

CHEETAH FUN!

K-5 Activity Guide



Cheetah's Charm

Get to know the cheetah by checking out its amazing adaptations!



It's In The Spots

Learn how to identify cheetahs and then design your own.



Cheetah Tales

Story Time—Read or watch a story about a very clever cheetah who is good at hide and seek then write your own cheetah adventure!



A Race Against Extinction

Cheetahs may be designed to run but the race they are in today requires our help to win. So get ready, get set and GO!



Cool Down & Take Action

While cooling down like a cheetah after a chase, learn all about how dogs are saving these cats and so can you!



Curriculum Connection

Have ideas to make this curriculum better? Please share them at CheetahSAFE@livingdesert.org

SEVEN WAYS TO JOIN THE RACE TO SAVE THE CHEETAH



Join us at The Living Desert or right in your classrooms every December 4th for cheetah fun facts, activities and conservation action in observance of International Cheetah Day.



Spread the word with friends and family about what you are learning. Encourage others to take action with you.



Adopt a cheetah at The Living Desert as a class and help us support the Species Survival Program by helping us to provide our coalition with the best care possible during their stay!



Help sponsor an Anatolian shepherd dog for farmers in Namibia to help reduce livestock-cheetah conflicts as a class.



Be a cheetah champion by seeking out and participating in Citizen Science opportunities.



Tell your friends and family to join the International Cheetah Day celebration annually on December 4th with you!



Take pictures of your class taking action for cheetahs this December 4th and submit them on our website to be shared on social networks highlighting how your class is a champion for conservation!



International Cheetah Day Suggested Activities K-5

Overall Goal:

Students will become more aware of how cheetahs are unique and have amazing adaptations. They will be introduced to the unique story of how cheetahs are cats but share features with dogs that help them survive.

1. Cheetah's Charm (Science + Art) (ELA)

NGSS Standard

4-LS1-1:

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

1-LS1-2:

Scientists look for patterns and order when making observations about the world.

Objective:

Students will connect with cheetahs by learning all about their cool adaptations especially those that help them run fast!

Vocabulary:

Species Canine	Adaptation	Aerodynamic
Feline	Retractable	Traction

Materials:

(3) Pictures of different felines (cats), (3) different canines (dogs), Silhouette identification activity sheet, tracks for both (can also be in pictures)

Specific: K-2nd

A coloring sheet with identified labels for cheetah adaptations/features

Specific: 3rd-5th

Activity Sheet: A coloring sheet with blank labels for cheetah adaptations/features and one that has answers listed but not on the line.

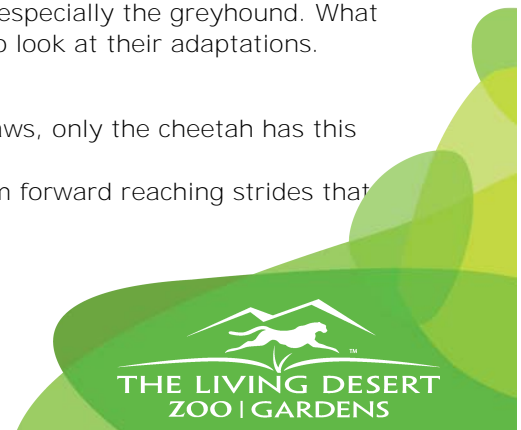
Informational Resources:

<https://internationalcheetahday.com/#getinvolved> which includes facts, pictures and videos – Some videos may include information on their prey and hunting which may be more than you want to share with young children. Please watch and glean through these resources before sharing them with your students.

Introduction:

Cheetahs are part of the feline family and share many features we see in our very own house cats. However, unlike typical felines, cheetahs also share cool features with canines (dogs), especially the greyhound. What features do cheetahs share with canines greyhounds? To find out, we need to look at their adaptations.

1. Rough paw pads – like a dog for traction
2. Semi-retractable claws for traction –(felines have fully retractable claws, only the cheetah has this semi-canine trait)
3. Flexible and muscular spine similar to a greyhound, that springs them forward reaching strides that can surpass 21 ft!
4. Long slender legs that can take high impact like a greyhound
5. Aerodynamic body structure that provides little resistance



But they also have;

6. A muscular tail that acts as a rudder to allow for sharp sudden turns
7. Tear marks on their face help reflect the glare of the sun while hunting during the day
8. Large sinuses for maximum air intake
9. Large lungs and heart to take that air in and distribute massive amounts of oxygen to the rest of the body

At first glance it is easy to identify some similarities in their body shape and structure. This is because both of these species are fast! From their claws to their spine, it is clear both cheetahs and greyhounds are made for speed. Cheetahs can reach their top speed of 70-75 MPH in 3 seconds, faster than a Lamborghini! Watch this video of a cheetah running and learn all about how they spend most of their time completely in the air while running at these remarkable speeds! <https://www.youtube.com/watch?v=icFMTB0Pi0g>

Procedure:

1. Show pictures of cats to students and talk about how they look, then repeat with pictures of dogs. Ask students to point out the differences. (you can use stuffed animals with little ones too)
2. Then take a look at the silhouette shape without the head, full tail, or color showing and ask kids whether they think this mystery animal is a cat or a dog.
3. Then show them who it is with a full picture and talk about how cheetahs are cats, they look like them but share many similarities with dogs – namely the greyhound. Use visual aids to show similarities between cheetah and the greyhound. Tell them that cheetahs and greyhounds are made for speed that is why they share these similar qualities.
4. Have k-2nd kids color their cheetah handout and the 3rd-5th color and label their adaptations/features.
5. Go around and help them be sure to label correctly.
6. After with the K-2 teach them the "Paws and Claws" song. This is to the tune of "Head and shoulders, knees and toes"

Paws and Claws song:

(To the tune of "Head and Shoulders, Knees and Toes")

Paws and claws and a flexible spine, flexible spine

Paws and claws and a flexible spine, flexible spine

Slender legs and big lungs just to breath

Cheetahs are made just for speed, just for speed!

Closure – Please take pictures - Send the picture/s to CheetahSAFE@livingdesert.org

Discuss how cheetahs are felines that are perfectly designed to run very fast and that many of the characteristics that make them so fast are shared with their canine counterpart, namely the greyhound.

Evaluation:

(Informal evaluation) Ask students if they wanted to run faster, which adaptation do they think would be best and why.

