

I.E.S. MIRADOR DEL GENIL

Physical Education Notes first
term 2º E.S.O.

CURSO 2012-13

I.E.S. MIRADOR DEL GENIL

UNIT 2. TERMINOLOGY OF JOINT MOVEMENT

Movements

There are different types of movement available at different joints, for example the shoulder moves in far more ways than the knee. Here are the main types of movement:

Flexion

Reducing the angle at the joint, for example bending the knee or elbow is flexion.

Extension

Increasing the angle at the joint, for example straightening the knee or elbow is extension.

Adduction

Moving the body part towards the centre of the body, for example bringing one leg in towards the other is adduction.

Abduction

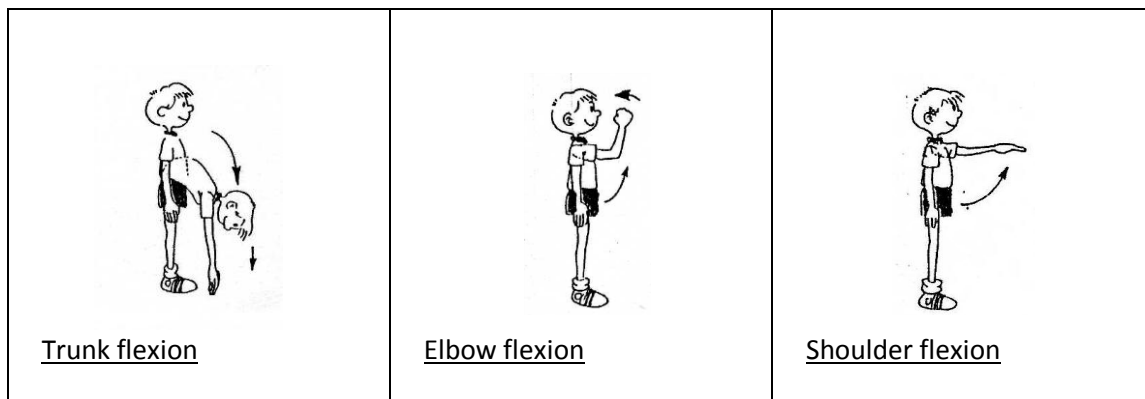
Moving the body part away from the centre of the body, for example taking one leg away from the other is abduction.

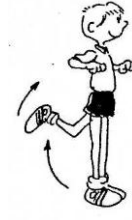
Rotation

Turning or twisting a body part, either clockwise (external or lateral) or anti-clockwise (internal or medial), for example turning your leg to point the toes outwards.

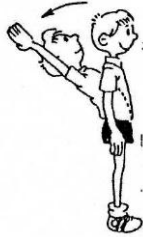
It is necessary to establish the correct terminology to describe the diverse joint movements.

FLEXION: The movement in which two body parts with common articulation bend toward each other

