

LET'S LEARN ABOUT ROCKS

Every rock is totally unique. At Aggregate Industries (AI) it's important to know the different types, so we can choose the right rock for the job.

HOW ARE ROCKS MADE?



IGNEOUS ROCKS

Left over from cooled volcanic magma or lava.



SEDIMENTARY ROCKS

Created by settling particles, like ancient sea particles.



METAMORPHIC ROCKS

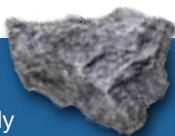
Made by the Earth's movement, heating and pressuring.

Each of them have different properties that make them great for different AI products. **Let's take a closer look:**

IGNEOUS ROCK

These rocks contain interlocking crystals. How big the crystals are depends on how quickly the magma cooled and what it was made of.

They're generally the hardest and heaviest of all rocks but, because of varying conditions, some are so light they float.



Rockin' fact

If magma cools slowly you get large rock crystals. If it cools fast you get small crystals.

SEDIMENTARY ROCK

These rocks are made from a combination of minerals. For example a river might transport bits of rock, plants and marine life along then these sink and solidify, forming new rock.

These are the rocks you'll find in asphalt. We use it to surface our roads, and mix it with concrete and cement to build houses.



Rockin' fact

You'll sometimes find fossils between the layers of sedimentary rocks.

METAMORPHIC ROCK

These are formed from heating and pressuring igneous and sedimentary rocks.

Earth's movements cause buried rocks to be put under pressure.

The heat causes the minerals to change. For example, the crystals morph into bands.



Rockin' fact

Marble is formed from limestone and slate is made from shale.

HERE ARE SOME IGNEOUS ROCKS YOU MIGHT KNOW:

Granite

This is a hard, heavy rock with large crystals. We use it for building and paving stones.

Pumice

Lightweight and abrasive with small crystals. Often used to exfoliate, especially our feet.

HERE ARE SOME SEDIMENTARY ROCKS YOU MIGHT KNOW:

Chalk

A soft, fine grained rock made from shells and marine life. It's used for drawing and in sports too - like climbing and gymnastics.

Clay

Clay is made from compacted minerals. It's used in pottery because it's flexible when it's wet, then hard when heated.

HERE ARE SOME METAMORPHIC ROCKS YOU MIGHT KNOW:

Marble

Grainy in consistency and milky white in colour when pure, marble is great for sculptures.

Soapstone

Non-porous, soft and easy to carve, soapstone is used for jewellery and trinkets.

LET'S LEARN ABOUT ROCKS

Tell us what kind of rocks these are, then draw a line to match them with what they're used for.

Granite

Pumice

Chalk

Soapstone

Clay

Marble



**SEDIMENTARY
ROCK**



**IGNEOUS
ROCK**



**METAMORPHIC
ROCK**

Sculptures

Paving
stones

Jewellery

Potter

Exfoliating
stone

Drawing

ROCKS WORDSEARCH



Igneous

Sedimentary

Metamorphic

Slate

Shale

Granite

Pumice

Chalk

Clay

Limestone

Marble

Soapstone

Permeable

Porous

Crystals

Aggregate

Asphalt

Minerals

LET'S LEARN ABOUT ROCKS: FROM QUARRY TO CREATION

Our planet is made almost entirely from rocks. You'll find them everywhere from up in the mountains, to the sand at the beach. And, of course, they're super useful. We use different types of rocks, or aggregate, to build lots of important things you may not even think about, like the pavement we walk on and the roofs on our houses.

But how do rocks get from the ground to our homes?

Here's how we turn them into the stuff we use every day:



WE DECIDE WHICH ROCKS WE NEED

There are three types of rocks that we use for different things we make:



IGNEOUS

Left over from cooled volcanic magma or lava.



SEDIMENTARY

Created by settling particles from different environments. For example, ancient sea particles.



METAMORPHIC

Made by the Earth's movement, heating and pressuring.

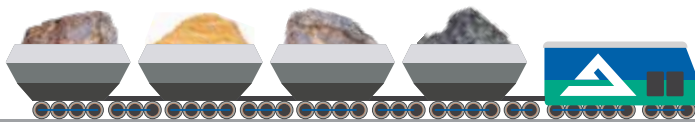
Some are better than others for different jobs. For example Marble, a metamorphic rock, is great for making statues.

WE TAKE THE ROCKS ON A JOURNEY

Last year Aggregate Industries transported 4.8 million tonnes by rail and 6.8 million by ship. We use trains and ships as much as we can to transport the rocks around the UK because it's more environmentally friendly and means less traffic on the roads.