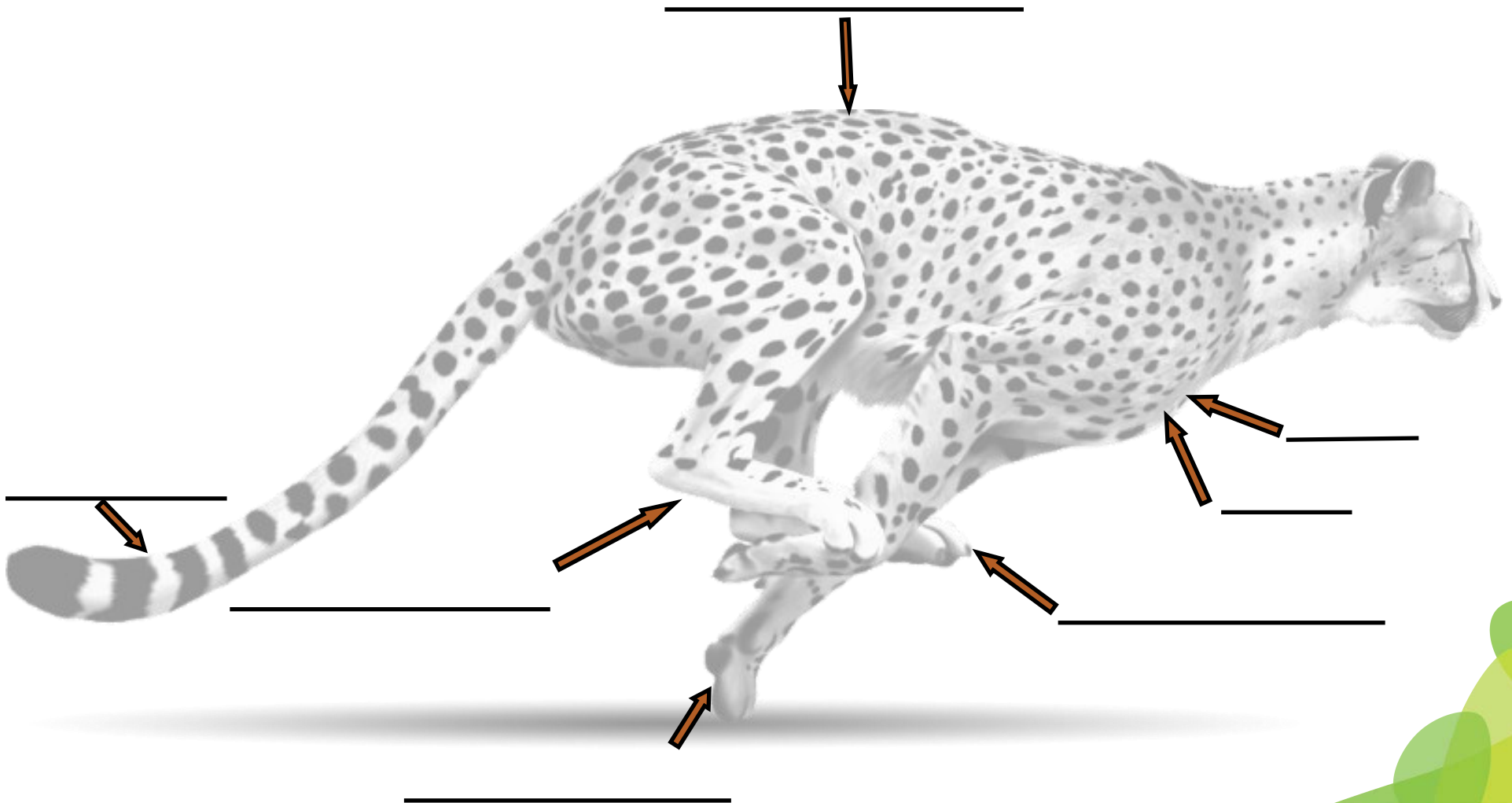
Specific: 3rd-5th

Have the students draw themselves with this adaptation. This will tell you how engaged they are and how much they understood.

Extension Option:

Ask students why they think the cheetah needs these adaptations, why would they need to run so fast? Talk about how we adapt to survive just like the cheetah. Have the students work together to identify ways in which we also adapt like wearing a heavy coat in the winter.

