





TURTON SCHOOL YEAR 8 PE KNOWLEDGE ORGANISER – TOPIC 1: WARM UP/COOL DOWN



Stages	Why do we prepare in this way?	Activities include
Pulse Raiser Warm up 1	This allows us to increase our heart rate and the amount of blood pumped round our body which carries more oxygen to the muscles we are going to use.	Jogging Side steps Heel flicks Knees up Crossovers     
Stretching Warm up 2	Increased blood flow to muscles. Increased range of motion at joints Greater flexibility Reduced risk of injury	Opening up groins, Brushing the floor (hamstrings) Kicking the door down (Quadriceps)       
Increased Intensity Activity Warm up 3	This stage allows the performer to take part in movements that will take place during activity. Increase mental preparation ready for game to start. Increase performance levels with game specific movements.	75%- 100% pace when running. Match related scenarios (twisting and turning at speed) 
Cool Down	Return heart rate to resting levels gradually. Remove lactic acid from body (reduce cramp)	Walking/Slow jog Static stretching 

Injuries	Definitions
Concussion	Temporary unconsciousness or confusion and other symptoms caused by a blow on the head. Could be due to a clash of head during a football match.
Fractures	A break in bone or cartilage. Although usually a result of trauma. Could occur due to a dangerous tackle in football.
Torn Cartilage	Cartilage covers the surface of joints, acting as a shock absorber. It can become damaged as a result of a sudden injury, such as a sports injury, or gradual wear and tear.
Soft tissue injury	A soft tissue injury is the damage of muscles, ligaments and tendons. Common soft tissue injuries usually occur from a sprain, strain, a one off blow resulting in a contusion or overuse of a particular part of the body.
How to treat a soft tissue injury	
R 	Rest Stop activity to prevent further injury.
I 	Ice Apply an ice pack to reduce blood flow, pain and swelling.
C 	Compression Wrap a bandage tightly around the area to reduce internal bleeding and swelling.
E 	Elevation Raise the injury above heart level to reduce swelling and throbbing.

What happens if we are not active?

By not exercising appropriately our bodies will store the majority of our food intake. This will then increase our body weight and as you are not burning any calories off then the likelihood of obesity occurring will increase. This is when you are deemed to be heavily overweight with high body fat.

There is also an increased risk of long term diseases such as Heart disease, High blood pressure and diabetes.

Carbohydrates:



These are very important for performers as they are the bodies fuel. Just like a car needs petrol to move, our bodies need energy to be able to provide movement. Carbohydrates are stored as glycogen. They release the energy that is used by our muscles.

The optimum time to refuel is straight after exercise as our body is more efficient at this time. Waiting any longer and the body slows down. Eating after exercise helps you recover quicker.

Endurance athletes such as marathon runners would carbo load and eat a high carb meal to store as much glycogen (energy) as they can within the body leading up to events.

Macronutrients



carbs



proteins



fats

Macronutrients

Macronutrients are those nutrients required in large amounts that provide the **energy** needed to maintain body functions and carry out the activities of daily life.

