

Mission Challenge/SAR

Materials Needed:

- 3 Mission Cards - Grassland Guardians, Mountain & Island, Arctic Patrol
 - Dry Erase Marker
 - Cloth to wipe off cards at end
 - Map
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Introduction:

- In this challenge, each group will get a different mission card. They will all be going to the same animals, but the questions will be different. They need to completely fill out their card.
 - Tell them: You are a biologist studying different species. You need to document their IUCN status and gather information on each animal as to whether it is a predator/prey; what threats it is facing or has faced; where it is found (country/continent, etc); what habitat type it is found in; some of their defenses; their adaptations or what might dictate their survival. MOST of the information will be found on the signs at the animal enclosures, however, some may require the students to THINK and come up with the best possible answer.
 - LEADERS/TEACHER: HAS THE ANSWER CARD FOR EACH GROUP
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Mission:

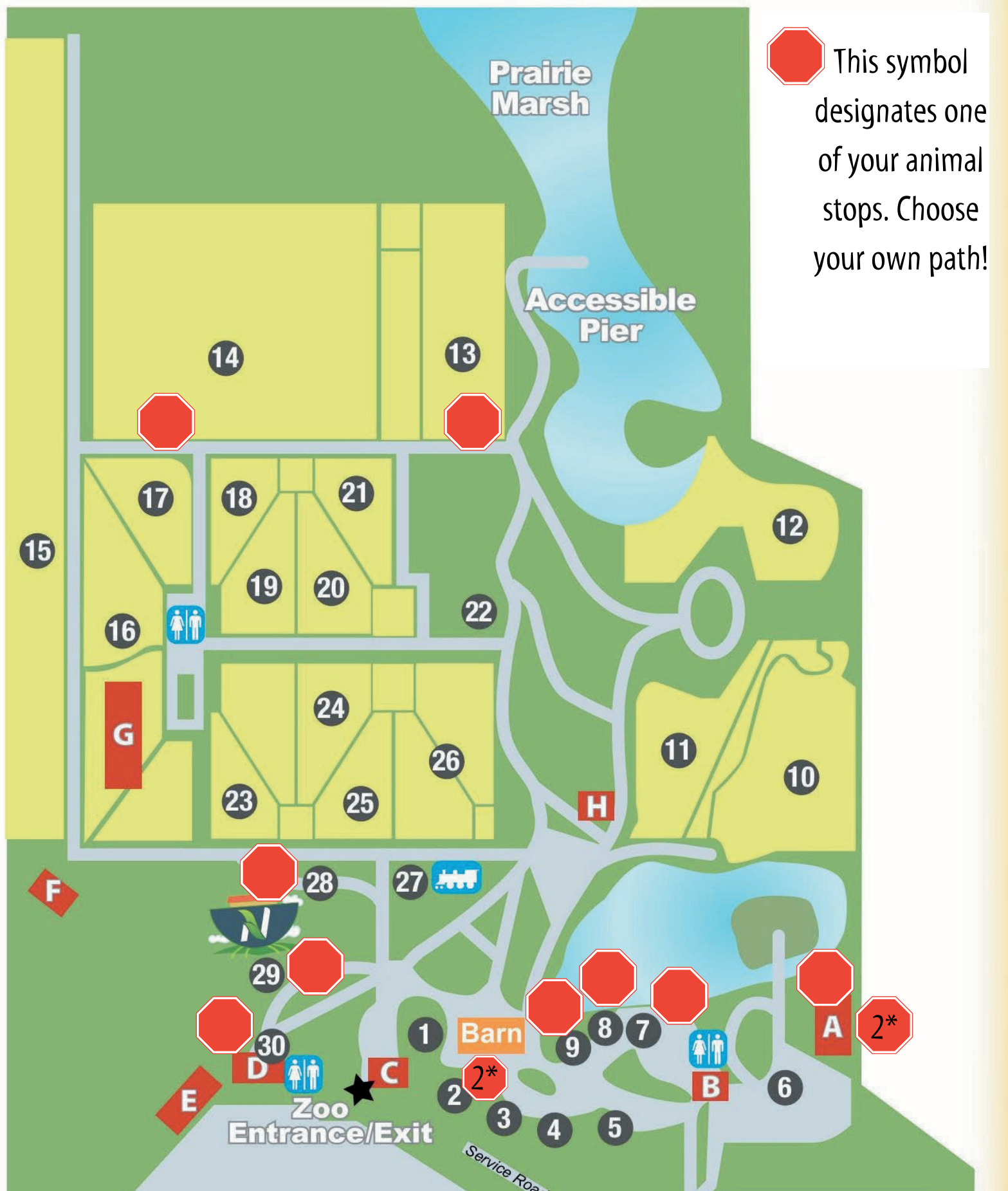
Give each group of students a mission card (there are three different ones). Each group has a leader who writes in the answers on their card (we've made multiple cards if you want to keep your groups smaller). Divide your class into the three groups and give each group a mission card ensuring each group gets a different one.

