

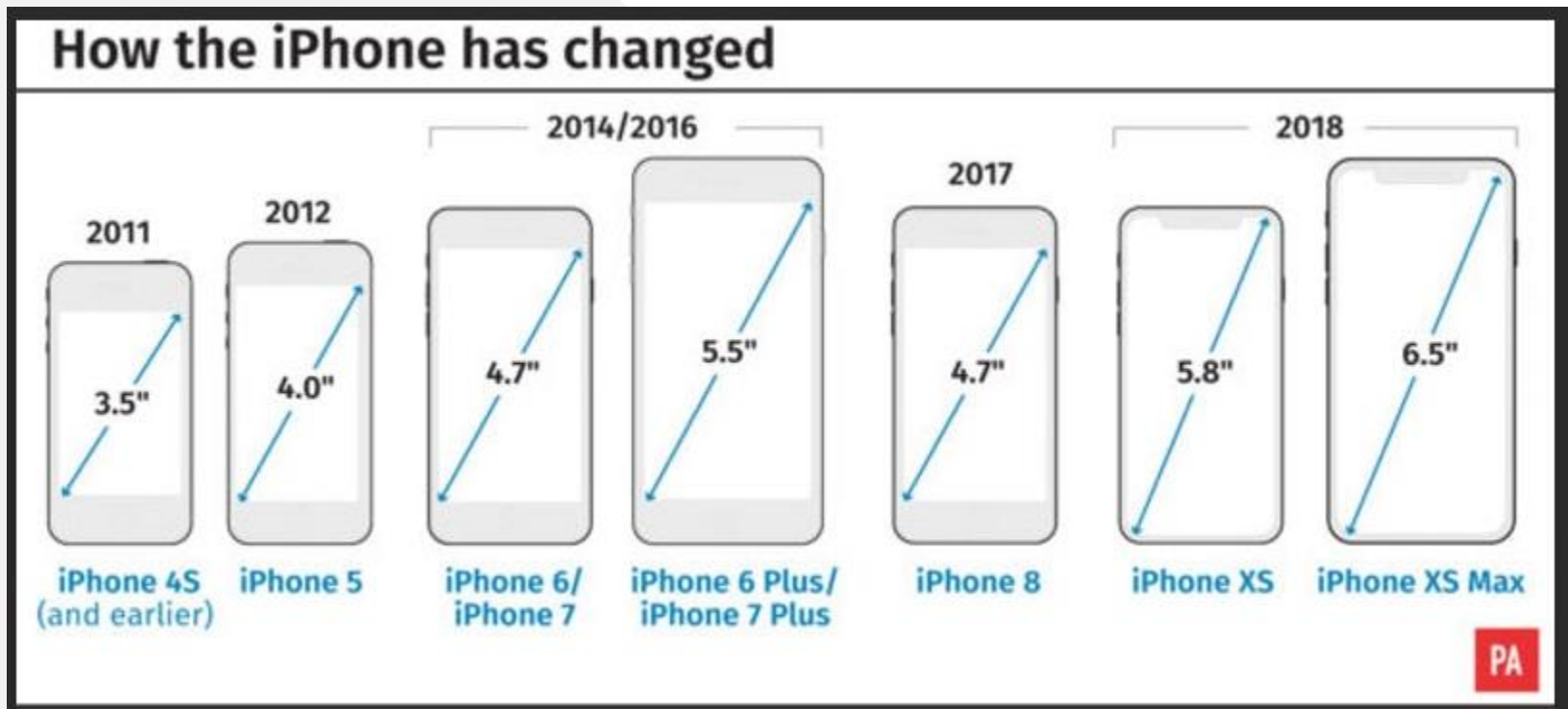
# ***YR 9 SYSTEMS AND CIRCUITS***

# PRODUCT ANALYSIS

You need to complete a product analysis of an iPhone using the questions found on the next slide.

We analyse products in Design & Technology to learn about them in order to make better products.

You may use any model of the iPhone.