Carbohydrates

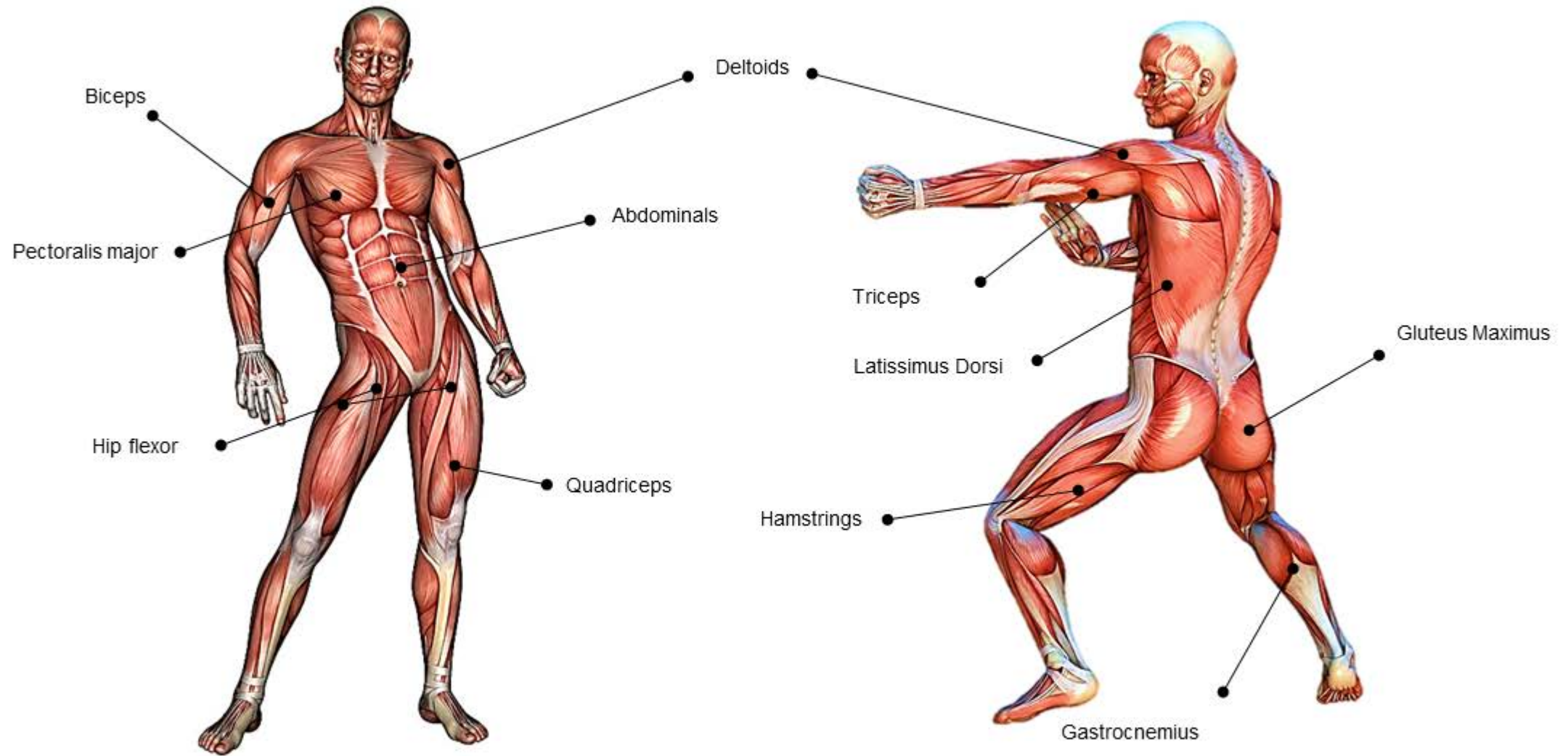
Carbohydrate is arguably the most efficient source of **energy** for athletes. Once eaten, **carbohydrates** break down and get absorbed and used as **energy**. An example of a carbohydrate is pasta, this is why we eat pasta before a performance.

Protein

Protein builds and repairs muscle. We only need 15% of our diet to be protein. An example of protein would be meat and fish.