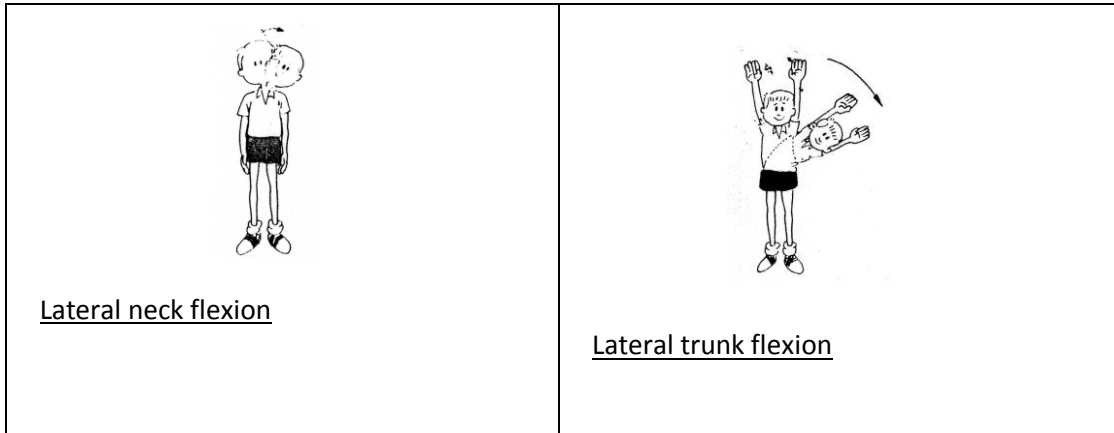


Hip flexionAnkle flexion or DorsiflexionKnee flexion

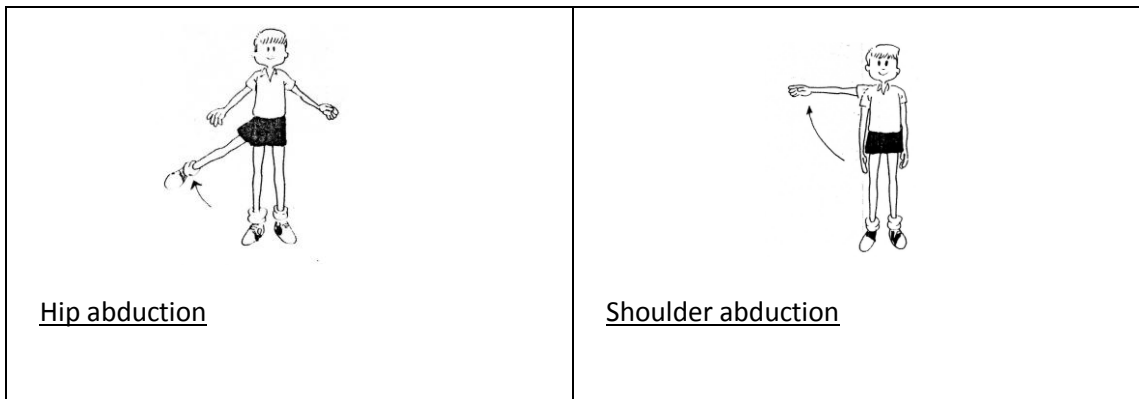
EXTENSION: The movement in which two body parts with common articulation extend away from each other.

Trunk extensionElbow extensionShoulder extensionHip extensionKnee extensionAnkle extension or Plantar flexion

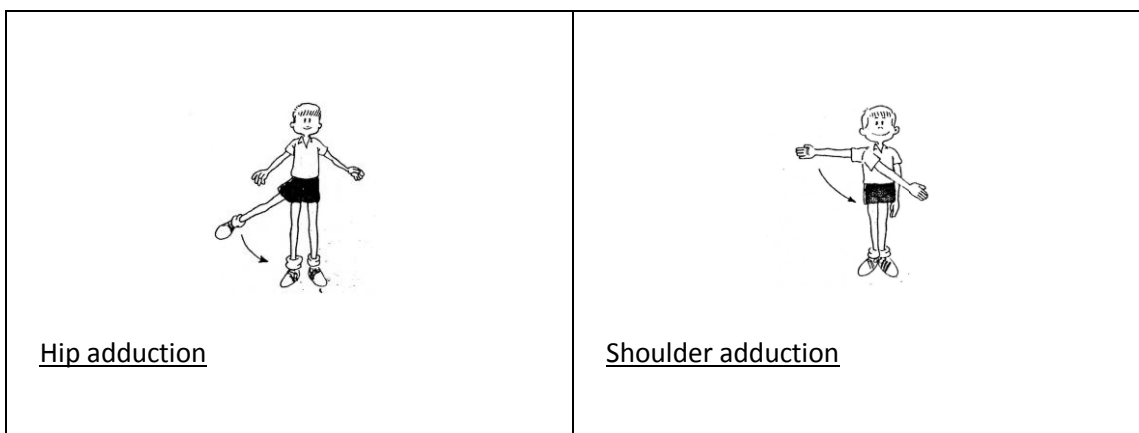
LATERAL FLEXION: The lateral movements of the torso and head in the frontal plane



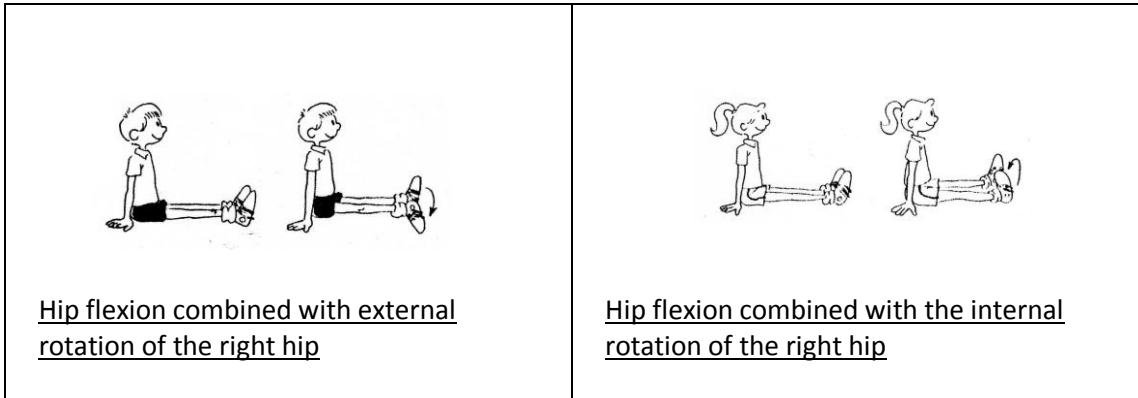
ABDUCTION (separation): The lateral movement of a body part away from the vertical axis of the torso



