z 7B Script Draft

‘Directions: Write a 100-200 word draft of what you will say during the exhibition.

INTRO: Lucia-Hello and welcome to our exhibition! This exhibition will take you on the adventure of a lifetime south to north from the Southwest United States to northern Canada. Our exhibition details the ecology of 8 ecoregions in a south to north line. The definition of an ecoregion is a major ecosystem defined by distinctive geography and receiving uniform solar radiation and moisture. We used many different websites and theories like Merriam's life zones to determine where our ecoregion stood geographically and biologically. What you are looking at is a crankable theater called a crankie, which we shall use to present the ecology of North America. Over the past few months we created the digital art of the geography and biology of our ecoregions. Over the course of this 45 mins you will see different habitats ranging from deserts to tundra.
Extension

Sonoran Desert

Ansley-

Plants:

- Grasslands filled with shrubs, trees, grass, and succulents.
- Leaves, flowers, stem, and fruit are edible on the prickly pear.
- Prickly pear gives food, shelter, and habitat to wildlife.

Animals:

- Elk eat grass, tree leaves, twigs, and shrubs.
- Threats to elk such as coyotes, wolves, and bobcats.
- Important ecologically and direct role on vegetation through herbivory.

Other details:

- Average temp in summer is 104 and high is 118.

Alyssa- Coniferous forest occurs in the higher mountain ranges to the north and east of the Sonoran Desert. This Rocky Mountain montane forest is the dominant vegetation of the cold temperate Rocky Mountains. Its elevation increases southward. The mountains west of the Sonoran Desert are isolated islands of Sierran coniferous forest, characterized by different species of conifers and other plants than the desert valleys. One of the animals in this desert is the desert box turtle. It is omnivorous and will eat both plants and insects. On average, they can live to between 30 and 40 years old. A desert box turtle prefers arid areas with loose soil for digging burrows. The desert valleys are a perfect habitat for these turtles. One of the many different plants in the Sonoran desert is the Barrel cactus. This cactus is easily distinguished by its rounded, accordion-like body; older barrels grow up to 10 feet high. The Barrel Cactus plays a vital role in desert ecosystems, providing food, shelter, and protection for various wildlife species

Gillian- The temperate deciduous forest in the Sonoran desert has scattered aspen groves and ribbons of riparian trees on foothills and lower mountain slopes. The Sonoran desert is home to many plant species including the saguaro cactus. The saguaro is an icon of the Sonoran Desert. This impressive plant is the largest cactus in the United States, growing to 50 feet tall. Though they're about 30 inches across, their root systems can grow as wide as 100 feet. These cacti can live up to 200 years. Across the landscape, saguaros are a very dominant and well known feature of their habitats.

The Sonoran Desert is also home to a wide variety of animals. Mammals include smaller animals like the fox, skunk, cottontail, and jackrabbit. Large animals include the javelina, coyote, Mexican Wolf, bighorn sheep, and bobcat. The bobcat's main food choice is rabbits and hares but they will also eat lizards, birds, rodents, snakes, and carrion. On occasion, they are known to kill deer. Mountain lions, coyotes, foxes, and owls prey on bobcats and many other creatures in the desert.

Brock- The mountains of the Sonoran Desert provide a bridge between the Rockies and the Mexican Sierra Madre Mountain Ranges. These mountains vary from barren rock to richly biodiverse habitats. The rugged Mexican Sierra Madre Mountains sit at the eastern edge of the Sonoran Desert in southeastern Arizona. One of the many animals that live in this mountain range are Mexican gray wolves (*Canis lupus)*. Wolves play an important role in any ecosystem by helping to stabilize herbivore populations. Wolves will hunt big game animals every few days. The biodiversity of the Sonoran desert is impressive. There are 60 species of mammals. 350 bird, around 20 amphibians and some 100 reptiles. There are surprisingly 30 species of native fish! And more than 2,000 plant species. Now onto the Mojave desert.

