Fantastic Fossils!!!

- Read the information below about different types of fossils
- (Or click on the website link to zoom in and search around for more information)

- Write down the key information for each fossil

- Feel free to sketch a photo of each one when the paragraphs are done.

Ammonite

Ammonite

- Ammonites are related to the squids and octopuses you can see today, but they're all extinct - they died out at the same time as dinosaurs.

- Their shell is usually a flat spiral shape. It is made up of chambers, like little rooms within the shell, connected by a tube. The animal only lived in one of these chambers and used the other spaces to help it float. Some ammonites were tiny, others as big as a person.

- Ammonites lived in the sea. If you find an ammonite fossil in a rock, you know that millions of years ago the spot where you're standing used to be totally underwater.

- Good places to find ammonite fossils: Lyme Regis in Dorset and Runswick Bay in Yorkshire

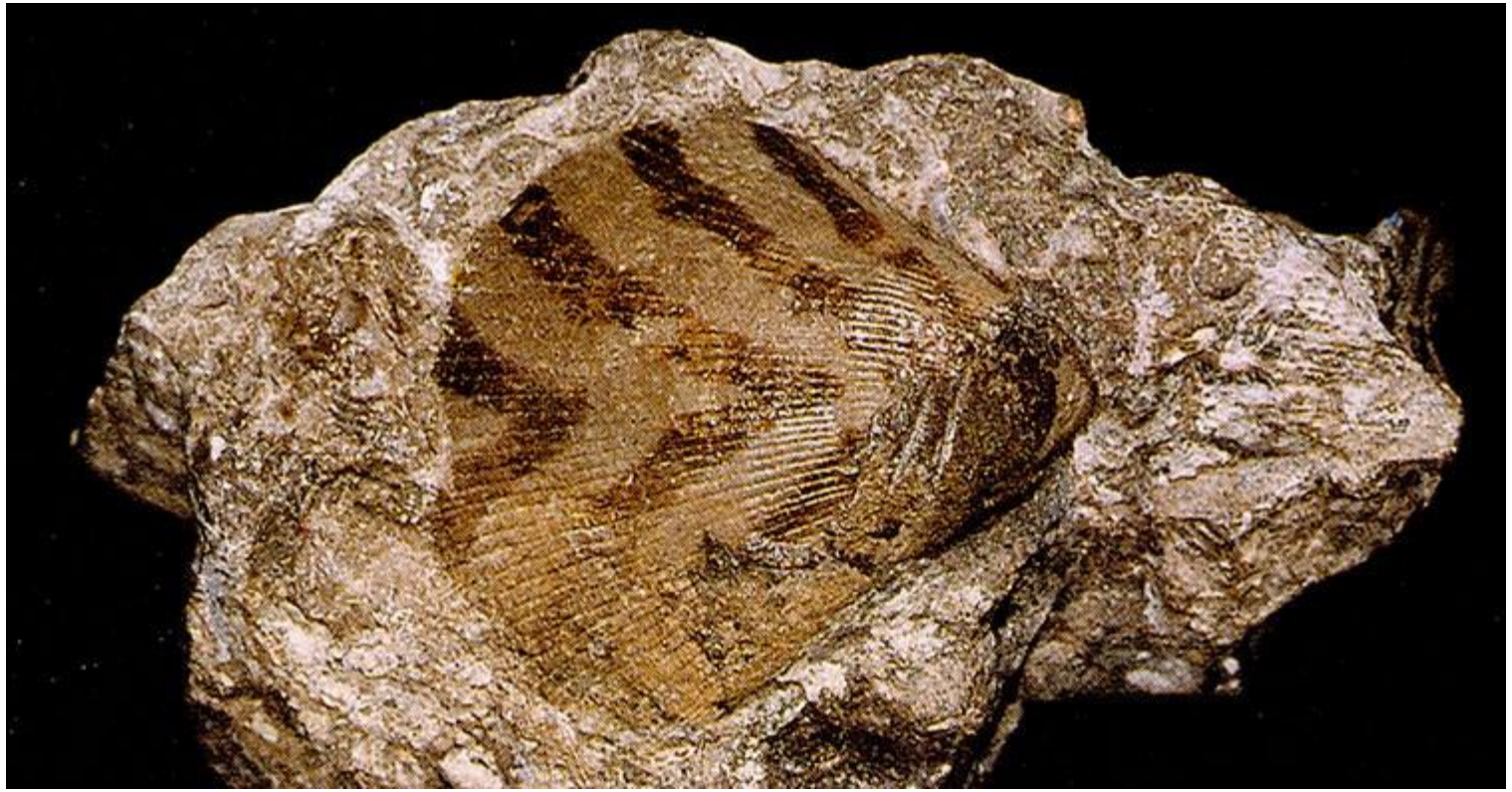
- Common in rocks aged: about 201 to 66 million years old (Jurassic and Cretaceous periods)