ADDUCTION (approximation): The lateral movement that pulls a body part toward the vertical axis of the torso

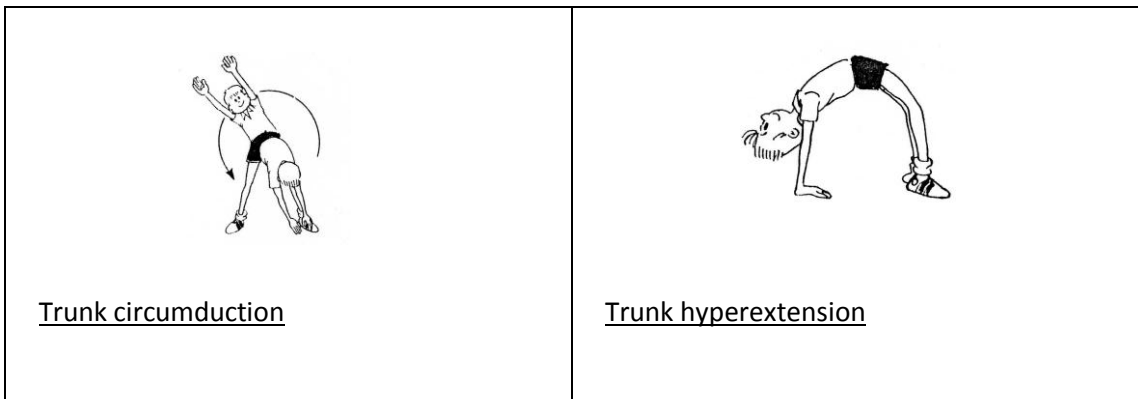


ROTATION: The movement in which a body part turns around its vertical axis



CIRCUMDUCTION: A movement in which the distal end of a limb describes a circle or arc while the proximal end remains stationary; a combination of flexion, extension, abduction, and adduction

HYPEREXTENSION: The extension of a joint beyond its normal range of motion



UNIT 2. EL CALENTAMIENTO. THE WARM-UP

(Tomada de Francisco Javier Gordejo Cava . Web del I.E.S. Santa Lucía del Trampal (Alcuéscar –Cáceres-)

CONCEPTO: ¿Qué es el calentamiento? What's the warm-up part?

Es la parte inicial de cualquier sesión de actividad física, que tiene como objetivo la puesta en acción, progresiva, del organismo, preparándolo ante un esfuerzo posterior más intenso.



Foto: http://commons.wikimedia.org/wiki/File:Dynamic_Warm_Up.jpg by Albumen

English definition: (from Cambridge Learner's Dictionary)

warm up:

to do gentle exercises in order to prepare yourself for more energetic exercise

Objetiv: **What do we want to get?**

Physical preparation. To prepare the diifferent systems of the body and to avoid injuries.

Psychological preparation: To improve our attention, motivation and cocentration.

Sport preparation: To increase specific performance in our sport.

Physical and psychological preparation
Preparation to achieve a good performance

Important rules to follow to do a proper Warm UP

a. **Aproprate duration**

"Ni mucho, ni poco", aproximadamente un 12-15% de la duración total de la sesión, aunque hay duraciones concretas según la actividad que vayamos a realizar. En general para una sesión de acondicionamiento físico de 1 hora de duración total: 10'-12' aproximadamente

b. **Progression:** la intensidad y dificultad del calentamiento debe ser progresiva: de lo

suave, moderado, a lo más intenso; y de lo fácil a lo difícil

- b. **Type of activities:** desplazamientos diversos (correr adelante, atrás, lateral), ejercicios de movilidad para las diferentes articulaciones (tobillos, rodillas, caderas, etc..), estiramientos, juegos diversos, ejercicios de técnica deportiva (ejemplo para baloncesto: bote, tiro a canasta, entradas, etc..)
- c. **Order** :en los ejercicios: de abajo hacia arriba o viceversa
- d. **Variety:** en cuanto a los ejercicios que realice y a las zonas que trabaje.