Mojave

Colby-Climate Colby-Climate Climate zones are located on every inch of the world but not a single one of them are the same. The diversity between each climate zone is important to define it.

- The Mojave desert has only two climate zones For example, a dry climate is especially unique to the Mojave desert because there isn't much rainfall and it usually is covered in sand. It extends from 30°-50° latitude mainly on the eastern and western borders of most continents.

- Secondly The climate of the Mojave Desert, like the Chihuahuan Desert, is hot in summer and cool in winter, a warm-temperate climate as opposed to the subtropical climate of the Sonoran Desert or the cold-temperate climate of the Great Basin.

Luke-The Mojave desert has extraordinary habitats and geographical formations.There are many mountains and a lot of valleys and dunes.Two of the valleys are the salton sea and death valley There are a lot of cool places and things. The Mojave desert's Salton Sea is a captured basin that contains the saltiest body of water in North America. It formed periodically by filling from the Colorado River. People used it for agricultural water but after the Colorado River water was diverted the salt in the Salton Sea became so concentrated that everything that was living there died. This sea can turn dark blue or bright orange depending on the water chemistry. Another important spot in the Mojave is Death Valley. It is in the middle of the mojave and broke the record for the highest temperature ever in July of 1913 in furnace creek death valley with an astounding temperature of 134 degrees fahrenheit or 56 degrees celsius.

Henri-Animals-
The mojave desert covers parts of California, Nevada, Arizona and a tiny bit of Utah.There are 50 known species of mammals,200 species of birds, and 36 species of reptiles. Native fish species include: Devil's Hole Pupfish, Tui Chub, and in the Colorado River, the Colorado Squawfish (Ptychocheilus lucius) razorback sucker (Xyrauchen texanus), Arroyo chub, and the Hitch, a heat tolerant slow-water dweller. Large animals include Bighorn sheep,coyote, Greater roadrunner,Sidewinder rattlesnake and Gila (**Hila**) monster, a reptile. One of the most important predators in the Mojave is the mountain lion. They are an apex predator in our ecoregion and my personal favorite. The Mojave is rich with animals, birds and other life.

Koen - Biodiversity - The biodiversity of the Mojave desert is vast and expansive, as it has a little of everything from forests of Joshua trees to singing dunes to broad mountains. It even has a tortoise federally listed as endangered, several families of scorpions, and over 200 endemic plants. There can be as many as 700 animals and 2000 plant species in the Mojave, depending on the season. This desert has surprising habitats, such as the Joshua Tree (Yucca brevifolia) Forest. This habitat is vital because it is a forest that filters air and provides wildlife cover for birds, mammals, insects, and lizards. Its' seeds are disseminated and spread by small mammals. This habitat stretches throughout California.

Central Basin and Range

Beckett- Geography- The Central Basin and Range has a complicated geography. For example, it has a lot of deserts, mountains, valleys, forests, plains, plateaus, high and low elevation. There are dry places like the deserts in Arizona, and wetter locations like the forests and mountains in Colorado. The Central Basin and Range spans portions of Colorado, Utah, Arizona, Nevada, and California. It is North of the Mojave desert, South of the Middle Rockies, East of the Sierra Nevada ecoregion, and west of the Colorado Plateaus. Through the diversity of geography comes diversity of plants and animals. For example in the Eastern part of the ecoregion there's tall aspen trees, lots of grass, and animals like mountain lions, bears, and deer, but in the Western part of the ecoregion there are lots of sand, cactus, and not as many animals.

