Tuesday 26th January 2021

O LO: Can I start to identify features in non-chronological reports?

Read through the examples of non-chronological reports below. Think about the features we discussed using the PowerPoint and video input and see if you can find them within the texts. For example, do the texts have a title and subheadings? Take some time to read each text and make a note of the features that stick out to you.

Butterflies

Butterflies belong to the order of insects known as Lepidoptera. This means they have scaly bodies and wings, and a feeding tube on the front of the head called a proboscis, coiled up when not in use. Their wings may be large, brightly coloured and patterned. Butterflies are found in most parts of the world and different species are adapted to the environments in which they live.

Like all insects, the butterfly's body is divided into three parts: head, thorax and abdomen. On the head are a pair of antennae, used for smelling, and two large compound eyes. Three pairs of legs and two pairs of wings – fore and hind – grow from the thorax. The wings are made of a very thin membrane, stretched over a network of 'veins', in the same way as the skin of an umbrella is stretched over the frame. Tiny overlapping scales on the membrane give the wings their pattern and colour.

Male butterflies tend to be more brightly coloured than the females but the females are larger. They also have bigger wings, enabling them to fly even when they are carrying a heavy burden of eggs. A female butterfly may lay up to 3,000 eggs, always choosing an

appropriate plant for the caterpillars to feed on. However, usually only one or two eggs out of a hundred hatch out and many others die as they grow through the stages of larva (caterpillar) and chrysalis (pupa) to become an imago (adult butterfly).

The imago usually has a lifespan of only a few weeks. It feeds on nectar from flowers or other sweet food, such as over-ripe fruit, which it sucks up through the proboscis. This food provides energy to fly and reproduce, but most butterflies do not need any body-building foods to see them through their short lives. In fact, a few species have mouthparts that do not open so they cannot feed.

GREAT WHITE SHARK

CARD 9

• ORDER •
Lamniformes

• FAMILY •
Lamnidae

• GENUS & SPECIES •
Carcharodon carcharias

• GROUP 4 •
FISH

KEY FEATURES

- The largest predatory shark, reaching a length of more than 6m and a weight of up to 3200kg.
- The only shark that regularly attacks and eats warm-blooded animals, such as seals and dolphins
- Has broad, serrated teeth up to 7.5cm long for slicing chunks out of large-bodied, thick-skinned prey.

WHERE IN THE WORLD?

Temperate oceans of the world, mainly off the coasts of North America, southern Africa, Australia, New Zealand, Japan, and parts of the Mediterranean.

PROFILE GREAT WHITE SHARK

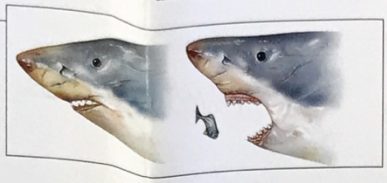
The spindle-shaped, streamlined body of the great white shark makes it one of the fastest — and most dangerous — fish in the sea.

SENSORY DEVICES

Small pores in the snout lead to receptors that pick up electrical nerve signals in the bodies of potential victims. Other sensors can detect blood in the water.

A BIGGER BITE

As the shark attacks, its snout lifts out of the way and the upper and lower jaws protrude to align the teeth and to increase biting capacity.



PECTORAL FINS

Wing-like pectoral fins provide lift, holding up the shark's body in the water as it moves forward. If it stops swimming, it starts to sink.

TEETH

The teeth are broad, sharp and serrated. Old, worn teeth shear off the outer face of each jaw, and new, sharp teeth move up from behind to replace them.

BODY

Broad in the middle and pointed at each end, the body slips easily through the water. Thick oil in the shark's large liver improves its buoyancy.

TAIL

Unlike most sharks, the great white holds its body quite stiffly as it swims and drives itself along with its highly efficient tail.

VITAL STATISTICS

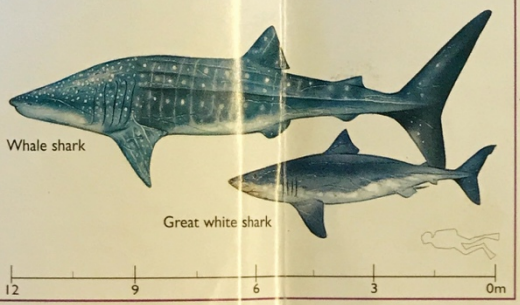
WEIGHT	2700–3200kg
LENGTH	3.6–7.6m. Female is usually larger than the male
SEXUAL MATURITY	About 7 years
MATING SEASON	Varies with habitat
GESTATION PERIOD	Probably about 12 months
NUMBER OF YOUNG	1 to 2
BIRTH INTERVAL	Unknown
TYPICAL DIET	Fish, squid, seals, dolphins, sea turtles, seabirds and whale carcasses
LIFESPAN	30–50 years

RELATED SPECIES

● The great white shark belongs to the group known as the mackerel sharks. Four other species in this group include: the salmon shark, the shortfin mako (below), the longfin mako and the porbeagle. They are all fast-swimming, highly streamlined hunters, which are considered to be dangerous to humans.