# PRODUCT ANALYSIS

FUNCTION	WHAT THE PRODUCT IS DESIGNED TO DO?
FORM	SHAPE AND STRUCTURE OF A PRODUCT?
SIZE	LENGTH, WIDTH & HEIGHT OF A PRODUCT, NORMALLY IN MILLIMETRES (MM)?
STAKEHOLDER	TYPE OF PEOPLE WHO WILL USE THE PRODUCT?
SUSTAINABILITY	HOW ENVIRONMENTALLY FRIENDLY A PRODUCT IS, COULD BE TO DO WITH MATERIALS USED, LIFE EXPECTANCY OF PRODUCT, HOW EASY IT IS TO RECYCLE?
MATERIALS AND COMPONENTS USED	WHAT IT IS MADE FROM? FIND OUT HOW THE TOUCH SCREEN WORKS?
LIFE EXPECTANCY	HOW LONG THE PRODUCT HAS BEEN DESIGNED TO LAST FOR?
TEXTURE	THE FEEL OF THE PRODUCT- SOFT, ROUGH, SMOOTH ETC?
SAFETY	WHAT HAS BEEN DONE TO MAKE SURE THE PRODUCT WON'T HURT THE USER?
ENVIRONMENT	WHERE THE PRODUCT IS MOST LIKELY TO BE USED?
ERGONOMICS	HOW THE PRODUCT HAS BEEN DESIGNED TO BE AS COMFORTABLE AND EASY TO USE AS POSSIBLE BY LOOKING AT BODY MEASUREMENTS?
APPEARANCE	HOW SOMETHING LOOKS? DO YOU LIKE THE APPEARANCE OR DO YOU PREFER A DIFFERENT PHONE?
FINISHES	FINAL COATING ADDED TO A PRODUCT, USUALLY TO PROTECT OR TO IMPROVE THE APPEARANCE, WHAT DOES THE IPHONE USE?
COST	HOW MUCH THE PRODUCT COSTS TO MAKE? HOW MUCH DOES IT SELL FOR? DOES APPLE MAKE A LARGE PROFIT?
BRANDING	HOW A PRODUCT IS DESIGNED TO FIT A COMPANY'S STYLE, CAN INCLUDE CERTAIN SHAPES, STYLES, COLOURS AND LOGOS OF THE COMPANY? WHAT DOES APPLE USE AND WHAT IS THE HISTORY OF THE NAME?



Try to answer these questions in as much detail as you can. Explain what you mean and don't be afraid to say what you think about each part of the design. The more detail you put in your answer the higher your level will be.



# PRODUCT ANALYSIS LAYOUT IDEA 1

## HOW IT WORKS ENVIRONMENT

### The life of anteaters

"The giant anteater is a solitary creature and, aside from mothers and babies, they are rarely found in pairs"

## HEAD 2

### KENARTHRA



### 1. SUPER-SLOW

#### Sloth

This awkward-looking shaggy hangs in trees by its large, powerful claws, eating vegetation. They move very slowly and can spend a year in one tree.



### 2. ARMOUR

#### Armadillo

Another awkward-looking animal, the armadillo has hard, bony plates on its back, head and sides. It also has the ability to shed its armor for several minutes when digging.



**DID YOU KNOW?** Surrealist artist Salvador Dalí had a pet anteater which he used to take for walks.

### The statistics...



#### Giant anteater

**Genus:** *Myrmecophaga tridactyla*  
**Class:** Mammal  
**Length:** 2m (7ft)  
**Tongue length:** 0.6m (2ft)  
**Diet:** Carnivore  
**Weight:** 20-50kg (44-110lb)  
**Life span:** 5-15 years (wild), 26 years (captivity)  
**Status:** Threatened due to habitat destruction

**Fur**  
The anteater's fur is long, coarse and dense to help protect it from biting insects.

**Eyes**  
Anteaters are practically blind so they make up for this with their extraordinary sense of smell.

## Anteater anatomy

**Tongue**  
Inside the snout is that incredibly long, ant-slurping tongue. It's covered in sticky saliva and tiny back-facing spines (like a peewee) to help snag lots of bugs.



## Eating ants

Although they have poor eyesight, anteaters have a very keen sense of smell for sniffing out insects, which include ants – of course, termites, grubs and other small insects.

Once an anthill is located the animal uses its strong claws to rip into the prey's lair, making room to insert its long snout. Because some ants can sting and bite, mealtime is a fast and furious affair and the anteater has adapted techniques for licking up ants as quickly as possible. Each feast lasts about a minute before the anteater moves on to the next location.