WE GATHER ROCKS FROM THE EARTH

We blast the rock, making a deep pit called a quarry. Then we scoop out the right minerals for different jobs, crushing and screening them on-site ready for transportation.



WE MAKE THE ROCKS INTO THINGS

When they've finally finished their journey, we use the rocks to make aggregate. Aggregate makes things like asphalt, used to surface roads, and mixed with concrete and cement to build houses.

ROCKIN' FACT

Did you know that building a house takes 60 tonnes of rock? That's more than an African Elephant.

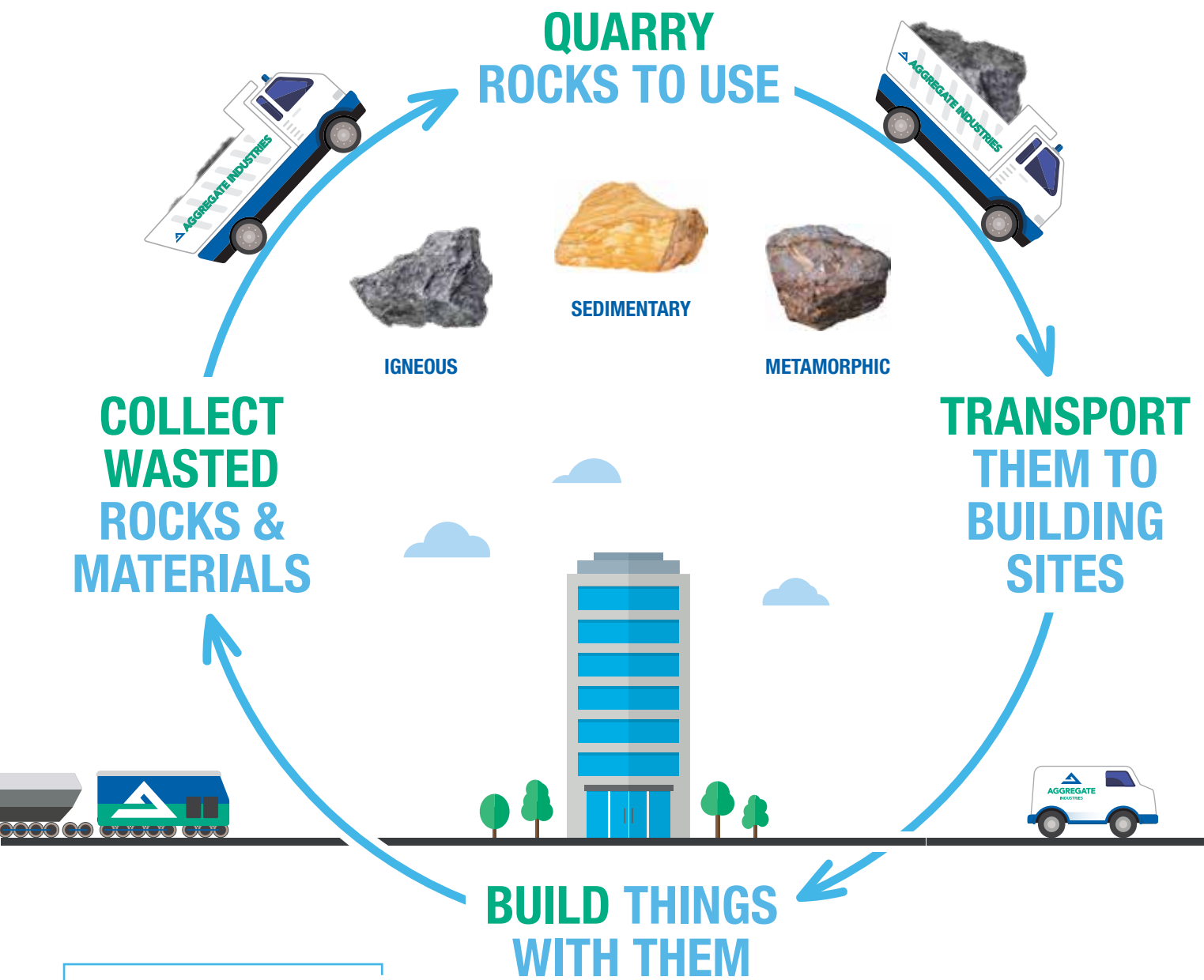


AGGREGATE INDUSTRIES & THE CIRCULAR ECONOMY

Humans make far too much waste which is really bad for the planet. That's why we need a circular economy.

This means instead of throwing things away, we can recycle them and remake them into something new and useful. **So, every material has more value and nothing gets wasted.**

Here's how Aggregate Industries do it:



ROCKIN' FACT

Quarrying dates all the way back to the Stone Age.