CHEETAH ADAPTATIONS



CHEETAH ADAPTATIONS

Flexible Spine



Muscular Tail



Strong-Slender Legs



Lungs

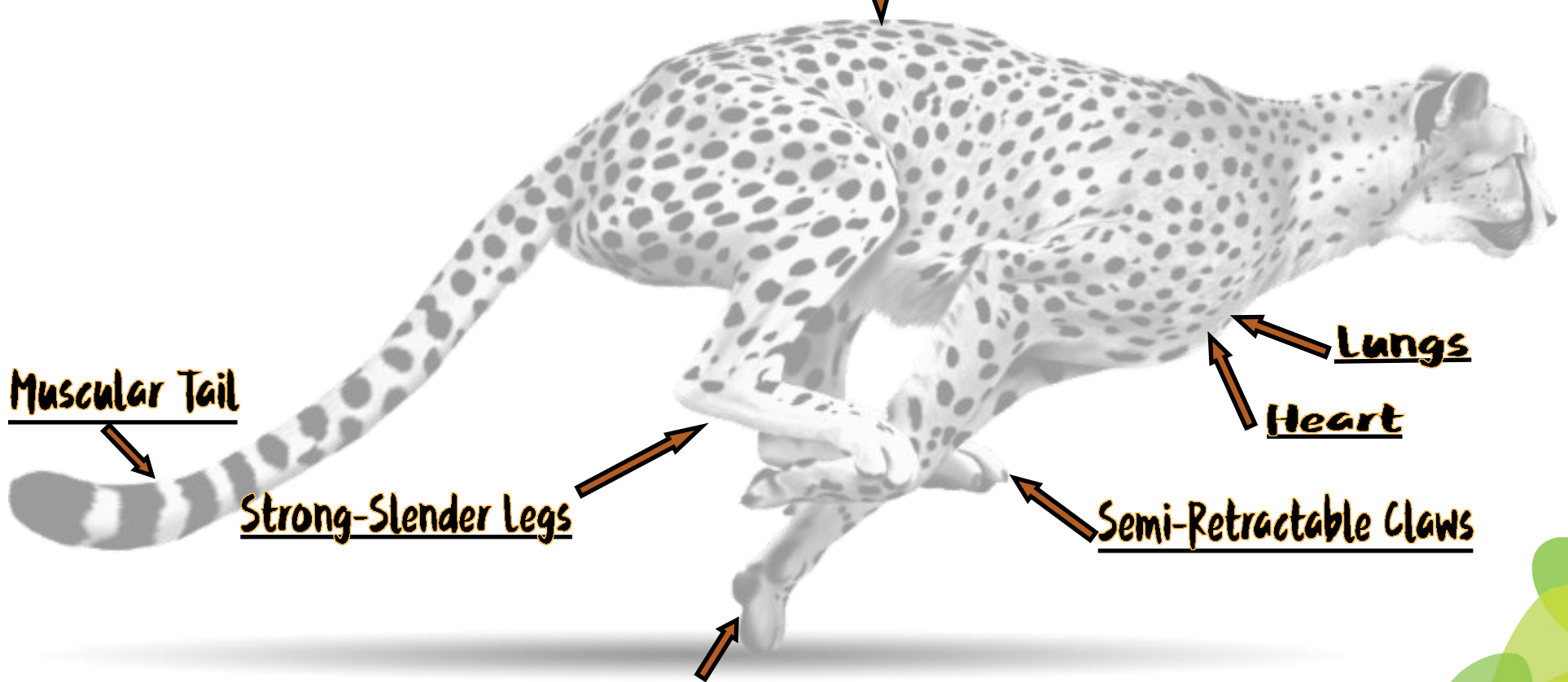


Heart

Semi-Retractable Claws



Rough Paw Pads



CHEETAH ADAPTATIONS

Flexible Spine

Muscular Tail

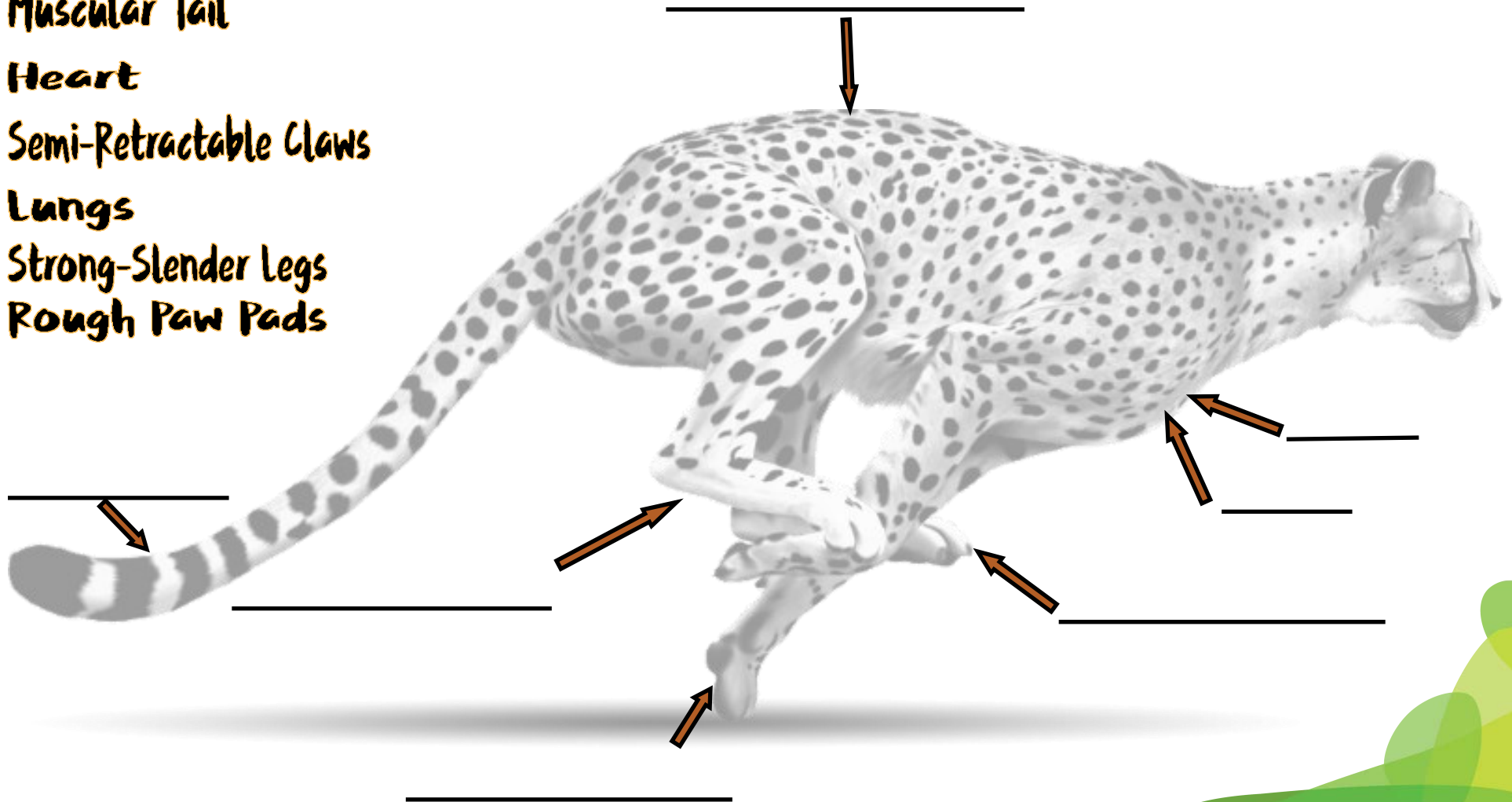
Heart

Semi-Retractable Claws

Lungs

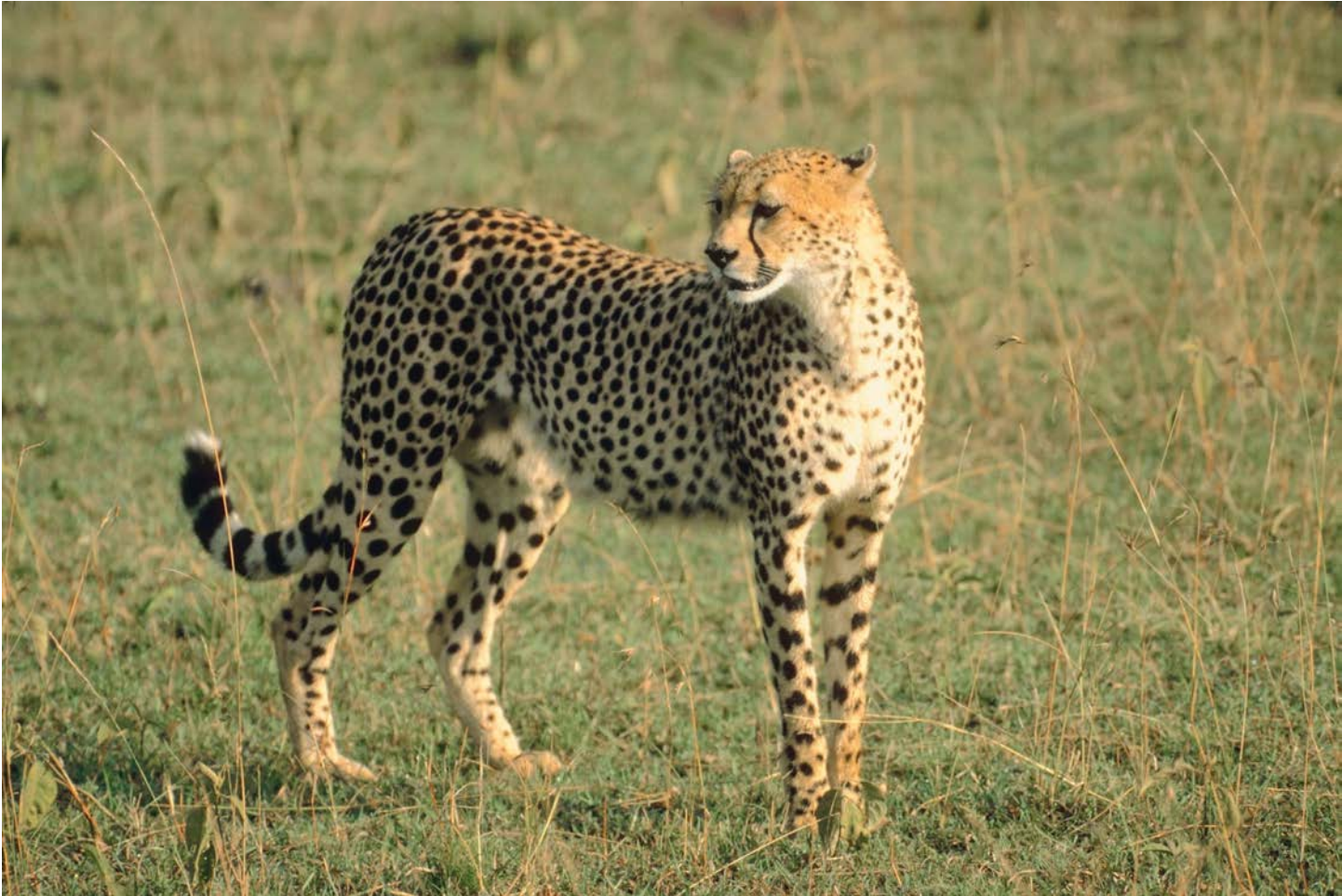