Fats

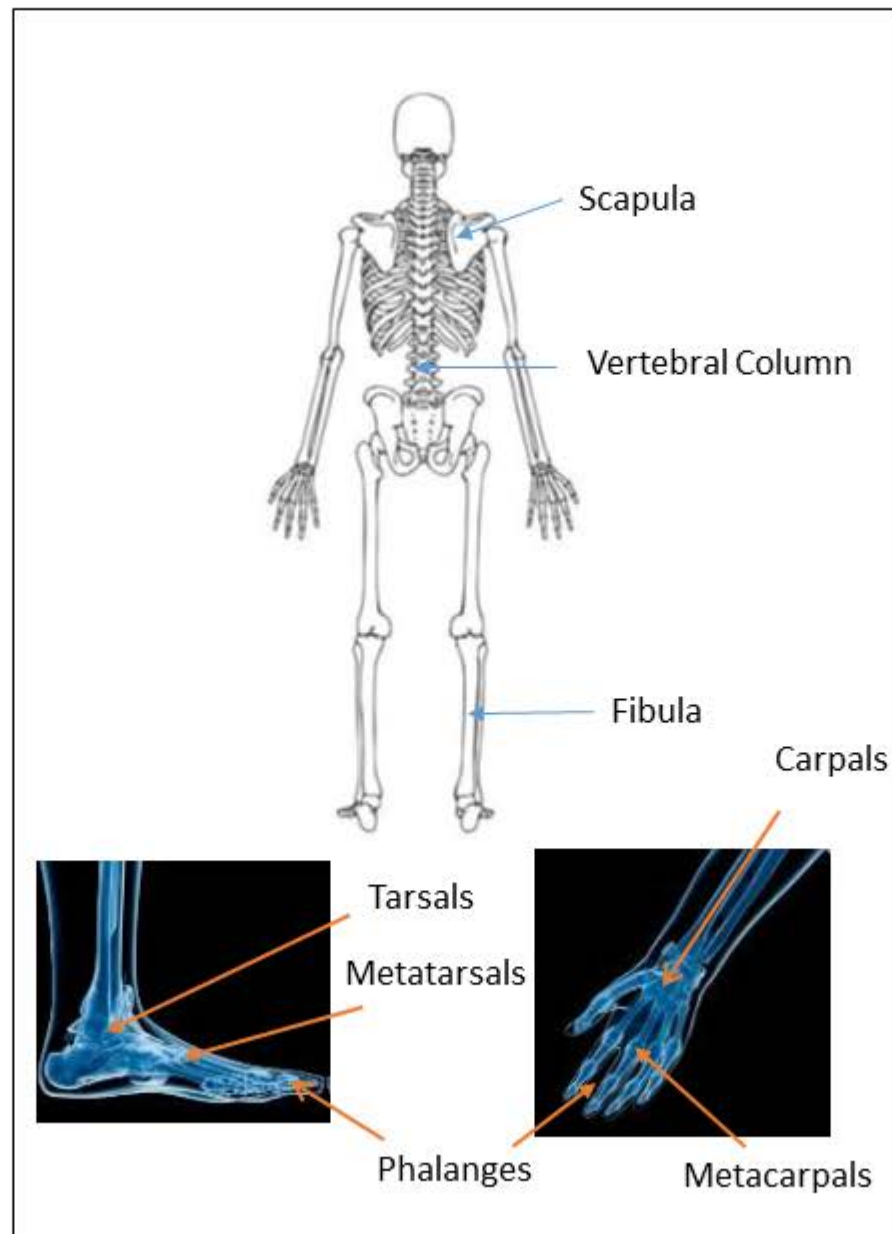
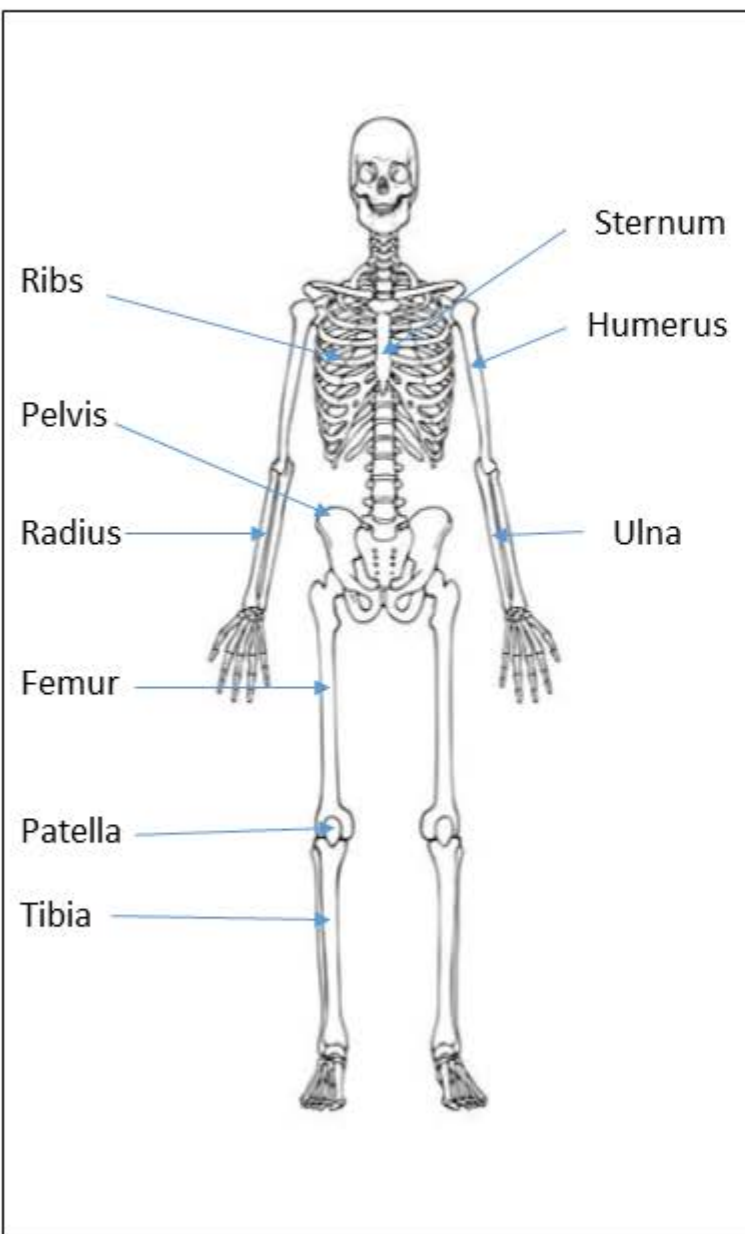
Provides slow energy. 25% of our diet should be fat. These can be found in oils, dairy products, nuts and fish. It acts as a secondary energy source.