Basic Structure of the warm-p

Fase I. Step I. aerobic activation: desplazamientos para entrar en calor e incrementar la frecuencia cardíaca y respiratoria, combinados con ejercicios de fuerza.


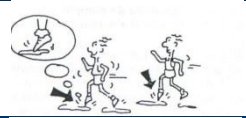

Fase II. Step II. Joint Mobility: ejercicios de movilidad articular (estáticos o en desplazamiento)


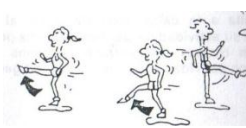










Fase III. Step III. Stretching: desplazamientos para entrar en calor e incrementar la frecuencia cardíaca y respiratoria, combinados con ejercicios de fuerza.



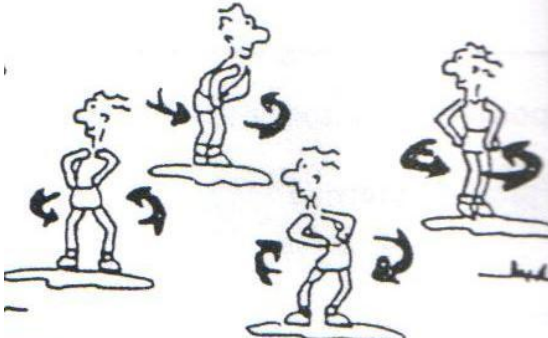

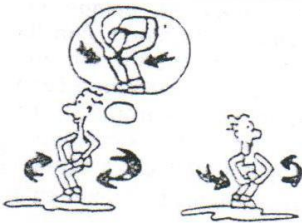
I have done a good warm up if...

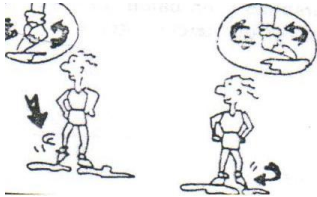
- * I'm beginning to sweat.
- * My heart rate is between 100 and 120 beats per minute (b.p.m.).
- * I've done a variety of exercises, with all the parts of the body.








Example of the General Warm-Up

ACTIVITY	DRAWING
A. ACTIVIDAD AERÓBICA. AEROBIC ACTIVITY	The first part of a warm up should contains aerobics exercises in order to activate our heart and lounges
1. Walk around quickly	
2. Walk on tiptoe	
3. Walk on your heels	

4. Walk lifting your knees trying to touch your chest.	
5. Walk extending your leg forwards (in front of you).	
6. Walk lifting your leg at your side.	
7. Walk extending your leg backwards.	
8. Walk rotating your trunk from side to side.	
9. Walk opening and closing your arms.	
10. Walk with long strides	
11. Run slowly	
12. Run forwards lifting your knees	
13. Run backwards lifting your heels and touching them with your hands.	
14.. Run and jump upwards (vertically)	
15. Run forwards and backwards.	
16. Run changing your rhythm: quickly, slowly...	

<p>B. MOVILIDAD ARTICULAR. JOINT MOBILITY</p> <p>1. MOVILIDAD DEL CUELLO. NECK MOBILITY</p> <p>Initial position: Standing up, With open legs and your hands in your waist.</p> <ol style="list-style-type: none"> First, make flexions and extensions of your neck trying to touch your chest with your chin Now, in the same position, make neck's lateral flexions touching your shoulder with your ears. Then, in the same position, make neck's rotation touching your shoulder with your chin. Finally, In the same position, make neck's circumductions only half of the range. 	
<p>2. MOVILIDAD DE LOS HOMBROS. SHOULDER MOBILITY</p> <p>Initial position: Standing up, with open legs.</p> <ol style="list-style-type: none"> First, make Flexions and extension alternatively. Continue, making Lateral flexions crossing your arms in front and behind you. Now, we make Circumductions with both hands simultaneously forward an backwards. Then, we make Circumductions with both hands alternatively forward an backwards. Finally, we end making circumductions with one hand forward and the other backwards. 	
<p>3. MOVILIDAD DEL TRONCO. TRUNK MOBILITY</p> <p>Initial position: Standing up, with open legs and your hands clasped behind your head.</p> <ol style="list-style-type: none"> Make Flexions and extensions forward and backwards. Now, Make Lateral flexions trying to touch your leg with your elbows. Afterwards, Make Rotations from side to side. Finally, make Circumductions with amplitude. 	
<p>4. MOVILIDAD DE LA. HIPS MOBILITY</p> <p>Initial position: Standing up, holding our knees with our hands.</p> <ol style="list-style-type: none"> First, we make flexions and extensión forwards and backwards first with one leg and, then, with the other. Now, we make lateral flexion from side to side, first with one leg and, then, with the other. Finally, with our hands in our hips, make cirdumductions with amplitude changing the direction. 	
<p>5. MOVILIDAD DE LAS. KNEES MOBILITY</p> <p>Initial position: Standing up, holding our knees with our hands.</p> <ol style="list-style-type: none"> First, we make flexions and extensión upwards and downwards. Finally, in the same position, make circumductions changing the direction. 	