Trilobite

Trilobite

- These strange-looking creatures lived hundreds of millions of years ago. They are distant relatives of crabs and lived in the sea. Some swam, while others walked on the sea floor. By 251 million years ago they had all disappeared.
- Trilobites were many different shapes and sizes. Their bodies had three main parts - a head, body and tail. They had a hard cover on their back. This is usually what we are looking at when we find a trilobite fossil.
- We know that many trilobites could roll up, like woodlice can, as fossils often show them in this position.
- **Good places to find trilobite fossils:** Torquay in Devon, Marloes Sands in Wales and Coniston in Cumbria. Two very famous sites are Wren's Nest in Dudley and Girvan in Scotland.
- **Common in rocks aged:** 485 to 419 million years old (Ordovician and Silurian periods)

Bivalve



Bivalve

- Bivalves have two shells, known as valves. Their shells are usually mirror images of each other.
- Bivalves still live in the sea and in freshwater around the world. Some dig burrows in sand or mud, others just lie on the surface, and some attach to a hard surface. Oysters, mussels and cockles are probably the most well-known examples alive today.
- The oldest bivalve fossils are over 500 million years old. But they are much more common in younger rocks. Sometimes there are so many fossil bivalves that they form whole layers of rock.
- Good places to find bivalve fossils: beaches and cliffs around the coast of southern, eastern and northern England, South Wales and southern Scotland
- Common in rocks aged: 201 million years old and younger (Jurassic Period onwards)

Brachiopod

Brachiopod

- Brachiopods live in the sea, usually attached to a hard surface.
- There aren't many different kinds of brachiopod around today, but there used to be, so there are lots to find and identify. They are very common fossils in rocks over 66 million years old.
- Brachiopods look very similar to bivalves, as they also have two shells. The best way to tell the difference is to compare the size and shape of the two shells. In brachiopods one shell is usually bigger than the other, and the larger shell has a small hole at the top.
- **Good places to find brachiopod fossils:** southern, eastern and northern England, Wales and southern Scotland, particularly on the coast where rocks are exposed
- **Common in rocks aged:** 541 to 66 million years old (Palaeozoic and Mesozoic era

Sponges

Sponges

- Sponges are ancient animals that mostly live in the sea. Their bodies consist of simple groups of cells which can arrange themselves into large and complex shapes.
- Some sponges produce a skeleton made of silica (the hard substance that sand is usually made of).
- When sponges fossilise, the silica sometimes dissolves and then forms flint. This rock sometimes preserves fossils, including other sponges. So you can often find fossil sponges on beaches where most of the pebbles are made of flint. Look out for flint pebbles with patterns of holes in them.
- Flint is usually dark grey or brown but it often occurs in lumps with a thin, white outer layer.
- **Good places to find fossil sponges:** pebbly beaches in southern and eastern England, particularly ones close to chalk cliffs
- **Common in rocks aged:** 145 to 66 million years old (Cretaceous Period)

Sea Urchins

Sea Urchins

- Sea urchins are related to starfish. They live in the sea, either buried in sediment such as mud or sand on the sea floor, or on top of it.
- Sea urchins are often quite round, and about the size of an apple. They can also be heart-shaped or a flat disc.
- When the animal is alive, its skeleton is covered with skin and many sharp, needle-like spines. When it dies, the spines fall off, so you won't often find them as part of the fossil, but you can see the round lumps where they used to be attached.
- If you look in chalk rock you might find lumps of flint that have sea urchin fossils in them. And when you are on a beach keep a look out for a rounded pebble with a starfish-like pattern on it - you might get lucky.
- Good places to find sea urchin fossils: pebbly beaches in southern and eastern England, particularly those near chalk cliffs
- Common in rocks aged: 201 to 66 million years old (Jurassic and Cretaceous periods)