Shawn-climate, plants-The Central Basin and Range has a vast variety of temperatures. Summer temperatures in the Southern Basin and Range often measure 100 degrees F or more. Yet the winter temperatures are mild, with few nights falling below freezing. In the rain shadow of the Cascades Mountains, the Northern Basin and Range is Oregon's driest ecoregion marked by extreme ranges of daily and seasonal temperatures. Much of the ecoregion receives less than 15 inches of precipitation per year, although mountain peaks receive 30-40 inches per year.
Plants and trees like the Single leaf pinyon have adapted to these broad temperatures. The Single Leaf Pinyon's scientific name is the *Pinus Monophylla*. This tree provides food for many animals such as porcupines, squirrels, raccoons, rabbits, ringtails, coyotes, and gray foxes. They eat the inner bark, it's a tasty treat for them. The single leaf pinyon is part of the pine family and is one of 114 species in the genus Pinus commonly known as pinyons.This tree grows in the four corners, Utah, Colorado, New Mexico, and Arizona. The singleleaf pinyon can get up to 50 feet tall and grows 4 to 6 inches per year. As you can see this tree plays an important role in the Central Basin and Range.

Olive-animals- Animals play an important role in the biological life of the central basin and range. For example beavers create ponds that help manage water. These ponds help with issues like drought, flooding, and water pollution. Beaver ponds also provide habitat for other animals, plants, and other species. you may find these beaver ponds in the wetlands of the central basin and range. There are lots of animals in the central basin and range. Water Shrews, Yellow-bellied Marmots, Beavers, Sagebrush Voles, Porcupines, Bighorn Sheep, and Pygmy Rabbits are all examples of animals in the region.

Stellas Question- What is the scientific name of the Beaver? -Response- Castor-

Middle Rockies

Rylan

Welcome to the Middle Rockies! The Middle Rockies have a diverse landscape and is geologically and climatically complex. On average the mountains in the middle Rockies range from 7,000 to 10,000 feet, uplifting 80 to 55 million years ago. However the tallest mountain, Mount Elbert, is 14,440 feet tall and is also the second tallest mountain in the lower 48 states of the 50 United States. The Middle Rockies range from alpine tundra, through coniferous and aspen forests, to pinyon-juniper and sagebrush, or expansive grasslands as low as 2,500 feet. All of the mountains are mainly made up of indigenous, seminary, and metamorphic rocks.

Emily

The middle Rockies is a very diverse land that has a fascinating climate. With the winds coming in from the west, the climate in the middle Rockies is mostly semiarid. However, for the precipitation, in the valleys, they get less than 20 inches per year, while in the mountains, it gets up to over 30 inches per year, but most of it is snow. The winters in this ecoregion tend to be severe, and summers are at a warm temperature in lower elevations in the south, and cooler in the north and at higher locations. Most of this ecoregion has a brief wet season in May and June, and some of it also comes from snow. Nevertheless, the climate in this ecoregion relates to how diverse and different the middle rockies is to all of it's other adjacent ecoregions such as the shortgrass prairie ecoregion, the colorado shrublands ecoregion, and the wyoming basin shrub steppe ecoregion.

Rhys

The Middle Rockies have a rich biodiversity. It has a mixed forest that includes deciduous and coniferous species. There are 67 mammal species, nearly 300 bird species and many types of reptiles, fish, and insects. Deciduous trees like Aspen undergo seasonal change while coniferous species that include Ponderosa pine, limber pine, lodgepole pine, Rocky mountain juniper, Subalpine fir, white fir, Colorado blue spruce and Bristlecone pine trees. They remain very thick and sappy throughout the seasons. Many animals live there such as bald eagles, black bears, elk, moose, white-tailed deer, lynx, porcupine, and red squirrels. This ecoregion is rich with biodiversity and life that helps the Middle Rockies thrive and grow to be a beautiful place.

Maddie

The Middle Rockies is a vast, stunning region with life flourishing around its remarkable landscapes. Lush plants and grasses grow in the exuberant valleys with animals and small rodents rummaging through the scenery.

Some common animals include the moose, yellow-bellied marmot, elk, and black bear. Ursus Americanus, the American Black Bear, is a large omnivore that is crucial for their environment. They help to spread nutrients and seeds from their droppings across the plains, renewing the soil and spreading more opportunities for vegetation to grow.