<p>MOVILIDAD DE LOS TOBILLOS. ANKLES MOBILITY</p> <p>Initial position: Standing up, holding our hips with our hands.</p> <ol style="list-style-type: none"> First, we make flexion and extensión upwards and downwards. Then, make lateral flexions inwards and outwards. Finally, make circumductions inwards and outwards. 	
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<p>ESTIRAMIENTOS. STRETCHING</p> <p>Initial position: Standing up, holding our elbow with the other hands.</p> <ol style="list-style-type: none"> We stretch the back of our shoulders pulling our elbow backwards. 	
<p>Initial position: Standing up, with our hands clasped.</p> <ol style="list-style-type: none"> We stretch the back of our shoulders and chest lifting our hands upwards 	
<p>Initial position: Standing up, with one hand in our waist and the other up.</p> <ol style="list-style-type: none"> We bend our trunk sideways changing the direction. 	
<p>Initial position: Sitting on the floor, with legs extended together and holding the ankles with our hands.</p> <ol style="list-style-type: none"> We stretch our hamstrings pulling our trunk forward. 	
<p>Initial position: With our forearm supported on the wall, one foot forward and the other extended backward.</p> <ol style="list-style-type: none"> We stretch our hamstrings pushing our hip to the wall. 	
<p>Initial position: With one leg extended sideways and the other flexed.</p> <ol style="list-style-type: none"> We stretch our adductors descending the knee flexed. 	
<p>Initial position: With our forearm supported on the wall, one leg extended and the other flexed holding the tip toe with one hand.</p> <ol style="list-style-type: none"> We stretch our cuadriceps pulling the foot upward. 	

UNIT 3. COMPROBANDO TU CONDICIÓN FÍSICA. CHECKING YOUR FITNESS

At this first part of the school year, you are going to measure your fitness by doing some fitness tests. Eventually you will check the result against other marks of children who have similar age to you, and of course, you will check them with the results of your classmates.

Now, here are the fitness tests you will make to check your fitness at the beginning of the year:

TEST DE COOPER DE CARRERA DE 12 MINUTOS. COOPER 12 MINUTES RUN TEST

This is an aerobic endurance test.

Purpose: To measure the body's ability to use oxygen while running.

Description: Run around for 12 minutes. The amount of laps you have run is recorded. Walking is allowed, although the participants must run all of the time if they can.

BROAD JUMP TEST

Purpose: To measure the explosive power of the legs.

Description: Standing behind a line marked on the ground with feet slightly apart, swinging the arms and bending the knees, jump forward as far as possible.

Don't move the feet before taking off (jumping).

Landing on one foot or both feet is allowed.

Only two attempts are allowed and the best mark is recorded.

SIT-UPS TEST

Purpose: To measure the function of the abdominals muscles.

Description: Lying facing up with hands crossed on your chest, and the soles of both feet on the floor, sit-up as many times as you can until 30 seconds go by. The amount of sit-ups you complete is your test mark.

SIT AND REACH TEST

Purpose: To measure the flexibility of the lower back and hamstring muscles.

Description: Sit on the floor with your legs pointing straight out in front of you. Feet (shoes off) are placed with their soles flat against the box, shoulder-width apart. With hands on the top and palms facing down reach forward along the measuring line as far as possible. Do this twice and then, reach, at least, two seconds while the distance is recorded.

Keep your legs straight all the time.

AGILITY TEST

Purpose: To measure the agility of your body while running and turning quickly.

Description: In a place separated by two 5 meters lines, run forwards and back as quick as you can. Do this 10 times.

TAPPING TEST

Purpose: To measure the speed of your arms.

Description: Place your dominant hand over one circle, and put the other hand in the center of the tape. At the signal "GO", move the dominant hand to touch the opposite circle and then back again. Do this 25 times. The time you take, is your mark.