Strong-Slender Legs

Rough Paw Pads





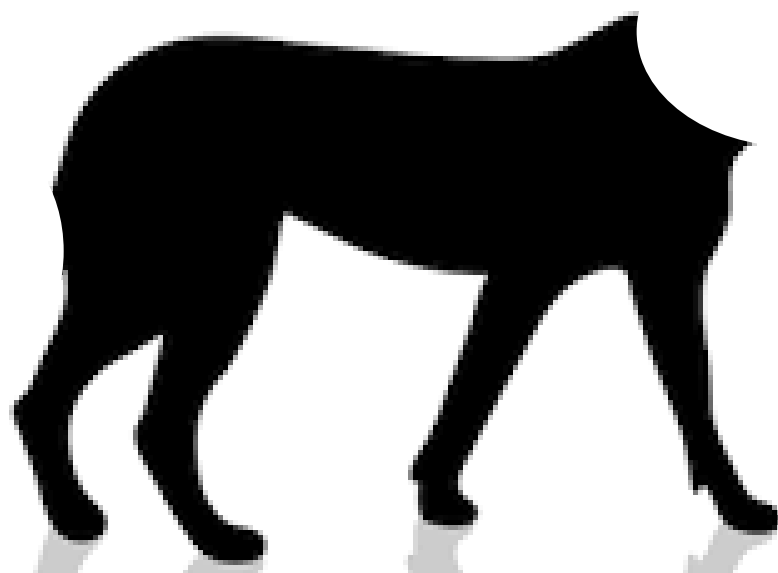
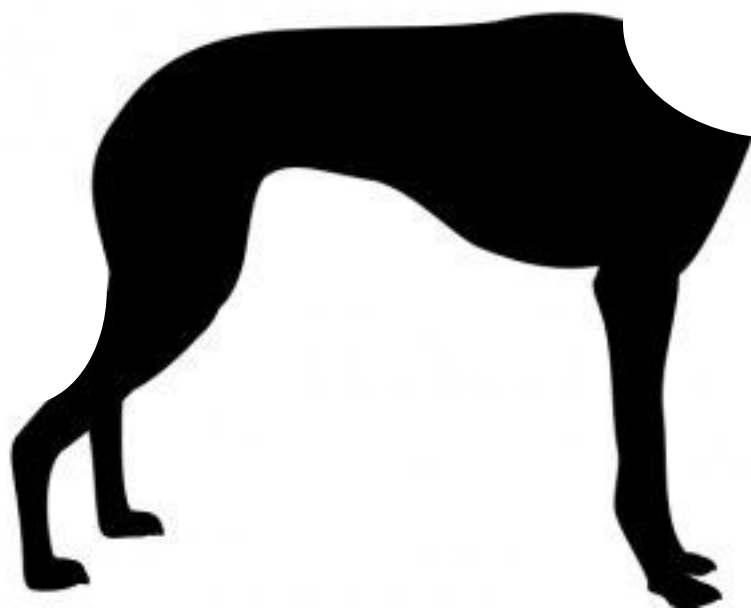


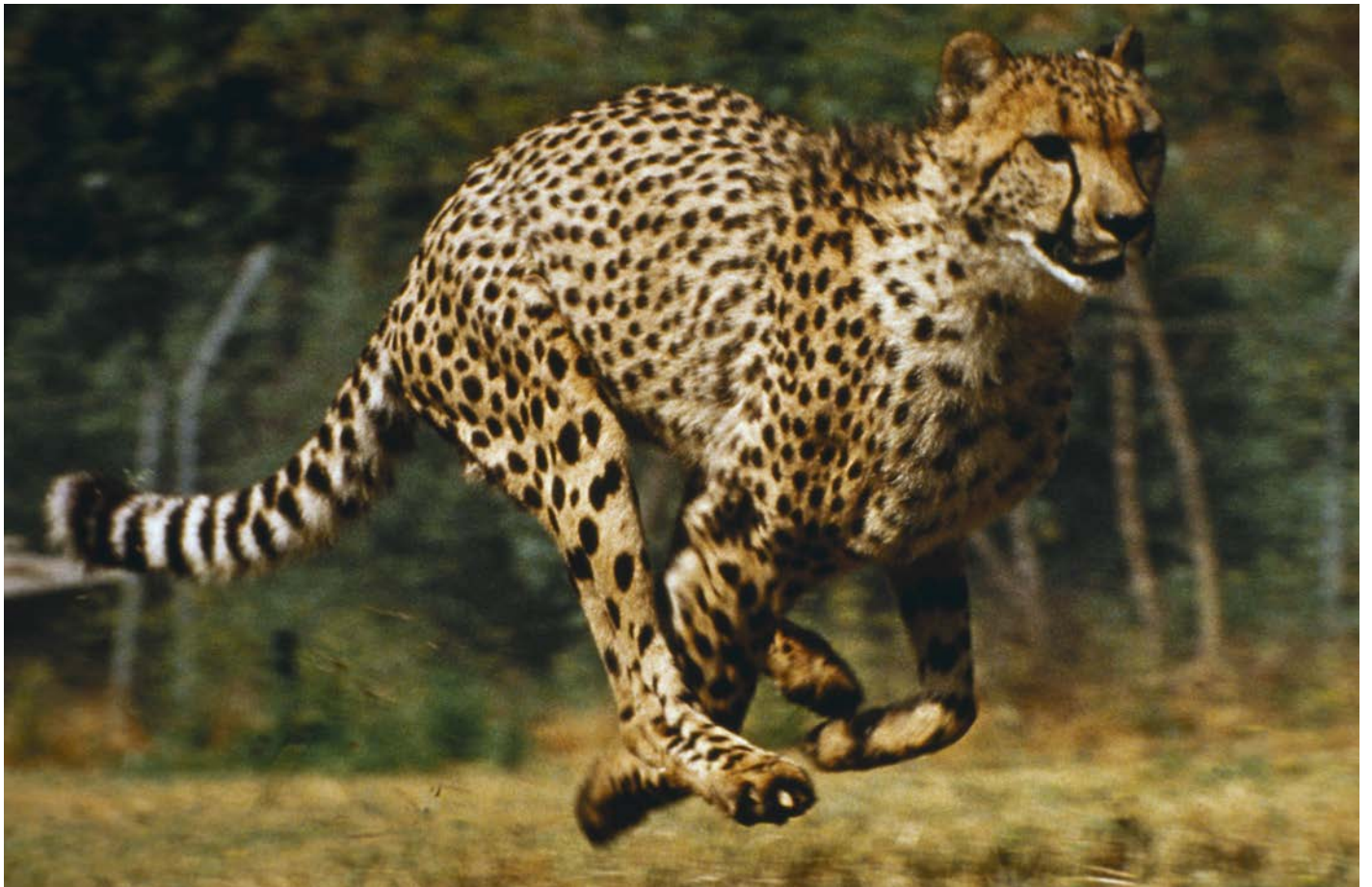














Cat Print—No Nails because cats have retractable nails unlike dogs. The Cheetah is more like a dog in this respect and their paw prints will include nail marks.