WITHIN EACH GROUP, you can hand out the same mission card if you want to keep the groups smaller. FOR EXAMPLE: divide your class into 3 groups (let's say there are 8 in each group). Group A is the Mission: Grasslands Guardians. Group A can be divided into pairs and each pair gets a Grassland Guardian card & dry erase marker. You can do this with Group B and Group C as well. If Group A prefers to just use 1 Grassland Guardian card for all 8 students, that is OK too!

First Group back with a full card wins the mission challenge. NOTE: they are NOT allowed to RUN in the Zoo, so this is a WALKING CHALLENGE.

Debrief (5 minutes): This is just for discussion. Answers not provided as they may vary.

- Which animal do you think has the most challenges to overcome?
- Is there anything that people can do to overcome some threats?
- What would you say is the main threat to species survival?
- What was the most common IUCN status for the species on your cards? Is this a good sign?



*2- Lemurs may be in or out

Species at Risk Map

MISSION: GRASSLAND GUARDIANS

ANIMAL	IUCN STATUS	PROMPT	ANSWERS
PRONGHORN		Predator or Prey?	
RING-TAILED LEMUR		Main Threat?	
BISON		Past Threat?	
ARCTIC WOLF		Habitat Type?	
SNOW LEOPARD		Where Found?	
PALLAS' CAT		Main Threat?	
POISON DART FROG		One Defense?	
BALD EAGLE		One Adaptation?	
GOELDI'S MONKEY		One Threat?	
CANADA LYNX		What dictates their survival?	

SZS-SAR

MISSION: GRASSLAND GUARDIANS

ANIMAL	IUCN STATUS	PROMPT	ANSWERS
PRONGHORN	<i>Least concern</i>	Predator or Prey?	<i>Prey</i>
RING-TAILED LEMUR	<i>Endangered</i>	Main Threat?	<i>Habitat loss & degradation</i>
BISON	<i>Near Threatened</i>	Past Threat?	<i>Strategic extermination intended to dismantle Indigenous way of life</i>
ARCTIC WOLF	<i>Least concern</i>	Habitat Type?	<i>Arctic tundra/northern forests</i>
SNOW LEOPARD	<i>Vulnerable</i>	Where Found?	<i>Central and South Asia</i>
PALLAS' CAT	<i>Least concern</i>	Main Threat?	<i>Habitat destruction & fragmentation, resource extraction, conversion to farmland</i>
POISON DART FROG	<i>Least concern</i>	One Defense?	<i>Toxic skin secretions</i>
BALD EAGLE	<i>Least concern</i>	One Adaptation?	<i>Excellent eyesight, strong beak and talons, lightweight for flight</i>
GOELDI'S MONKEY	<i>Vulnerable</i>	One Threat?	<i>Habitat destruction, logging and pollution</i>
CANADA LYNX	<i>Least concern</i>	What dictates their survival?	<i>The population of Snowshoe Hares (as this is their primary food source)</i>

SZS-SAR

MISSION: MOUNTAIN & ISLAND

ANIMAL	IUCN STATUS	PROMPT	ANSWERS
PALLAS' CAT		One Adaptation?	
SNOW LEOPARD		Main Threat?	
BALD EAGLE		Past Threat?	
RING-TAILED LEMUR		Where Found?	
ARCTIC WOLF		Habitat Type?	
PRONGHORN		One Adaptation?	
BISON		Past Threat?	
POISON DART FROG		One Defense?	
CANADA LYNX		One Adaptation?	
GOELDI'S MONKEY		One Threat?	