UNIT 4. CUALIDADES FÍSICAS BÁSICAS. COMPONENTS OF PHYSICAL FITNESS

(Tomada de Francisco Javier Gordejo Cava . Web del I.E.S. Santa Lucía del Trampal (Alcuéscar –Cáceres-)

1. INTRODUCCIÓN

Las cualidades físicas básicas son las capacidades que nos permiten: aguantar durante cierto tiempo realizando una actividad (R), oponerme a una resistencia (FZA), realizar movimientos amplios (FLX), o realizar movimientos rápidos (VEL).

El rendimiento en las diferentes actividades físicas viene determinado, entre otros factores, por las cualidades físicas básicas. Éstas son:

<i>STRENGTH</i>	<i>ENDURANCE</i>	<i>SPEED</i>	<i>FLEXIBILITY</i>
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Prácticamente todos los deportes necesitan, en cierta medida, cada una de estas cualidades

2. DEFINICIONES Y EJEMPLOS

STRENGTH: is the amount of force a muscle can exert against a resistance. It helps sportspeople to hit, tackle and throw.

Ejemplos de acciones en las que la fuerza es muy importante:

- ✗ Levantar una carga
- ✗ Subir 20 escaleras
- ✗ Retener una carga, sin que caiga al suelo
- ✗ Lanzar un balón medicinal



Deportes en los que predomina la fuerza:

- ✗ Halterofilia / Weightlifting
- ✗ Lanzamiento de peso / Shot put
- ✗ Salto de altura / High jump

SPEED: is the differential rate at which an individual is able to perform a movement or cover a distance in a period of time or how quickly an individual can move. This helps all games players to move into position or get away from opponents quickly.

Ejemplos de acciones en las que la velocidad es muy importante:

- ✗ Hacer un pase rápido a un compañero desmarcado / Quick passes
- ✗ Correr una distancia corta lo más rápido posible / Running a short distance as fast as you can
- ✗ Reaccionar ante un pitido lo más rápido posible / React fastly when the whistle sounds

Deportes en los que predomina la velocidad:

- ✗ Especialidades de "sprint": atletismo, natación, ciclismo
- ✗ 100m hurdles, relay 4 x 100m, 50m crawl, sprint at the end of the stage in cycling
- ✗ Deportes de equipo: acciones rápidas y coordinadas
- ✗ Fast coordinated movements



FLEXIBILITY: is the range of movement possible at a joint. It helps performers to stretch and reach further.

Ejemplos de acciones en las que la flexibilidad es muy importante: colocarse en posición de “spagat” (apertura máxima de piernas en el suelo), subir el pie lo más alto posible con la pierna extendida, hacer el puente, etc.,

Deportes en los que es muy importante la flexibilidad:

- ✗ Gimnasia Rítmica / Rhythmic gymnastics
- ✗ Gimnasia Deportiva masculina y femenina / Artistic gymnastics (men and women)
- ✗ Patinaje artístico / Artistic skating or figure skating



ENDURANCE: is the ability to exercise the whole body for long periods of time and is sometimes called stamina.

Ejemplos de acciones en las que la resistencia es muy importante:

Acciones muy prolongadas: andar desde mi casa hasta la piscina -varios kms-, aguantar un par de horas cargando cajas en un camión, etc.,

Deportes en los que es muy importante la resistencia:

- ✗ Ciclismo en ruta, especialidades de fondo -atletismo, natación, remo, piragüismo- / road cycling, running, swimming, rowing, and canoeing (long distances)



3. LAS CUALIDADES FÍSICAS Y LA SALUD

Un desarrollo adecuado de las cualidades físicas trae consigo numerosos beneficios para nuestra salud. Vamos a ver algunos:

ENDURANCE

Blood circulation and heart work is better. You prevent cardiovascular diseases

STRENGTH

Strength training improves the resistance of your bones so it prevents injuries.

SPEED

The nervous system works intensively so it remains younger

FLEXIBILITY

Prevention of joint and muscular injuries

UNIT 5. BODY PARTS

El aparato locomotor está compuesto por huesos, articulaciones y músculos.

1. EL ESQUELETO

El **esqueleto** es un conjunto de órganos de color blanco-amarillento, duros y resistentes llamados huesos, que unidos entre sí por las articulaciones y soportados por los ligamentos, forman unas veces cavidades para sostener y proteger órganos delicados del cuerpo, y otras sirven como punto de apoyo para los músculos, constituyendo así la **parte pasiva del Aparato Locomotor**.