Speaking of vegetation, the Middle Rockies has many types of grasses, shrubs, and trees, like needle grass, serviceberry, and the aspen tree. The aspen tree is a very unique type of tree, as a group of them can all be connected to one singular organism. Aspen trees support diverse animal and plant species by providing habitat and food sources for them.

In conclusion, the flora and fauna keep each other thriving and their habitat healthy. They are both exceptionally beneficial for the Middle Rockies.

Canadian Rockies

Jasper-Intro and surrounding area and where it is: Hello and welcome to the Canadian Rockies ecoregion where we will be talking about habitat, location, surrounding ecoregions, creatures, and plants etc of the Canadian Rockies. I could just go on and on about this amazing ecoregion, so I will, this amazing ecoregion is full of life as Cody and Gunner will talk to you about and this 12,972 tall mountain range is so beautiful and intricate, but your all probably really bored right now so I'll talk about something a lot more interesting, the area and surrounding area.

The Canadian Rockies are located in an area in Canada just above Montana, stretching from the border of the US to just about just over halfway through Canada, some of the states that it goes through are Saskwatchewan, and Alberta. Some of the surrounding ecoregions are, central rockies, southern rockies, and the northern territories.

Cody and **Gunner** combined.

We'll be talking about the animals that inhabit the subalpine and alpine regions of the Canadian rockies. Some animals being the pika, Moose, Eagles, Bighorn Sheep, Grizzly Bear, Beaver, Elk, Deer, Wolf are just some of the many animals in the Canadian Rockies. **First, I will be talking about the hoary marmot. Which on the poster, is in the top left corner. The hoary marmot has a lifespan of around 12 years. One of their favorite foods is berries. These cute creatures usually stay low, to navigate away from predators, which include eagles, hawks, bears, and just about anything that is a carnivore. To navigate and avoid predators, hoary marmots dig deep into the ground to eat roots, and to just live and chill in general. They also whistle to warn other marmots of a predator. Now, Cody will be talking about...** The lynx. The lynx is a predator that eats and hunts many smaller animals which are usually carnivores. Some of the animals that It hunts are the hoary marmot, elk, snow shew hairs, birds, and meadow voles. **Now we will be talking about the subalpine of the Canadian Rockies.** On average, the treeline, (which is the average area of where the tree stops growing) is around 75 hundred feet tall in the Canadian Rockies, and the treeline gets a little higher as you travel south. And lower as you travel north. Now**, Tobin will talk about the geography of the Canadian Rockies.**

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Tobin
The Canadian Rocky Mountains, composed of both of the Alberta Rockies and the British Columbian Rockies, is the Canadian area of the North American Rocky Mountains. They are a mountain range that stretches between the Interior Plains of Canada and America and they follow the Pacific Coast that runs northwest and southeast from central Alaska to Mexico.

- Because of the high mountains in the area the Canadian Rockies are a source of several major river systems, including the Finlay, Liard, Fraser, Columbia, Saskatchewan, Peace, and Athabasca Rivers.

- The Rocky Mountains contain some of the highest summits in central North America creating lots of snow melt and water run off.

- In the Canadian Rockies area there are a lot of valleys in between the mountains and almost the entire upper area is covered in snow between fall and spring because of the tall mountains and cold climate.

Mid-Boreal Uplands

Lucia- Welcome to the Mid-Boreal Uplands, our ecoregion dwells in Canada. The Mid-Boreal Uplands is around Saskatoon and houses Fort Murray. The Ecoregion covers a little bit of British Columbia, most of Alberta, most of Saskatchewan, and some of Manitoba. The adjacent Ecoregions are Clear Hills and Western Alberta Upland, Aspen Parkland/Northern Glaciated Plains, Athabasca Plain and Churchill River Upland.