SZS-SAR

MISSION: MOUNTAIN & ISLAND

ANIMAL	IUCN STATUS	PROMPT	ANSWERS
PALLAS' CAT	<i>Least concern</i>	One Adaptation?	<i>Long dense fur to withstand cold; flat skull, colouration and small ears for camouflage</i>
SNOW LEOPARD	<i>Vulnerable</i>	Main Threat?	<i>Habitat loss (there are other threats, but this is the main one)</i>
BALD EAGLE	<i>Least concern</i>	Past Threat?	<i>Poisoning of their food sources</i>
RING-TAILED LEMUR	<i>Endangered</i>	Where Found?	<i>Madagascar</i>
ARCTIC WOLF	<i>Least concern</i>	Habitat Type?	<i>Arctic tundra/northern forests</i>
PRONGHORN	<i>Least concern</i>	One Adaptation?	<i>long legs, enlarged heart and extra lung capacity for speed and distance running from predators; fawns are odorless to protect from predation</i>
BISON	<i>Near Threatened</i>	Past Threat?	<i>Strategic extermination intended to dismantle Indigenous way of life</i>
POISON DART FROG	<i>Least concern</i>	One Defense?	<i>Toxic skin secretions</i>
CANADA LYNX	<i>Least concern</i>	One Adaptation?	<i>Large spreadout paws that act like snowshoes, excellent climbers</i>
GOELDI'S MONKEY	<i>Vulnerable</i>	One Threat?	<i>Habitat destruction, logging and pollution</i>

SZS-SAR

MISSION: ARCTIC PATROL

ANIMAL	IUCN STATUS	PROMPT	ANSWERS
SNOW LEOPARD		Main Threat?	
ARCTIC WOLF		Habitat Type?	
PALLAS' CAT		One Adaptation?	
BALD EAGLE		Past Threat?	
RING-TAILED LEMUR		Where Found?	
CANADA LYNX		Ongoing Threat?	
PRONGHORN		Predator or Prey?	
POISON DART FROG		One Defense?	
GOELDI'S MONKEY		One Threat?	
BISON		Past Threat?	

SZS-SAR

MISSION: ARCTIC PATROL

ANIMAL	IUCN STATUS	PROMPT	ANSWERS
SNOW LEOPARD	<i>Vulnerable</i>	Main Threat?	<i>Habitat loss (there are other threats, but this is the main one)</i>
ARCTIC WOLF	<i>Least concern</i>	Habitat Type?	<i>Arctic tundra/northern forests</i>
PALLAS' CAT	<i>Least concern</i>	One Adaptation?	<i>Long dense fur to withstand cold; flat skull, colouration and small ears for camouflage</i>
BALD EAGLE	<i>Least concern</i>	Past Threat?	<i>Poisoning of their food sources</i>
RING-TAILED LEMUR	<i>Endangered</i>	Where Found?	<i>Madagascar</i>
CANADA LYNX	<i>Least concern</i>	Ongoing Threat?	<i>Habitat destruction due to deforestation, fires, trapping and climate change</i>
PRONGHORN	<i>Least concern</i>	Predator or Prey?	<i>Prey</i>
POISON DART FROG	<i>Least concern</i>	One Defense?	<i>Toxic skin secretions</i>
GOELDI'S MONKEY	<i>Vulnerable</i>	One Threat?	<i>Habitat destruction, logging and pollution</i>
BISON	<i>Near Threatened</i>	Past Threat?	<i>Strategic extermination intended to dismantle Indigenous way of life</i>

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