CREATURE COMPARISONS

Although the great white is the world's largest predatory shark, it is dwarfed by the whale shark, which typically reaches a length of 12m but may grow to 18m. Like baleen whales, this immense fish feeds on the tiny, floating animals of the plankton by straining them out of the seawater, and is quite harmless to other creatures.



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LIFECYCLE

The great white shark has evolved into one of the most efficient predators on Earth, able to locate its prey with astounding accuracy and kill it with a single, devastating bite.

HABITAT

▲ **BLUE WORLD**
The great white inhabits shallow coastal waters teeming with animal life.

The great white shark roams at large in many of the world's seas and oceans. Although it is easily capable of making long journeys across deep stretches of water, the great white spends most of its time in coastal areas and around reefs where there are plenty of fish and sea mammals to eat.

Rocky islands and headlands with seal colonies often attract several 'resident' great white sharks during the seal breeding season. The same sharks return to their favourite sites every year to feast on young and injured seals, and leave when the seals disperse into the ocean.

The great white shark avoids very warm or cold seas, preferring water with a temperature range of 10–21°C. This means it is very rare in polar and tropical waters, but regularly visits the shores of North Amer It has been known to wander as far north as Alaska, but its main es in America are the seal colonies of California where prey is easy to d.

◀ **THE VIEW BELOW**
The shark's big, black eyes give it superb vision f navigating and huntin . The eyes roll back into their sockets for protection ust before the shark attac s.

BEHAVIOUR

The efficient streamlining of the great white shark allows it to swim all day at low speed without wasting energy. This is important, because the shark specializes in hunting large prey like tuna, other sharks, seals and dolphins, which are often widely scattered, and it may have to forgo food for many days or even months. The great white cannot simply wait for a meal to swim into range, but must move on in search of prey. It also needs to keep swimming to force oxygenated water through its gills.

Great whites usually hunt alone, but they sometimes cruise the seas in company. Some pairs hunt in the same areas and even turn up at each other's kills. Whether they actually cooperate to hunt is not known, but because great whites are large-brained, intelligent creatures, it is possible. They are certainly not the solitary, mindless killers of legend.

▶ **LIFELONG JOURNEY**
This tireless ocean predator never stops swimming.

FOOD & HUNTING

Predatory sharks are equipped with a superb array of prey detectors. As a great white cruises through the ocean, it constantly monitors the taste of the water, changes in pressure, and even electrical activity.

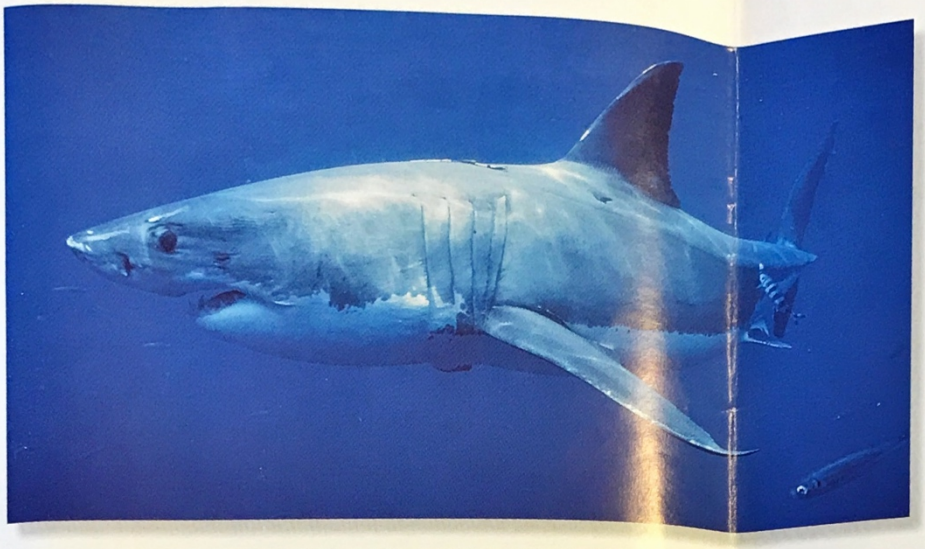
Chemical traces in the water probably provide the first indication of a possible meal, becoming stronger as the shark follows its nose toward the source. Like other fish, the great white has a battery of pressure sensors known as a *lateral line system*, and as it closes range, it can 'feel' the pressure waves generated by moving prey. It is also well equipped to see in the dim underwater light.

Closer still, it can sense the minute electrical pulses of its prey, which increase as the shark comes into view. Quite often, however, the victim is caught off guard as the great fish slams into it from below, tears off a chunk of flesh, and swallows it whole before returning to finish the job.

DEATH IN THE DEEP

1 Detect...
The great white shark picks up a trace of prey as it swims slowly through the ocean and turns toward the source of the scent.

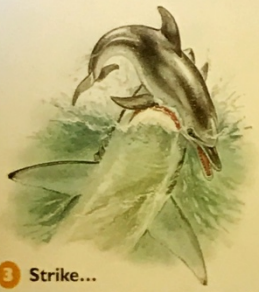
2 Attack...
Homing in on the prey, the shark attacks at a very high speed. Just before impact, the eyes roll back in their sockets and the jaws open wide.



