D	-	-	-	-	-	-	-	-	-	I	-
-	-	-	Ι	L	-	-	-	-	0	-	-	-	-	-	-	-	-	в	-
-	_	_	_	R	Α	_	-	_	-	R	Α	G	I	L	Е	-	_	Α	-
_	_	_	_	_	U	т	_	_	_	_	т	_	_	_	_	_	_	н	-
_	-	_	_	_	_	C	I	-	_	-	_	Ν	-	-	_	_	_	_	_
_	_	_	_	_	_	_	_	0	_	_	F	Ν	I	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	Ν	0	_	0	_	Е	D	_	_	C	_
_	_	_	_	_	_	_	_	_	0	_	_	I	_	Е	R	_	_	0	_
Y	т	I	S	R	Е	v	I	D	0	I	в	т	т	_	_	_	_	Μ	_
_	_	_	_	_	_	S	C	_	_	_	_	Α	_	_	_	_	_	м	_
_	_	_	_	_	Е	н	-	_	_	_	Ρ	Т	_	_	_	_	_	U	_
_	_	_	_	Ι	A	_	_	_	_	R	_	P	_	_	_	_	_	Ν	_
_	_	_	С	Ι	_	_	_	_	Ι	_	_	A	_	_	_	_	_	I	_
_	к	Е	N	_	_	_	_	т	_	_	_	D	_	_	_	_	_	T	_
_	P	т	_	_	_	_	x	_	_	_	_	A	_	_	_	_	_	- Y	_
S	-	-	т	_	_	Е	т.	Δ	N	R	тт	т	С	0	N	_	_	_	_
-	_	_	-	C	_	C	Ð	Δ	2 2	<u> </u>	т	⊥ ⊼	N	Ъ		_	_	_	_
_	-	-	-	G	-	G	Л	A	G	G	ш	A	ΤN	ע	G	-	-	-	-

(Over,Down,Direction) ADAPTATION (13,3,N) COMMUNITY (19,10,S) FOODCHAIN (12,9,SW) KITS (2,17,SE) REINTRODUCE (16,11,NW)

AGILE (12,6, E) CURIOUS (7,8,NW) GRASSLANDS (7,20,E) NOCTURNAL (16,19, W) SPECIES (1,19,NE) BIODIVERSITY (12,12, W) EXTIRPATED (7,19,NE) HABITAT (19,7, N) POPULATION (1,10,SE)





Gym Activity: Black-footed ferrets, Prairie dogs, and Great-horned owls

Description:

Students through this simulation game will understand the role of predators, prey, consumers, and decomposers in a food chain found in the grasslands habitat. In this game, the food chain is as follows:



Materials:

- Gymnasium or playing field
- Paper to record data from each round of play

Procedure:

This game is similar to "Rock, Paper, Scissors" and "Giants, Wizards, Trolls".

- 1. Divide the students into two teams. Direct each team to go to opposite ends of the gymnasium.
- 2. Students decide what animal their team will be in the first round. They can be black-footed ferrets, prairie dogs, or great-horned owls. The entire team is the same animal.
- 3. Once each team has decided what animal they are, have the two teams line up, facing the opposing team, in the middle of the gymnasium (or playing field).
- 4. Everyone together then yells out "Ferret! Prairie dog! Owl!" followed by what creature the team is. For example, Team one might yell "Ferret, prairie dog, owl, owl" as they chose to be owls in the first round of play. The other team may yell "Ferret, prairie dog, owl, ferret" as they chose to be ferrets. In this example, owls prey on ferrets and thus the owl team "wins".
- 5. The winner of the round is determined as:





- Great-horned owls wins over ferrets (predator-prey)
- Black-footed ferrets win over prairie dogs (predator-prey)
- Prairie dogs win over Great horned owls (decomposers convert owls to nutrients that provide nourishment to the grasses that the prairie dogs eat)
- 6. The winning team then chases the losing team back to their side of the gymnasium.
- 7. Any student on the losing team tagged before reaching their side of the gymnasium now belongs to the other team.
- 8. In the situation where both teams end up being the same creature, consider it a tie and start over.
- 9. Continue playing rounds until the majority of students are on one team.

Next steps:

After each round is played, record the numbers of students on each team and what animal they are. Using this data, have the students graphically represent the changes in population between the rounds. Discuss how animal populations change with changes in predation patterns. What may contribute to these changes?

Math Project: Ferret Statistics

Grade 4:

- An adult male black-footed ferret can grow to a length of 61 cm, including a 15 cm tail. Without the tail, how long is the body of the black-footed ferret?
- 2. The black-footed ferret searches for food at night, often covering a distance of 6 kilometres in a single evening. How far would a black-footed ferret travel in one week? How far would the ferret travel in the month of June?

Grade 6:

- An adult male black-footed ferret has a mass of about 900 grams. A fully grown female is about 10% lighter. What is the mass of an adult female black-footed ferret?
- 2. An adult male black-footed ferret can grow to a length of 61 cm, including a 15 cm tail. Convert these measurements to mm (millimetres) and m (metres).

Full body length is 61 cm which is _____ mm or _____ m Tail length is 15 cm which is _____ mm or _____ m

 Prairie dogs make up 90 percent of the diet of the black-footed ferret. They also catch a variety of small animals: rabbits, ground squirrels, insects, and small birds. Create a graph to display this information.







