

## Turtle Research

What species of turtle to use?

I want the player to feel as though their survival is paramount and I want to convey the very precarious position that a turtle's life is in. Turtles already face challenges from the natural world they inhabit, this has been worsened by the impact the human race has had on the planet. From endangerment due to hunting, climate change, overfishing, and pollution in the ocean. One of the aims of this game is to draw to attention the impact of our way of life has had on our oceans.

The turtle I want to use needs to be an endangered, so the Green Turtle is a good candidate, this turtle is currently listed as endangered on the WWF site:

<https://www.worldwildlife.org/species/green-turtle>

This turtle is also very recognisable appearing in many documentaries and plenty of information is available on the species. The species is also a vital contributor to the prevention of climate change and the earths production of oxygen.

### The Green Turtle

The Green Turtle is one of the largest species of turtle, reaching between 31-47 inches in length and is an herbivore, baby Greens are omnivorous. They reside in tropical and subtropical waters.

The species maintain the oceans sea grass beds, keeping them tidy and productive. Sea grass is a vital habitat for our oceans, it provides shelter and nurseries for many aquatic species. It is also a source of food for many ocean dwellers and maintains water quality by acting as a carbon sink, storing carbon in its leaves and roots as well as trapping silt and decaying matter turning it into carbon rich sediment. Sea grass has been described as the 'Lungs of the sea' and is a vital contributor to oxygen and the prevention of global temperature rise.

The Green Turtle is vitally important for the ecosystem, but unfortunately the species numbers are in decline. The turtles face direct threat from humans by way of over harvesting of their eggs, hunting, a loss of their nesting beaches and are victims of bycatch by fishing vessels.

### Life of a Turtle

Turtles already face much adversity from birth, first they must hatch and leave the beach to get to the ocean. Baby turtles must avoid being eaten by crabs, birds, and other predators on the beach, and not fall into footprints or other craters along the way if they are to survive. If the turtle makes it to the ocean, they must then try to survive the pounding waves without drowning in them. Once in the ocean they are still not safe, costal waters are full of predators and they must commit to what's known as a 'swimming frenzy' to reach safer waters. They then return to shallower waters once they are larger, not much is known of where they go in between this period.

In normal conditions, it has been estimated that only 1 in 1,000 turtles will survive until adulthood.

Humans have made a turtle's survival much harder. Plastic is a huge issue for baby turtles. Research suggests that 52% of sea turtles have eaten plastic often mistaking it for jellyfish and algae. Often eating plastic for a turtle means death, the plastic can rupture internal organs, get stuck causing blockages, and result in starvation. If a turtle survives however, they may still experience issues such as unnatural buoyancy causing stunted growth and lower reproduction rates.

Turtles are also hunted for use in medicine and for trade. Their eggs are harvested for consumption. They are experiencing habitat loss of their hatching beaches as well as sea grass beds being exploited and destroyed. They are also victims of bycatch, getting caught in trawler nets and hooks being unable to reach the surface for air and so they drown in the net.

How will I use this information for my game?

I want to communicate to the player the information I have learnt about the Green Turtle and its struggle for survival under normal conditions and then add layers of stress via the issues that humans cause these turtles.

The aim of this game is to bring awareness to the struggles of marine life and to hopefully motivate some response in the player to this information.

I will be including links to more information and places and ways in which players can take action and help.

How the game will work?

The game will be a twine game which will be text based. The player will play as a turtle and will be presented with choices along the way that will have consequences to the survival of the turtle they play as.

An example might be:

'you emerge from the sand, its still light but the sand is beginning to cool. You can see the ocean just over the sand bank, the light glistening on the waves as they roll over one another.'

'leave the safety of your nest and venture out onto the sand'

'wait a little bit longer for the sand to cool further and the sun to set'

Players will be presented with choices that will either make their survival more or less likely. In this situation the player will run into more obstacles by leaving the nest as the sun is still up and the sand is still warm, more predators will be present as well as the risk of overheating from the sand.