The Mid-Boreal Uplands has many different types of areas; mountains, rivers, lakes, grass and shrub lands, boreal forests, and woodlands. The more known mountains are the Duck mountains and the Riding mountains. There is the Alberta Plateau and the Thickwood, Pasquia hills, and Porcupine hills. The lakes and rivers are the Clearwater river, Meadow lake, Selwyn lake, the Churchill river, and the Athabasca river. Using Miriam's Life Zones, we found that we have four different life zones; the Transition Life Zone, an open ponderosa pine forest (6,000 to 9,000 ft), The Canadian Life Zone,a fir forest dominated by Duglas fir (7,500-8,000 ft to 9,000-9,500 ft), The Hudsonian Life Zone, a spruce-alpine fir community (8,000-9,000 ft to 11,500 feet), and the Arctic-Alpine Life Zone, which this life zone occurs above tree level and corresponds to the Arctic tundra (11,000 to 11,400 ft).

Good job! Great info!
What is your topic? Memorize!!!! -Alyssa

Jocelyn-

- Temperatures: $13^{\circ}c$ to $15.5^{\circ}c$ and $-13^{\circ}c$ to $-16^{\circ}c$
- Sub humid mid boreal climate→ not humid, not dry
- Climate change
- Fungi, bacteria, acidobacteria, proteobacteria,protists and archaea
- Uses→ dispose of dead, gut/health
- Downsides→eliminate tree species, gaps in tree canopy

Stella -15 plant and animal species that characterize your ecoregion-

- *Plants and animals that characterize the Mid Boreal Uplands like,*
  Lynx, wolves, coyotes, and **skunks**.
- *Higher order creatures help keep the populations of different species in check*.
  Skunks help w Grasshopper+Rodents, **Coyotes** help q skunks, racoons, and Foxes, **Wolves** help w deer elk and coyote, **lynx** help w snowshoe hare, deer and rodents.
- *Beavers and Racoons*
  Beavers help w **Water storage, Flooding forests** which create **bogs, fens, and swamps** Which are healthy to the forest, and **slow the FLOW of rivers and streams,** .
  Racoons, help w **Spreading seeds** and **eat dead animals and other things that have died.**
- *Plant life-mixed coniferous and deciduous forests-*
  Good for **Shelter and food.** When **young** trees are a good source of **food** for a number of different species like, **deer, elk, squirrels, voles, rabbits, porcupines, and more.**
- *Ending/ As you can see there are many plants and animals.*

Lani-Natural Biographies of plants and animals- The Mid Boreal Uplands are biodiverse. Species like beaver and fireweed play a significant role in the construction and restoration of the region's ecology. One animal that plays an enormous role in this ecoregion is a beaver. Beavers (*Castor canadensis*) are considered ecosystem engineers. They create ponds and construct dams. They manage water-related issues like drought, flooding, and water pollution. Beavers create habitats with their dams for other species like fish, mammals, and waterfowl. A plant that plays a tremendous role in the restoration of the Mid Boreal Uplands is fireweed. Fireweed is often found in wet calcium carbonate to slightly acidic soils in open fields, pastures, and particularly in burned-over lands. When an ecosystem faces disruption from a disturbance like wildfire, pioneer species like fireweed germinate. Germinating is when the plant begins to grow or puts out shoots to spread their seeds. Fireweed grows in a wide variety of disturbed or burned-over areas from sea level to the high alpine level. It roots in the disturbed soil and pulls minerals from the soil through its roots and revives the soil.

