

Support – the facts!

Everybody needs bones to prop themselves up. Gravity wants to pull everything down, including the squishy bits that make up 70% of our bodies. Think of a jellyfish or an octopus – they have no bones and they are just blobby messes when you see them on land.

Your bones all link together to fight against gravity. They are hard and supportive. Your muscles attach to your bones by tendons and sinews. The muscles can then hold all of bones together and allow you to form a human shape. Remember, your bones 'hold you up' against gravity which wants to pull your squishy bits down.



Support – the questions

You often see models of skeletons standing up all by themselves. Is this possible in real-life?

Explain your answer.



Builders need to support buildings whilst they work on them. They use a structure that is a lot like a skeleton.

What is it and how does it work?



Some people think that different animals are shaped the way they are because that's how their muscles are arranged. Is this right or wrong?

Explain what you think.



Movement – the facts!

All animals can move. Most animals use feet, legs, arms or wings. Muscles make the movement happen, but without a skeleton we would all just twitch a lot and go no-where!

Your skeleton has many bones connected with joints that give your muscles something to pull against. Lean over and feel how your muscles are pulling your **spine** into different places.

Without bones which are jointed, we would be frozen into one shape. Your skeleton allows movement by allowing your body to bend and twist at the same time as being stiff enough to allow your muscles to work.



Support – the questions

How many different **types** of joint can you feel? Some bend in every direction (e.g. your neck), some only in one (e.g. your knee). Some joints let you rotate (e.g. your hips). Try them out and see.



Slugs and worms don't have any skeletons. How do they move? Can you think of other animals that are 100% squishy? How do they move?



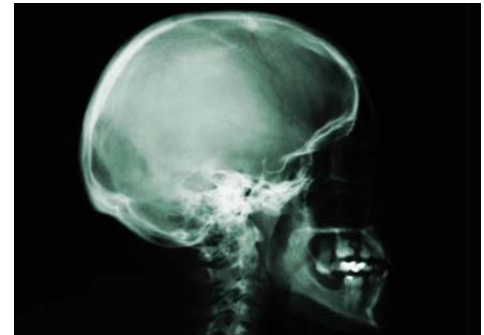
Think about what happens when you run. How many joints move and how many bones change position? Try it out and don't forget to keep count.



Protection – the facts!

Bones are hard but all of the organs in your body are soft and vulnerable.

It is the job of parts of your skeleton to stop these important organs getting damaged.



Protection – the questions

Where are these organs, and how does the skeleton protect them?

How else does your skeleton to protect you if you were to fall over, or get attacked by an animal for example?

Archaeologists discovered that stone-age man had very thick bones – especially their skull and ribcage.

What clues does this give us about how they lived?

Brain



Lungs



Heart