Dog Print—Notice the Nail marks because dogs have non-retractable nails that provide extra traction. The Cheetah is more like a dog in this respect and their paw prints will include nail marks like these.



2. It's In The Spots (Science + Art)

NGSS Standard:

4-LS1-1:

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

1-LS1-2:

Scientists look for patterns and order when making observations about the world.

Objective:

Students will develop/enhance observation skills through species identification and application of learned concepts through art.

Vocabulary:

Camouflage Rosette Compare Contrast Variety

Materials:

(1) picture of cheetah, (1) picture of cheetah coat only w/tally box, (1) picture of a leopard, (1) picture of a leopard pelt only w/tally box, (1) picture of a jaguar, (1) picture of a jaguar pelt only w/tally box, (1) tester picture with sample pelts side by side but not labelled;

Specific: K-2nd

Class pack of paper bags (lunch size) lines pre-drawn for legs and feet (K-2nd), class pack of cheetah heads for coloring, markers or crayons for decorating, (1) sample completed cheetah

Specific: 3rd-5th

Class set of canvas or canvas paper (construction paper will do), markers or paint for project.

Informational Resources:

Video: https://www.youtube.com/watch?v=1mNSoR_bVSk – Also an excellent conclusion and evaluation tool.

Introduction:

Felines come in many different shapes and colors. How can you identify if what you are looking at is a cheetah? It is in their markings!

Cheetahs, leopards and jaguars are often mis-identified. Cheetahs are the easiest to identify they have spots and tear stains. Jaguars and Leopards share what is called a Rosette but they have one specific difference. Jaguar's rosettes have one or more spots within their rosettes. Each is a unique way to camouflage in their natural habitats.

Cheetah: Savannas, open woodlands and semi-desert areas.

Jaguar: Boreal forests, grasslands, mountainous areas

Leopard: Forest, swamps, grasslands and mountainous areas.

By looking at the coats next to each other the differences are easy to identify and will increase your awareness of the variations within nature for survival.

Procedure:



1. Post pictures of the feline pelts with tally boxes around the room and hand out colored markers. Ask the students to walk around and put a tally under the species name they think belongs to the picture. No identifying words should be posted.
2. After every child participates have them gather around in a story circle. Hold up the picture with the three different pelts and have a discussion with the students on the coats of each species and how important their specific design is to them, tell them which is which and how they can tell by using the reveal pictures with the full animal and their name.

Closure: Please take pictures - Send the picture/s to CheetahSAFE@livingdesert.org

Time to get crafty!

Specific: K-2nd

Give them each a pre-cut cheetah head and markers for coloring. Then give them the paper bag and encourage them to create their own cheetah by looking at the sample one. Remind them cheetahs only have spots.

Specific: 3rd-5th

Give the students each their canvas and art supplies. Using the picture of the cheetah, encourage them to make their own off of what they have learned today.

Evaluation:

After the discussion, ask students to tell you which is which by pointing to one and saying who thinks this is a cheetah? Put your hand on your head? Who thinks this is a leopard? Put your hand on your shoulder. Who thinks this is a jaguar? Put your finger on your nose. Then tell them who is right. This is a way to quantify how many of them are with you in the content and observation.

Extension option:

Use pictures of camouflaged animals and play a game of find the animal to bring home the point – ISPY books are great for this. You could also use the video in resources as an extension.



It's In The Spots!



Who Am I?

Place a tally in the box that corresponds with the feline species you think I am

Cheetah	Jaguar	Leopard

SAFE
SAVING ANIMALS
FROM EXTINCTION
CHEETAH




THE LIVING DESERT
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It's In The Spots!



Who Am I?

Place a tally in the box that corresponds with the feline species you think I am

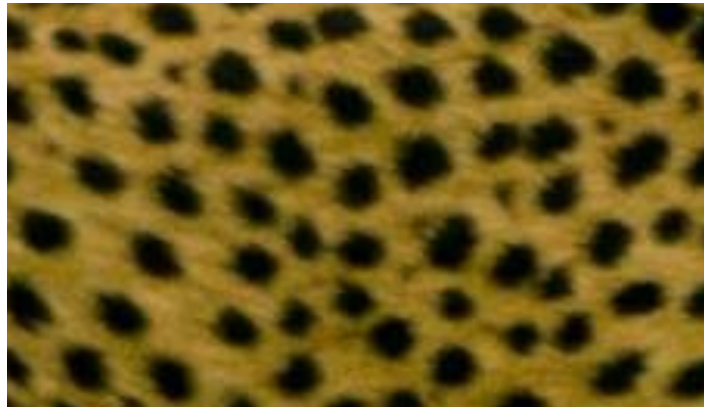
Cheetah	Jaguar	Leopard

SAFE
SAVING ANIMALS
FROM EXTINCTION
.....
CHEETAH




THE LIVING DESERT
ZOO | GARDENS

It's In The Spots!



Who Am I?

Place a tally in the box that corresponds with the feline species you think I am

Cheetah	Jaguar	Leopard



Cheetah



I am a cheetah. Unlike jaguars and leopards I am covered in spots and not rosettes.

SAFE
SAVING ANIMALS
FROM EXTINCTION
CHEETAH



Leopard



I am a leopard. I have rosettes, they look like circles with darker tan color on the inside. Jaguars also have rosettes but mine do not have any spots in them.

SAFE
SAVING ANIMALS
FROM EXTINCTION
CHEETAH



Jaguar!