Puede considerarse formado por los siguientes huesos: **la columna vertebral**, constituida por una serie de huesos superpuestos, las vértebras, que forman el eje vertical del cuerpo y situada en la línea media del mismo. En esta columna se distinguen cinco regiones perfectamente delimitadas y denominadas de arriba abajo: **Cervical, Dorsal, Lumbar, Sacra y Coxígea**.

En la parte superior de la región Cervical se acoplan una serie de huesos que forman una cavidad donde se aloja la masa encefálica, que se denomina **cráneo**. En la parte anterior de éste se observa un conglomerado de huesos que constituyen la cara.

En las 12 vértebras de la región Dorsal se apoyan 24 arcos óseos (**costillas**), doce por cada lado, que uniéndose por delante con el **esternón** forman el **tórax**, cavidad donde se alojan los pulmones y el corazón

En la parte superior del tórax, y a cada lado del mismo se unen dos huesos, la **clavícula**, el **omóplato** que constituyen el **hombro**, primera parte de las **extremidades superiores**, siguiendo a continuación **brazo, antebrazo y mano**.

En la región Sacra se acoplan las extremidades inferiores a través de un hueso por cada una de ellas, que se denomina coxal y que constituye la cadera, siguiendo a continuación el **muslo**, la **pierna** y el **pie**.

2. LAS ARTICULACIONES

Las articulaciones son un conjunto de elementos del Aparato Locomotor que unen dos o más extremos óseos. Vamos a ver las articulaciones más importantes. De cada una de ellas veremos los huesos que la componen.

Extremidad inferior

- ☐ Cadera: Une el Fémur con el Coxal
- ☐ Rodilla: Une el Fémur con la Tibia y la Rótula.
- ☐ Tobillo: Une la Tibia y el Peroné con el Tarso.

Extremidad superior

- ☐ Hombro: Une el Húmero, el Omoplato y la Clavícula
- ☐ Codo: Húmero, Cúbito y Radio.

- ☐ Muñeca: Cúbito, Radio y Carpo.

