

Easy- Species Character Sheet

Species Character Sheet

Species Name: _____

Type: ☐ Animal ☐ Plant

You will create a species (animal or plant) to see if your organism can survive various natural selection events. Each Ability corresponds to potential adaptations. You may add to the list of adaptations with teacher permission and as long as the adaptation fits into the category. After several natural selection events, your species will have changed and either adapted or died off.

1. Place the following dice modifiers **+1, +2, +3, 0, -1** under the Modifier column (no repeats). You will add or subtract those number(s) anytime you roll for that specific ability. For ability checks, roll 2d6 and add or subtract that total to any modifiers for that ability.

Ability	Example Adaptations	Modifier
Strength	Large size, claws, horns, root depths (plants), thick stems or thorns (plants)	
Perception	Eye sight, hearing, smell, camouflage, mimicry, touch response (plants)	
Constitution	Fur or skin thickness, ability to store food or water, wax coating (plants), resistances to diseases or pests	
Instinct	Intelligence, hibernation, migration, nocturnal, nest building, dormancy (plants), sap production (plants)	
Movement	Speed, burrow, climb, mating dances, pack hunting, herding, vining (plants), root growth (plants)	

- 2. Brief description and drawing of your species (keep in mind variability of traits in a population):**

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3. Starting HP is the population of your species. If you are not successful during an event, you will subtract a given amount from your population. If you reach 0, your species is extinct. You can use the table below to keep track of your population numbers.

Population HP	
100	

4. Fill out the Species Impact Table below for each event and how it impacted your species.

Event Number Description	How did it affect your species?	Describe how traits did or did not help survival. What new information did you learn about your species?

5. **Reflection:** Look at your original description of your species, how has your species' traits changed? How does this demonstrate Natural Selection? Use at least 3 vocabulary words: fitness, genes, environmental pressures, competition, frequency, trait, variation, reproduction.

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6. Place the following dice modifiers **+1, +2, 0, -1, -2** under the Modifier column (no repeats). You will add or subtract those number(s) anytime you roll for that specific ability. For ability checks, roll 2d6 and add or subtract that total to any modifiers for that ability.

Ability	Example Adaptations	Modifier
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7. Brief description and drawing of your species (keep in mind variability of traits in a population):

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9. Fill out the Species Impact Table below for each event and how it impacted your species.

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10. Reflection: Look at your original description of your species, how has your species' traits changed? How does this demonstrate Natural Selection? Use at least 3 vocabulary words: fitness, genes, environmental pressures, competition, frequency, trait, variation, reproduction.

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Events Table 1

Natural Selection Events Table 1 (Fires, Volcanoes and Ash)

Event Roll	Ability	Target Number	Event Description
2	Movement	Hard 11	Fires have started to occur more frequently in the ecosystem due to a nearby volcano. Roll to find out if your species is able to escape the aftermath of the natural disasters. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
3	Instinct	Easy 7	Ash in the air from a volcano has been limiting the amount of sunlight. Thus the climate in the ecosystem has changed to be more snowy and cold. Roll to find out if your species is able to survive the new colder climate. If you fail your ability roll, your population takes $1d6 + 5$ points of damage to your population HP.
4	Constitution	Hard 11	After escaping a volcano, organisms are living closer together. Due to this close proximity, a new disease is quickly spreading in the ecosystem. Roll to find out if your species can survive the disease. If at least one species fails their ability roll, everyone's population takes $1d6 + 5$ points of damage to their population HP. The disease is still spreading.
5	Movement	Medium 9	A random mutation has caused a predator to be able to increase their speed. The mutated predator has been increasing over the past few years. Roll to find out if your species can overcome this new predator. If you fail your ability roll, your population takes $1d6 + 5$ points of damage to your population HP.
6	Instinct	Easy 7	As temperatures decrease over the years, fresh water is trapped in ice. All organisms in the ecosystem have less available water. Roll to find out if your species can find water. If at least one species passes its ability roll, then everyone is safe- a new water source has been discovered. If no one succeeds then everyone takes $1d6 + 10$ points of damage to their population HP.
7	Perception	Hard 11	Food sources are running out due to increasing population density and less available water. The ecosystem is not able