Voluntary Muscles

1. Attached to the skeleton by tendons
2. Muscle fibres that are long and thin contract and pull the skeleton to cause movement

TURTON SCHOOL YEAR 8 PE KNOWLEDGE ORGANISER– TOPIC 4: THE SKELETAL SYSTEM



Flexion	Decreasing the angle at a joint 
Extension	Increasing angle at a joint 
Abduction	Movement away from the body 
Adduction	Movement towards the body 
Rotation	Circular movement at a joint 

TURTON SCHOOL YEAR 8 PE KNOWLEDGE ORGANISER – TOPIC 5: FITNESS TRAINING



All performers have **components of fitness** that work together to enhance a performers ability. These are described below.

Component of fitness	Importance in sport
Agility	The ability to change position and control the body at speed.
Balance	The ability to keep the body stable when still or moving.
Body composition	The percentage of body weight that is muscle, fat or bone.
Co-ordination	The ability to use two or more body parts together.
Cardiovascular Fitness	The ability to exercise your body for long periods of time.
Flexibility	The range of movement around your joints.
Muscular Endurance	The ability to use voluntary muscles repeatedly without getting tired.
Power	The ability to undertake strength performances quickly.
Reaction time	The time between the presentation of a stimulus and the onset of movement.
Strength	The ability to exert force.
Speed	The rate at which an individual can cover a distance.

Standing Broad Jump	Sit & Reach	12 minute Cooper run	Alternate hand wall through	Illinois agility test	30 metre sprint test
					
Leg power	Flexibility	Cardiovascular Fitness	Co-ordination	Agility	Speed

SMART Targets	
Specific	very clear and relate directly to the task or skill
Measurable	evaluate progress against a standard or assess against previous performance
Achievable	realistic, not too hard but not too easy, challenging but within the performer's capacity
Realistic	know it is practical. E.g. I will achieve it by the end of this summer term
Time-bound	state when it will be achieved, set a time limit for completion (goals may be short term or longer term, but should always have timed steps along the way)