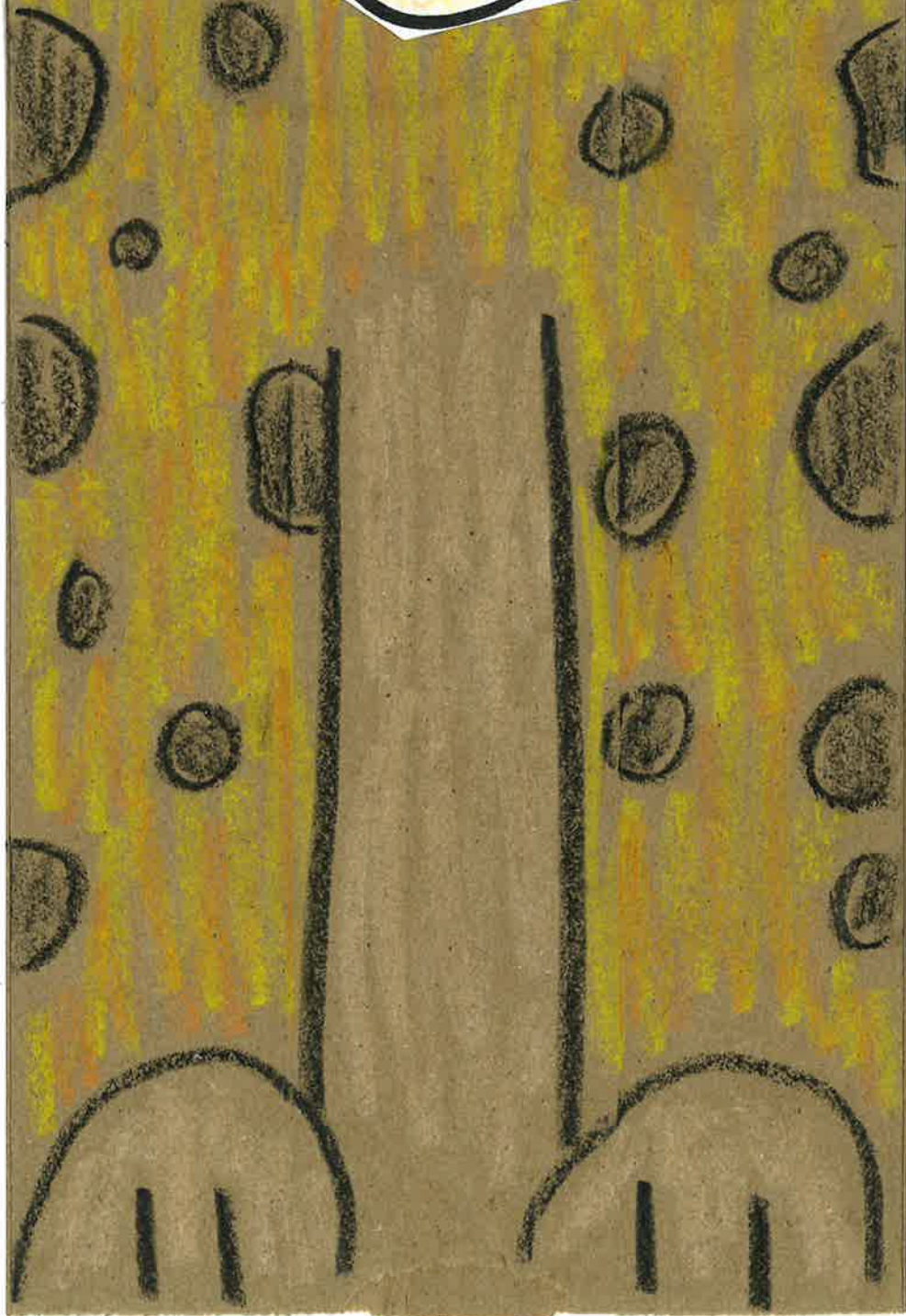
I am a Jaguar. I have rosettes, they look like circles with darker tan color on the inside. Leopards also have rosettes but mine have spots in them.

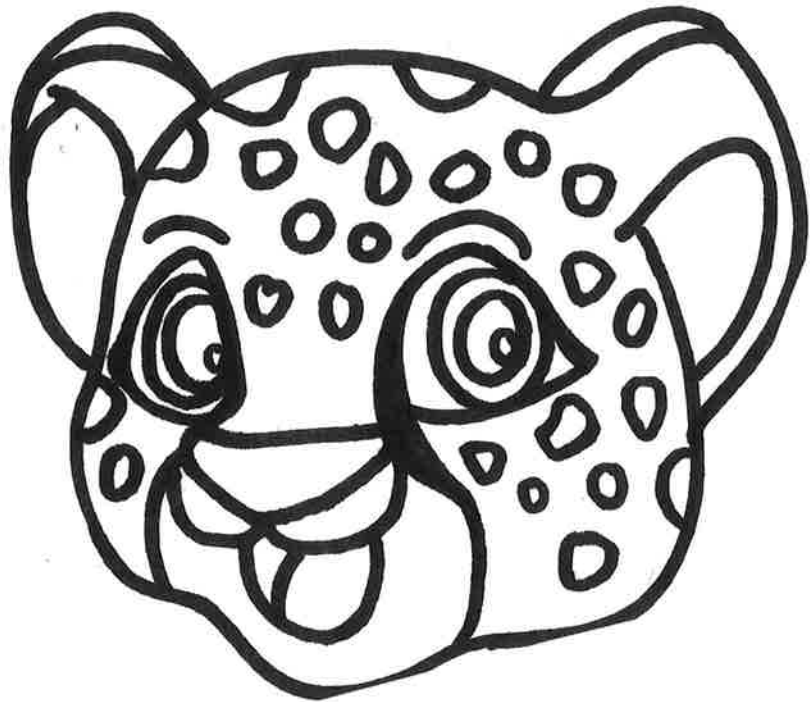
SAFE
SAVING ANIMALS
FROM EXTINCTION
CHEETAH



Who Am I?







3. Cheetah Tales (Science) (ELA)

NGSS Standard:

4-LS1-1:

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Objective: Students will create connections between the characters of the story and themselves while identifying key details in the text and the connections to cheetahs.

Vocabulary:

Carnivore	Predator	Camouflage	Habitat
Exhausted	Prey	Environment	Markings

Materials:

The story, *Freeda the Cheetah*

Handout with cheetah and story box

(1) for K-2 class activity (Color or no color option)

(1) for 3-5 Individual activity (color or no color option)

Informational Resources:

[Freeda the Cheetah](#) – Video version of the book (2:19)

[Freeda the Cheetah](#) – Free Kindle Download of the actual book

Introduction:

This story is about animals playing hide and go seek and how the cheetah is the best because of its markings and speed.

This is a fun story that kids connect to because they play this game themselves.

Procedure:

1. Read or watch the story with the students while asking them engaging questions at specific spots in the story. Try and get them involved, like hiding their heads, or putting their arms up and imagining they are looking around bushes and playing too. The more kinesthetic the better. Possible leading questions below:
 - a. What colors do they see?
 - b. Have you ever played hide and go seek?
 - c. Are you good a good hider?
 - d. What does Freeda look like?
 - e. Do you think the elephant will find Freeda?
 - f. Why not? Why yes?
 - g. Where would you look?
 - h. What animals do they see coming to help the elephant look for Freeda?
 - i. The sun is going down! Would you keep looking for Freeda?
 - j. Did you see Freeda?
 - k. How did Freeda hide so well?
2. After the story is over ask the kids why a cheetah might need to sneak around in the wild? Talk about how cheetahs are carnivores (meat-eaters), and how they have to catch their food. Cheetahs can run very fast but not for a long time because they will over heat and their body becomes exhausted (tired) so they have to sneak up on their prey before they can start running. That is why they need to have spots that break up their coats and make them camouflage. This helps them get really close to their prey without being noticed.

3. What do you think would happen if a cheetah was moved out of its natural habitat and put into one that was a completely different color? Would they catch food easy? Why or why not?
4. Take a picture of the cheetah and put it up against a snowy background and ask the students if it is easy to see the cheetah or not? Why do they think that is? If Freeda was to play hide and seek here, would she be easier to find? Do you think she would survive long in this new environment?

Closure: Please take pictures - Send the picture/s to CheetahSAFE@livingdesert.org

Specific: K-2nd

Come together and write a story as a group about a cheetah adventure of their very own while coloring their cheetah pictures.