			to keep up with the increasing demands. Roll to find out if your species can locate resources. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
8	Movement	Medium 9	Humans are hunting organisms in the ecosystem. Species must be able to evade the humans or risk being killed. Roll to find out if your species can escape the humans. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
9	Constitution	Medium 9	Humans are encroaching on the ecosystem. They are building sprawling factories and polluting nearby areas. The habitable area is shrinking for the organisms in the ecosystem. Roll to find out if your species can secure a habitable area. If at least one species passes its ability roll, then everyone is safe. A new habitat is found. If no one succeeds then everyone's population takes $1d6 + 10$ points of damage to their population HP.
10	Strength	Hard 11	A foreign plant was accidentally transported into the ecosystem. Seeds of the plant blew into shipping containers brought here by the humans. The seeds are now sprouting, taking root and spreading. This is making the native plants and animals either compete for resources or sick if they consume the plant. Roll to find out if your species can overcome the invasive species. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
11	Strength	Medium 9	Not all organisms are able to reproduce this year. Species must compete and fight with each other (pollen production for plants) for access to mates. Roll to see if your species was able to find a mate. If you fail your ability roll, your population takes $1d6 + 5$ points of damage to your population HP. If successful, add $1d6 + 10$ to your population.
12	Perception	Easy 7	Pollution from nearby factories has changed the ecosystem. The environment is full of dark smog. Roll to find out if your species can invade predators or find prey. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.

Events Table 2

Natural Selection Events Table 2 (Flooding, Dams and Water)

Event Roll	Ability	Target Number	Event Description
2	Perception	Hard 11	A dam was built nearby which caused parts of your habitat to flood. The man made lake above the dam frequently floods your species habitat downstream. Roll to see if your species is able to perceive the danger and survive the floods. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
3	Constitution	Easy 7	Trees have been cut down to build homes or submerged in a man made lake. This has caused excess CO₂ to build up in the atmosphere thus raising the temperatures slightly over time. Roll to see if your species can survive in the warmer climate. If you fail your ability roll, your population takes $1d6 + 5$ points of damage to your population HP.
4	Constitution	Hard 11	With abundance of water and warmer temperatures, a new disease is spreading in the ecosystem. Roll to see if your species is able to survive the disease. If at least one species fails their ability roll, everyone's population takes $1d6 + 5$ points of damage to their population HP. The disease is still spreading.
5	Perception	Medium 9	A predator has a new mutation. This predator now is able to see better and farther. Roll to see if your species can evade this mutated predator. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
6	Instinct	Hard 11	Due to the construction of a dam and man made lake along with frequent flooding, areas able to produce food for your species are scarce. Roll to see if your species is able to secure food. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
7	Movement	Hard 11	There are less available areas for your species to live. Humans have constructed a dam and man made lake, thus

			shrinking the habitable area. Roll to see if your species can find a habitat before it is taken by other organisms. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
8	Strength	Medium 9	Humans in a nearby city have begun selecting organisms in the ecosystem to domesticate. Some are bred as pets, used for labor or decoration (plants). Roll to see if your species was selected. If you fail your ability roll, your population takes $1d6 + 5$ points of damage to your population HP.
9	Instinct	Medium 9	A hydroelectric dam was constructed to provide power for an increasing amount of homes in your ecosystem. Roll to see if your species is able to find and adapt to a new habitat. If at least one species passes its ability roll, then everyone is safe. A new habitat is found. If no one succeeds then everyone's population takes $1d6 + 10$ points of damage to their population HP.
10	Strength	Medium 9	Humans brought a small herbivore into their city. Some of these escaped and are now in your habitat. There are no natural predators for this primary consumer right now. Roll to see if your species can survive this invasive species. If you fail your ability roll, your population takes $1d6 + 10$ points of damage to your population HP.
11	Movement	Easy 7	Not all organisms are able to reproduce this year. Species must compete by elaborate dances or seed dispersal (plants) with each other for access to mates. Roll to see if your species was able to find a mate this year. If you fail your ability roll, your population takes $1d6 + 5$ points of damage to your population HP. If successful, add $1d6 + 10$ to your population.
12	Strength	Easy 7	A nearby human city has spread out into the ecosystem. They brought an abundance of trash with them. Some of this trash pollutes your habitat. Trash can get wrapped on an organism as well as leech toxic chemicals into the ecosystem. Roll to see if your species is able to survive the trash pollution. If you fail your ability roll, your population takes $1d6 + 5$ points of damage to your population HP.