Hay and Slave River Lowlands

Brigham- The HASRL lies in northern Alberta. The microbiology of the hay and slave river ecosystem plays a central role in nutrient cycling during the revival of disturbed landscapes, contributing to successful vegetation restoration and long-term sustainability. Some fungi such as the meadow mushroom help the environment by nourishing forest trees through symbiosis. The mushroom is also a natural wood rotter. One of the very unique characteristics of our ecosystem is just the amount of diversity in geographical features encompassing mountains, prairies, desert badlands, vast forests, glaciers and more than 600 lakes. Another thing that makes the hay and slave river ecosystem unique is that our ecosystem has the highest number of sunny days in all of canada.
Sawyer- Key organisms in the Hay and Slave River Lowlands include the quaking aspen and the moose. The quaking aspen (Populus tremuloides) grow to be 50-60 ft tall, 4 ½ ft in diameter, and provides food and home for many animals including the black bear, deer, beaver, porcupine, elk, moose, ruffed grouse, and many smaller birds and animals. Aspens are clonal plants connected by common roots. Moose, (Alces Alces) eats mainly leaves, twigs, bark, shrubs, and aquatic plants. The average lifespan of a moose is about 10 to 12 years (but they can sometimes live to be 20 years old.) The Moose has few predators, but some of them include Cougars, Wolves, Grizzly bears, and Black bears. An adult male Moose (a bull) is about 6 ft tall at the shoulder hump, can weigh up to 1400 pounds, and can run up to 35 mph. These animals are important to the hay and slave river lowlands because the quaking aspen helps animals by giving them home and food, and the moose is one of the animals that eats the quaking aspen so there are not too many growing in a forest.
Emmett- The Hay and Slave River Lowlands has many different animal and plant species. Notable animals include: wolf, fox (red and arctic), bears (black, grizzly, and polar), elk, bald eagle, pikas, coyote, mountain goat, mountain lion, moose, caribou and deer. Notable plants include: white spruce, maple tree, wild rose, aspen, and cattail. The diversity of plants and animals emerges from The Hay and Slave River Lowland habitat diversity. It has plains, broad valleys, forests, and peatlands. Peatlands are essentially marshes that suck up a ton of carbon. Great Slave Lake lies in the region. And the Little Buffalo, Peace, Taltson, and believe it or not, the Hay and Slave rivers run through the region. The region averages about 520 ft to 630 ft above sea level. The climate of the Hazy and Slave River Lowlands is very dry with short cool summers and long cold dry winters. The average annual precipitation is between 12 to 16 inches. The average annual temperature is about 28.4 degrees fahrenheit.

Banks Island Lowland

Sam: Climate and Geography of Banks Island
Location
Ecozone–Arctic
Cycle of Daylight
Topography
Banks island is located in northeastern Canada. and is in the arctic. In fact it is so far in the arctic that there is night for 3 months of the year . It is a flat eco Region on the Arctic Ocean. It is very cold With a Average temperature of 0° f. The ocean around it is very icy with a lot of ice and is Usually frozen over .

Avery- Muskox
Banks Island is home to many unique animals. One of the most uncommon is the Muskox (Ovibos moschatus). Muskox are a species from a former time since they migrated into the Arctic when North America was covered with vast ice sheets and now only remain in small portions of Canada, Alaska and Greenland. Muskox eat a wide variety of plants, including grasses, types of bushes, forbes, and woody plants. Muskoxen are poorly adapted for digging through heavy snow for food, so winter habitat is generally restricted to areas with shallow snow accumulations or areas blown free of snow. Muskoxen are some of the easiest large animals to see in Alaska since they are slow-moving grazers that are found in groups on open tundra.

Iris- Habitats
The biomes in Banks Island ecoregion are mostly polar semi-desert and polar desert with localized areas of arctic tundra. The vegetation is a mixture of high arctic and low arctic species with lush, grassy meadows growing in the low, wetland areas, dwarf shrubs and plants on the surrounding moderately vegetated slopes and cushion plants and lichens in the higher altitudes. Banks island is the habitat of Arctic foxes, wolves, caribou, polar bears, muskoxen, and many birds.

Calvin-

- Banks island has lots of animals such as: polar bears, muskoxen, caribou, foxes, many birds, and wolves.
- Banks island covers 27,000 square miles, and has roughly 130 residents.
- It is the 5th largest island in Canada, and was found by William Parry in 1820.
- It has very long, freezing winters, and cold, short summers.
- The island's groundwater forms permafrost, and the climate is overall wet and cold.
- Most people who live on the island farm so that they have a way to provide food for themselves.