Inside the anteater's long snout is an even longer tongue, which can protrude up to 60cm (24in). The tongue is covered with sticky saliva produced by extra-large glands and thousands of tiny back-facing spines known as filiform papillae to ensnare the bugs. When the snout enters an anthill the tongue rapidly flicks back and forth up to 190 times per minute, searching for ants. Because it doesn't have teeth, the anteater then crushes the insects against the roof of its mouth with its powerful tongue before swallowing.

Every day an anteater can consume between 30,000 and 35,000 ants, which is necessary for them to obtain enough nutrients. While ants may contain relatively high levels of protein and low levels of fat, their nutritional value for the giant anteater is low, so in order to conserve energy they move slowly and maintain a cool body temperature.

## Meet fam!

While the giz is terrestrial, are known to into the treat



### SILKY ANTI

Also known as pyg two-toed anteaters are the smallest ant species in the fam! arboreal, which is most of their time u – in fact, they're on the ground. To help around in the treat strong prehensile grip on to things, it swing from branch even from tree to tr much shorter snout species and soft gol

**Tail**  
The giant anteater's massive bushy tail is almost as long as its body. The tail is useful for balance if the anteater rears up to attack with its front paws. Also they sleep on the ground and use their tail to keep warm and remain hidden.

**Claws**  
Anteater forearms are very powerful with five deadly claws on each paw, the inner three of which on the front feet are especially long and sharp. This helps them penetrate the walls of termite forresses.

**Snout**  
While anteaters only have small mouths, the elongated snout can reach lengths of 60cm (24in). Because it's hollow, the snout is the ideal shape for sucking insects into the mouth. The tip of the snout is very sensitive, helping it probe inside tiny passageways.

An anteater's sense of smell is so acute it can detect the species of ant or termite before breaking into a nest

# Giant anteaters

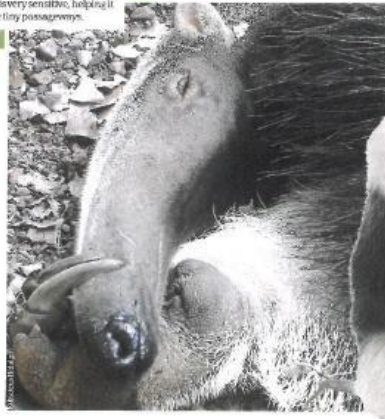
They have no teeth, walk on their knuckles and take life at their own pace, so how do they survive?

As is to be expected, the giant anteater, native to the savannas of Central and South America, is the largest of its kind. This bizarre-looking mammal is designed specifically for feeding on ants and termites, and a number of anatomical features enable them to do this with great skill. Powerful forearms and long, sharp claws help the anteater to tear into anthills and termite mounds so they can insert their long, tapered snouts to get at the insects. They are always careful not to destroy the nest so as to preserve the feeding spot for another meal.

While the claws are mainly used for breaking into anthills, they can also perform a defensive role. When attacked by their main predators, which include large cats like jaguars, anteaters have been known to lash out and kill these hunters. While giant

anteaters are slow, terrestrial creatures that walk around on their knuckles to protect the claws, smaller species of anteater are arboreal and spend a lot of time in trees looking for insects.

The giant anteater is a solitary creature and, aside from mothers and babies, they are rarely found in pairs or groups. Anteaters usually give birth to a single cub, who will then ride around on the mother's back for up to a year, clinging on to the thick, coarse fur. Because they live on a diet of ants, which have relatively limited nutritional value, the giant anteater does what it can to conserve energy: it has a very low metabolic rate and will sleep for up to 19 hours every day. They move around the grasslands very slowly – they cannot run – and keep their body temperature low, sometimes as cool as 32.7 degrees Celsius (90.9 degrees Fahrenheit).



### TAM

Tamandua, sometimes called or lesser species is semi-ar means they spend trees but also come around on the ground. Again, when prehensile tail can handy. There are 11 southern tamandua variety is distinguish by its more north also because of its back V shaped n located on its bac

# PRODUCT ANALYSIS LAYOUT IDEA 2



Email your iPhone product analysis to-

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