***EARLY BIOMES: DESCRIPTIONS***

1. **TROPICAL: SOUTHEAST ASIA:**

**Features**:

Densely forested, broad canopy with little light penetration to floor of forest

Broadleaf evergreen trees, generally shallow-rooted

Orchids, ferns, palms, mosses

Hot and humid, little seasonal change

Daily period of heavy rainfall

Great variety of birds

Reptiles – crocodiles, snakes, lizards

Rats, bats, wild pigs, dogs Fish and shellfish in nearby waters

Tree kangaroos

Insects

**Tool Kit**:

Flint [knives, scrapers, weapons]

Stone [grinders and pounders]

Bone [awls, needles, shovels, fuel, shelters, ornaments]

Wood [digging sticks, supports for shelters, fuel]

Composite tools [stone-tipped spears, spear throwers, harpoons

Fire

1. **DESERT: SOUTHWEST UNITED STATES**

**Features**:

Arizona Upland straddles the frost line where the upper slopes of mountains are forested with oak, juniper, and pinion pine. At lower altitudes: ironwood, mesquite, blue palo verde, acacia, and willow along streams

Shrubs (bursage and creosote bush) give way to yuccas, agaves, saguaro (up to 12 feet high), prickly pear, cholla and other cacti

Rainfall: 15-23 inches per year

Springs and seasonal streams

Bighorn sheep, javelina, ring-tailed cats, snakes, lizards, salamanders, frogs, desert tortoise, rabbits, kangaroo rats and other rodents

Mexican eagles, owls, roadrunners and other birds Insects

11,000 BCE: Camels, saber toothed tigers, mammoths, long-horned bisons, short-faced bears (taller than a Kodiak bear and able to kill almost anything with exception to a healthy mammoth), and panthers are all extinct.

**Tool Kit**:

Flint [knives, scrapers, and weapons]

Stone [grinders and pounders]

Bone [awls, needles, shovels, fuels, shelters, and ornaments]

Wood [digging sticks, supports for shelters, and fuel]

Composite tools—stone-tipped spears, and spear throwers

Fire

1. **TUNDRA: NORTHERN ASIA (SIBERIA)**

**Features**:

Bare, rocky ground supports low-growing shrubs, mosses, heaths, and lichen

No true soil

Lower latitudes: birches

Ground permanently frozen 10 inches to 3 feet deep

Little precipitation: 6-10 inches a year

Winter: cold and dark with high winds

Summer: top layer of permafrost melts.

Land gets soggy and covered with marshes, lakes, bogs and streams that attract migrating birds and insects [mosquitos]

Big animals: caribou, reindeer, musk oxen, wolves, and

Arctic foxes

Small animals: snow shoe rabbit, Arctic hare, and lemmings

**Tool Kit:**

Flint [knives, scrapers, and weapons]

Stone [grinders and pounders]

Bone [awls, needles, shovels, fuel, shelters, ornaments]

Wood [digging sticks, supports for shelters, fuel]

Composite tools—stone-tipped spears and spear throwers

Fire

1. **SAVANNAH: NORTHERN TERRITORY OF AUSTRALIA**

**Features**:

Terrain tropical perennial grassland, grasses 3 – 6 feet tall

Widely spaced, drought resistant trees, mostly eucalypts Rainfall 40” – 60” per year

Distinct dry season - frequent fires (burnt shrubs return nutrients to the soil and force animals into the open to feed which encourages regrowth)

Kangaroos, wallabies, possums, and echidna

35,000 BCE: megamarsupials

Varieties of lizards, snakes, and mice Insects—termites, beetles—and their larvae

Cockatoos, cranes, emu, and grass owls

Cycads: large palm-like plants whose kernels are very nutritious but highly toxic

**Tool Kit**:

Flint [knives, scrapers, and weapons]

Stone [grinders and pounders]

Bone [awls, needles, shovels, fuel, shelters, and ornaments]

Wood [digging sticks, supports for shelters, and fuel]

Composite tools --stone-tipped spears, spear-throwers, and harpoons

Fire

1. **FOREST: EUROPE**

**Features**:

Deciduous trees like ash, beech, and birch

Patches of evergreens in northern regions

Temperate climate: four seasons, warm summer, and cold winter

Ample rainfall fairly evenly distributed throughout the year

Animals: bears, reindeer, deer, squirrels, and foxes

Variety of birds: woodpeckers, warblers, tufted titmouse, and wood thrushes

Snakes, lizards, and frogs Insects

**Tool Kit**:

Flint [knives, scrapers, and weapons]

Stone [grinders and pounders]

Bone [awls, needles, shovels, fuel, shelters, ornaments]

Wood [digging sticks, supports for shelters, fuel]

Composite tools—stone-tipped spears, spear-throwers, and harpoons

Fire