DID YOU KNOW?

- A hunting great white shark often pokes its head out of the water to sniff the air for scent of prey. Although the shark may use these occasions to look around, it is unlikely that its eyes work efficiently above the water.

- Shark teeth were once used as razor blades by islanders in the Pacific.



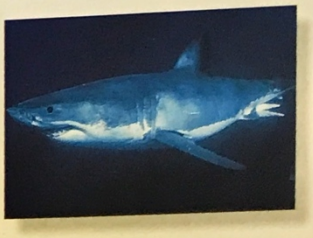
3 Strike...
The shark punches into its victim and closes its jaws. Thrashing its tail to drive its head from side to side, it saws through the flesh to take a bite.

4 Devour
The shark waits briefly for the shocked and bleeding animal to die. If it likes the taste of the flesh, it returns to the carcass for more.

BREEDING

Like other male sharks, the male great white has a pair of long 'claspers' that help inject sperm into the female. This means her eggs can be fertilized internally, so they can develop into young sharks inside her body.

While in her womb, the young feed on a supply of unfertilized eggs, a system that helps them grow rapidly but limits the number of young the female can produce. Unlike most fish, she gives birth to a few, fully formed young, instead of casting countless eggs into the water and chancing a few survive. Accordingly, the young are fully independent from birth. Their mother does not look after them, but she is careful to give birth in the shallows where they are less likely to become a meal for another shark.



▲ **SUBMARINE BREEDER**
A male reveals his claspers under the tail section.

CONSERVATION

The great white is rare, and, despite its reputation for ferocity, is not an enthusiastic man-eater. Most of its victims survive, suggesting that it dislikes the taste of human flesh. Statistically, a human is more likely to be killed by bees. Yet its blood-thirsty image has been used to justify wanton slaughter, and many great whites are killed every year. Attitudes are changing, though, and the species is now protected in California and South Africa.

THE BLUE WHALE – MAKING A BIG SPLASH

The most amazing fact about the blue whale is that it is the largest creature that has ever lived on Earth. This means that it is even bigger than any of the dinosaurs. By the time it becomes a teenager, it is about 30 metres long and weighs more than 30 elephants.

Baby blue whale

WHY BLUE?

The blue whale is named after its blue-grey skin, which may have white-grey spots. The underbelly may also have brown, yellow or grey specks.

BABY BLUE

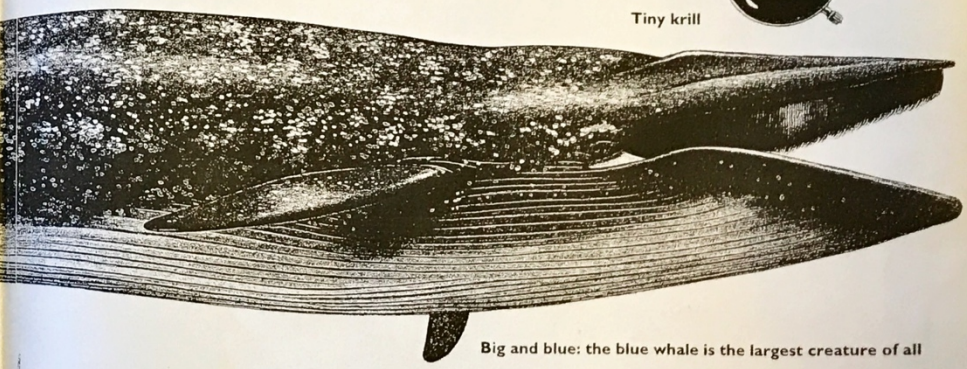
Blue whale calves are born tail first, near the surface of warm, shallow waters. At this early stage they are about seven and a half metres long, and are able to swim just 30 minutes after birth. Blue whales live for 35 to 40 years, although it is thought that some survive until they are about 110 years old.

OPEN WIDE

This enormous creature feeds mainly on some of the smallest creatures in the ocean, called krill. Krill look like shrimps and are about the size of a small human finger. In the summer, the blue whale eats several million krill each day. In the winter, it travels to new feeding grounds in the search for krill.

Inside the blue whale's gigantic mouth, there are no teeth. Instead, hundreds of stringy plates hang down from the upper jaw. They act like a giant sieve, filtering krill and other small creatures from the water. After every mouthful, the whale licks the plates with its giant tongue, swallowing everything that's been trapped there. As the whale gulps in vast amounts of seawater, the loose throat skin expands like a huge balloon. Then, it closes its mouth and pushes out the water with its tongue.

Tiny krill



Big and blue: the blue whale is the largest creature of all

RECORD BREAKERS

As well as being the largest, blue whales are the loudest animals on earth. They repeatedly make whistle-like sounds which can travel for many kilometres under water. The noise they make is much louder than an aeroplane, and so loud that it would be painful for humans to listen to, if they were too close by. These whale sounds are called songs, and may be used for locating large amounts of krill, and for communicating with other blue whales.

Information from The Big Blue Whale Book *by L. M. King.*