Specific: 3rd-5th

Have each individual student use the handout to color a habitat around their cheetah and write a story about their cheetah using what they have learned so far, such as her adaptations for speed. Post the stories when finished around the room for them to read each other's.

Evaluation: Ask the students to share one way that Freeda was good and hide and seek and how they think they can use this new information to help them play hide and seek better.

Extension Option: Have the students put on varied colored shirts and play hide and seek. The finder will be called a predator and the hiders are all prey. At the end of each round ask the finder what helped them find their prey? Tell the prey, to not be found, try to camouflage, look for hiding spots that match your colored shirts!

Extension NGSS Standard: **K-ESS3-1**

Use a model to represent relationships in the natural world.



CHEETAH'S

Tales



Name: _____

Teacher: _____

Grade: _____

Room # _____

Story Title: _____

CHEETAH'S

Tales



Name: _____

Teacher: _____

Grade: _____

Room # _____

Story Title: _____

4. A Race Against Extinction (Science + Math) (PE)

NGSS Standard:

4-LS1-1:

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

3-LS4-4

Populations live in a variety of habitats, and change in those habitats affects the organisms living there.

Objective:

Students will learn about the struggles facing the cheetah and about how they need us to take action.

They will also compare themselves to the cheetah through physical activity and a group race.

Vocabulary:

Endangered	Extinct	Threatened	Vulnerable
Habitat	Poaching	Genetic	Traditional

Materials:

Both:

Space for a race or obstacle course

Paint or Markers and banner paper for closure activity

Specific: 3rd-5th

1 large rope, 1 short rope, 25 - 5 ft string or yarn pieces, 8 small hooks with the eye, 3 – 4 small carpet squares, 1 small bucket, water, 8 chairs

Informational Resources:

<http://cheetah.org/about-the-cheetah/race-for-survival/>

Procedure:

Specific: K-2nd

1. Explain to the students that the Cheetah is built for speed and share with them the importance of their spine and how it flexes. Watch the cheetah slow motion video.
2. Go outside and follow the pre-race stretching exercise handout and teach the kids to do the stretches.
3. Tell the students that the cheetah reach it's top speed of 70 miles per hour in 3 seconds! That is as fast as a car on the freeway!
4. Let's see how fast the kids are, take a stop watch and time the students sprinting and chart their speed at the 3 second mark in the handout provided.
5. After tell the students that cheetahs are running a race against extinction. Explain that extinction is like the dinosaurs, they won't be coming back.
6. Then follow-up by telling them that we have exciting news because when we all work together we make amazing things happen. With small actions we can all help to save the cheetahs from extinction! What can each of your students do? They can tell everyone they talk to about cheetahs and how they need us to speak up for them.

Specific: 3rd-5th [See obstacle course layout example after vocabulary section](#)

1. Before the students come to class, set up the obstacle course outside using rope or string.
 - a. The obstacle course should be simple and safe but include one sharp turn followed by small mats that represent fractured habitat surrounded by 4 chairs that show the limit of where the students can pass (it is supposed to feel cramped), places the cheetah cannot go and a spot of significant zig zag.



- b. Take a small bucket and fill it $\frac{3}{4}$ full.
 - c. Take 8 pieces of string equal in length about 5 feet each and tie small hooks on the end that will be placed on the bucket rim. And place at the beginning of the course.
 - d. Take the smaller piece of rope (or string) and tie yarn to it dangling down about 5 ft so when held up it looks like a pouring rain they have to walk through.
 - e. Place 2 chairs for blockage across the path in the final stretch of the course along with the rope pre-set up to look like pouring rain – this is poaching pass.
2. When you start the activity: On a chalk or white board put the number >10,000 and explain that > means more than.
3. Ask students how many cheetah's they think there are in the wild >10,000 or <10,000. Then ask them their individual guesses as to how many there are.
4. Write their guesses around the >10,000 you already wrote and if one of them said less than >7000, circle this number. If not, write it. Then introduce them to the vocabulary and concepts of Endangered Species categories and Criteria (briefly).
5. After explaining that an endangered species is one that has a small population and is struggling to survive, tell them that the cheetah is one such species. Ask them why they think the cheetah may be struggling. Then explain to them that there are many reasons and that we, as a species, play a big part in it.
 - a. Habitat loss – As our population grows there is less and less area for species like the cheetah to live.
 - b. Conflicts with Ranchers – Cheetahs have been blamed for many of the livestock losses in their native ranges. Ranchers need their livestock so they are protecting themselves and their livelihood by killing the cheetahs.
 - c. Poaching – People use the cheetah for many reasons including to sell as pets, for their beautiful coats, food and their organs in traditional medicinal practices.
6. Tell them that the cheetah is facing other things like disease and genetic breakdown as well. The good news is that we are becoming aware of these issues and we are making changes. It is impossible to make changes to help something if you have no idea it is happening and that is why sharing the message is so powerful.
7. Take the kids outside and put them in groups of 8. Explain that the water in the bucket is the remaining cheetahs and that each rope represents needs and wants of humans. The challenge is to work together to lose as little water as possible while working through the challenges that face the cheetah.
8. As they begin their walk they will hit a sharp turn to the right. This is habitat loss and the cheetah will immediately be required to adjust to stay within the spaces that are left for it as the path becomes narrow. Each holding the rope must follow this path, it will not be easy.
9. As they pass this, there will likely be loss of cheetahs, talk about this with the students as they continue on. They will next hit a zig zag, this is conflict with ranchers. The cheetah will need to "Dodge bullets" weaving in and out to keep clear of the danger.
10. After passing this section the cheetah will have to pass through an area of high poaching, poaching pass. On the other side the path should end after a little straight path.
11. Repeat through your groups of 8. When all groups are done explain that there are many organizations working to save the cheetah and the 8 hands carrying the bucket represent them. However, more hands are needed. There are easy ways for each of us to get involved and one we will do today, that is sharing the message.

Closure:

Take the long banner paper and have the kids do an art project that they will hold up that says something like, #savethecheetah!

Then find a nice place and take a group picture of the kids holding the banner and tell them their picture is going to be sent to The Living Desert to be shared on Social Networks to get the word out that kids like you are getting loud for cheetah conservation!

Send the picture/s to CheetahSAFE@livingdesert.org

Evaluation:

Specific: K-2nd

Ask the students if the dinosaur is extinct. If yes, put hand on head if no, put hand on their stomach.

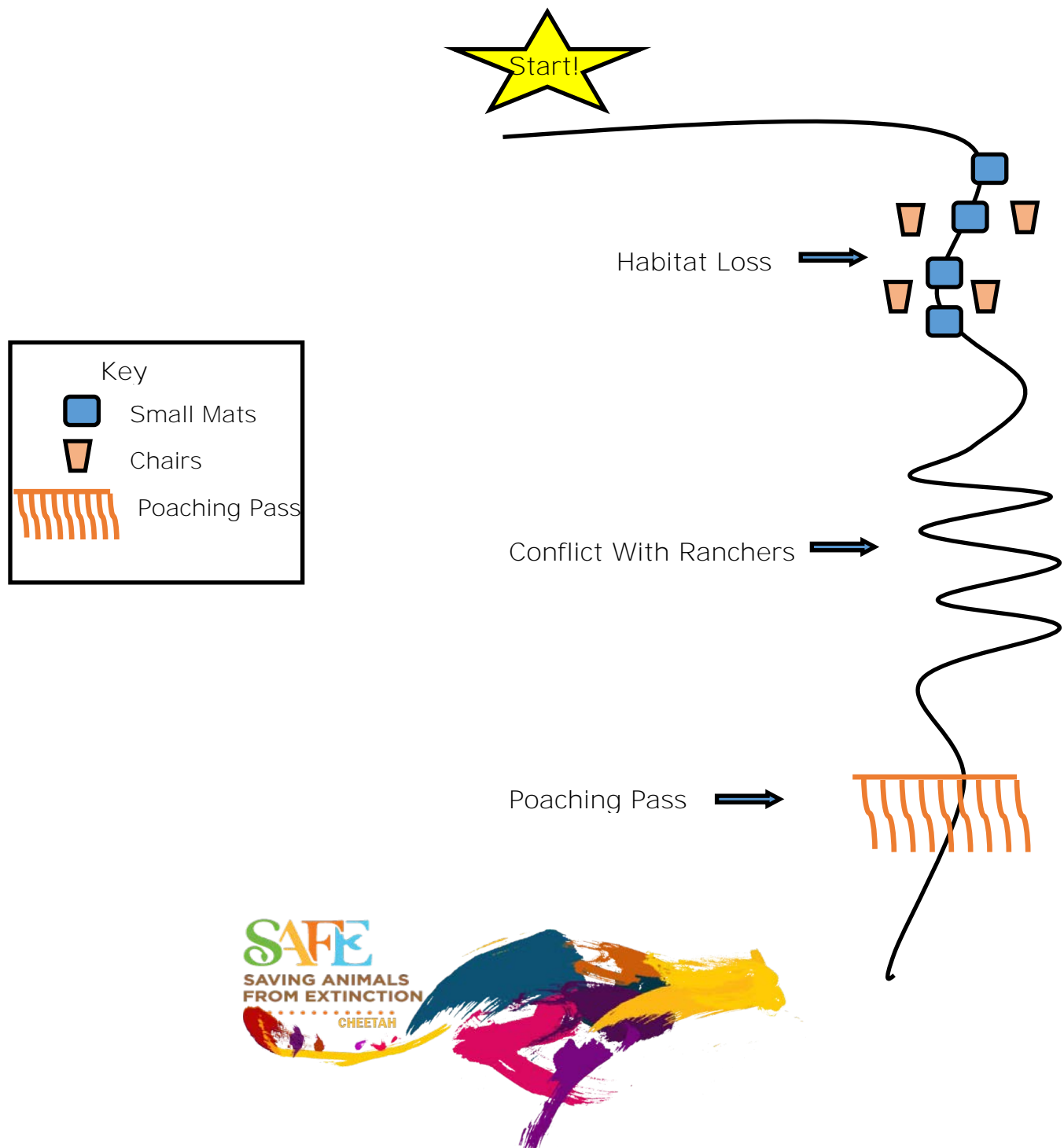
Ask the students the same question but about the cheetah. Each time, have a discussion about it and talk about 1 main difference between the cheetah and the dinosaur is us. We did not cause the dinosaurs situation and we were not there to save them but we are part of the cheetahs and we are here to make a difference.

Specific: 3rd-5th

Back at the obstacle course, take the students to each specific struggle and ask them what that "hurdle" or "obstacle" represented. Ask them what ideas they have on how to help cheetahs to get through this challenge in their natural habitat.

Extension option:

Share the Internationalcheetahday.org website that highlights many of the ways we are working to save the cheetahs today. Have a group discussion on the idea's the students came up with earlier and see what the students come up with. We would love to hear about those ideas – Share them at CheetahSAFE@livingdesert.org



5. — Cool Down and Take Action (Science + Art) (ELA)

NGSS Standard:

4-LS1-1:

Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

K-ESS3-1

Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.

Objective:

Students will learn about some creative ways people/organizations around the world are working to save the cheetahs from extinction. They will be introduced to the concept that the natural instincts of specific species have unique benefits for the coexistence and sustainability of multiple species including humans. By looking at the natural instincts, adaptations and behaviors of wildlife and domestic animals we can find uncommon solutions to common problems.

Vocabulary:

Scat Livestock Coexist Conservation Deterrence

Materials:

Video 1 – Anatolian Shepherd Dogs (Protection and Deterrence):

<https://www.youtube.com/watch?v=tnqiBEb9imw>

Video 2 – Scat Sniffing Dogs (Identification and Research):

<https://www.youtube.com/watch?v=yYw7UK6cX8E>

Article: <https://ensia.com/features/conservation-dogs/>

Activity sheets:

Specific: K-2nd

Cool Down and Take Action Art Page

Specific: 3rd-5th

Cool Down and Take Action ELA page

Informational Resources:

See the same above resources

Introduction:

Cheetahs used to roam all over Africa and even into Asia but today due to habitat loss and fragmentation, they only live in 10% of their once expansive habitat. How would you find out where the cheetahs are living in the wild today? The answer is in their poop!

Organizations like CCF and Cheetah Conservation Botswana use scat sniffing dogs to find cheetah poop to help collect important data on: where individual cheetahs are moving, how they are using their habitat, how many cheetahs are there and how much space cheetahs are using. Knowing this information will help inform where conservation biologist do their work and save critical habitat space.

Another important role that dogs play in the conservation of cheetahs has to do with their relationship with farmers. In the first video in the materials section you will hear from Dr. Laurie Marker about the out of the box solution that involves dogs, to save these cats. In Namibia cheetahs have been long blamed for livestock loss, the very livelihood of many of the people in coexisting with the cheetah. The solution came in "man's best friend", the Anatolian Shepherd dog armed with their size, protective instinct and trainability.

These sheep dogs protect the livestock without attacking the cheetah, it is a win-win for conservation. Learn more in the video and article above.

Procedure:

1. Have the students cool down from their race by watching one or both of the videos listed in the materials section. For a more literary approach there is also an article listed that can be used for reading and discussion.
2. After the videos and a brief discussion, have the students work on their activity pages.

Closure: Please take pictures - [Send the picture/s to CheetahSAFE@livingdesert.org](mailto:CheetahSAFE@livingdesert.org)

After their done with their activity pages get in a circle and have the children share with each other their favorite part of what they learned. You can start by getting them excited by saying something like, how cool is it that dogs are saving cats!

Evaluation:

Direct observation of the students during both their activity page activity and the follow up discussion will tell you if they are understanding the concepts shared.

Extension option:

Have the students do the "Scat Sniffing Dog" activity from 6-8 section. It is easy and fun.



Cool Down & Take Action Dogs for Cheetahs?



Name: _____

Take notes below on how dogs are being used to help save cheetahs from extinction.

Which way is your favorite? _____

What other ways do you think dogs can be used in conservation?



Cool Down & Take Action Dogs for Cheetahs?



Name: _____

Draw pictures below show how dogs are helping
cheetahs!