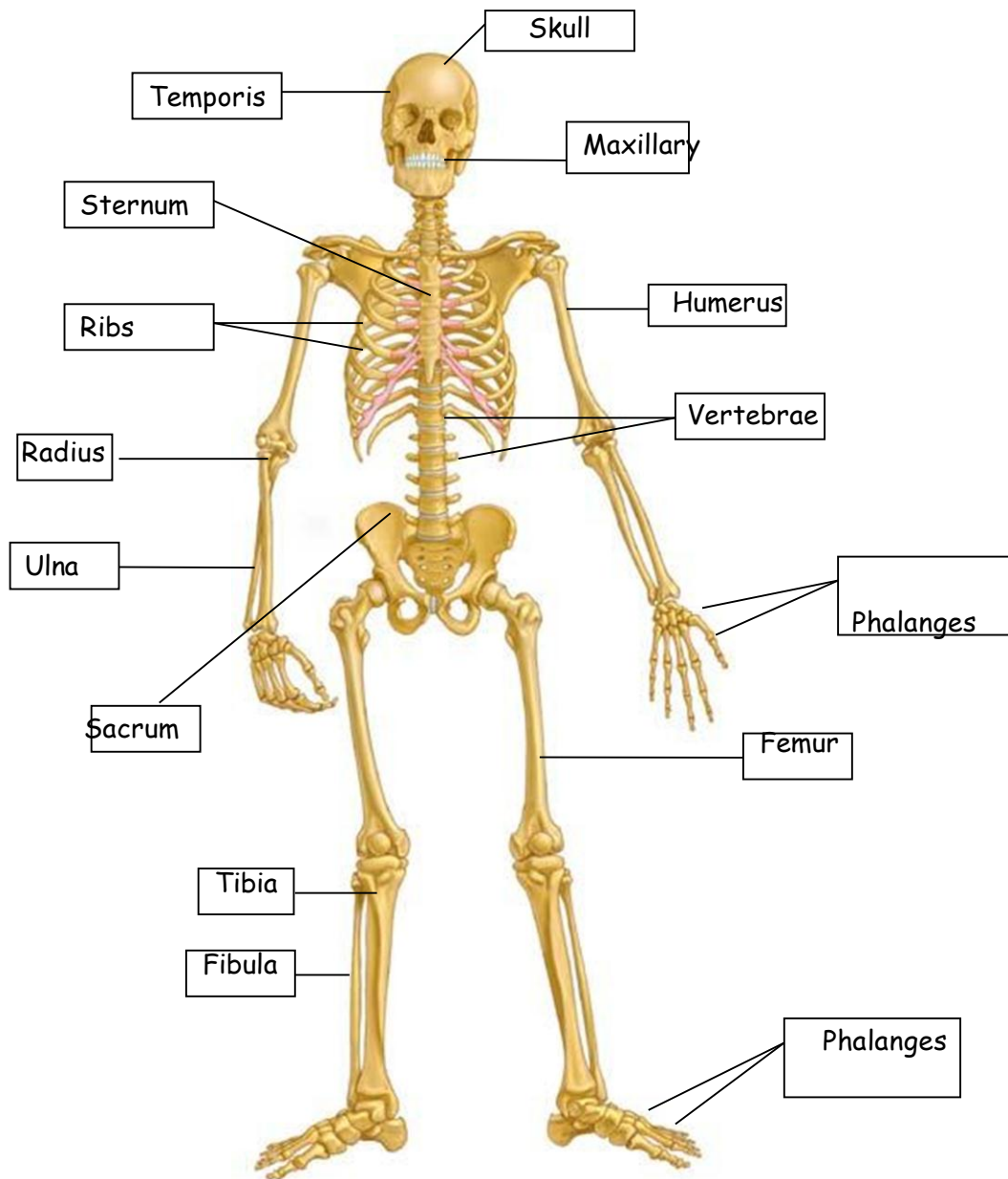
3. LOS MÚSCULOS

La parte del aparato locomotor que nos permite realizar movimientos es el sistema muscular. El número aproximado de músculos que poseemos es de 696.

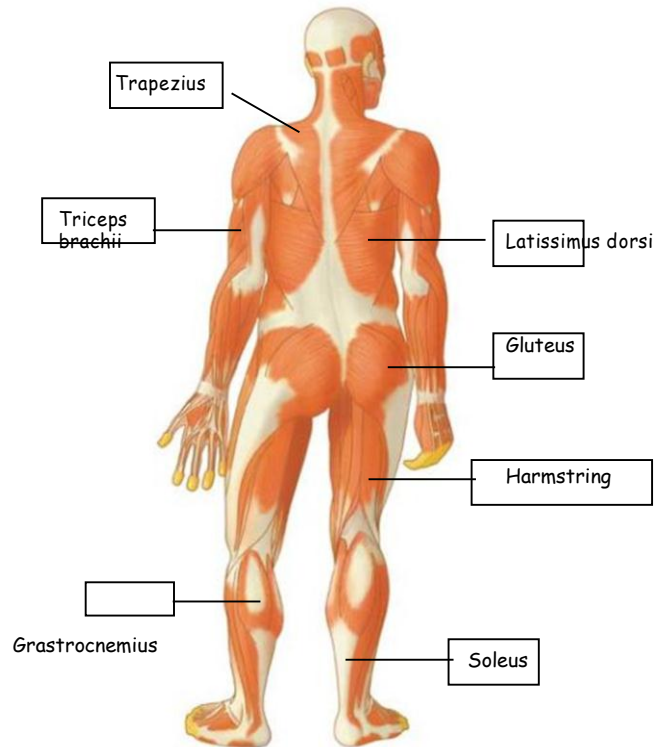
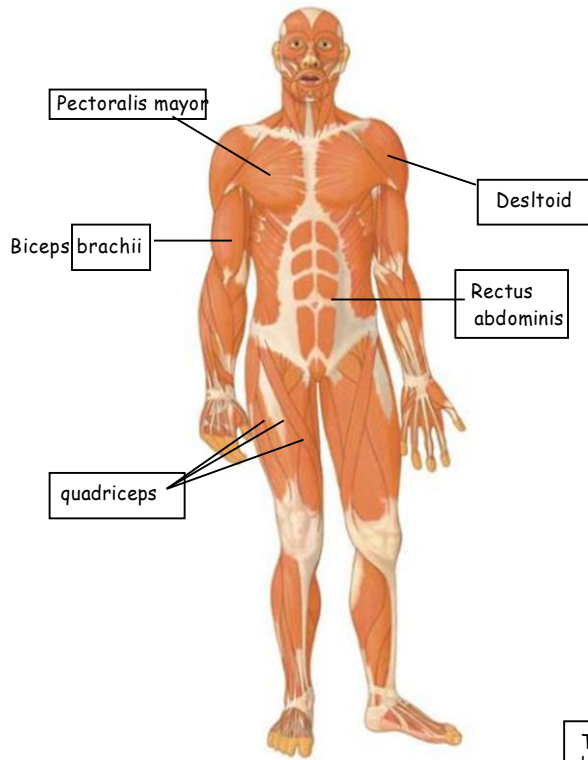
La misión de los músculos es:

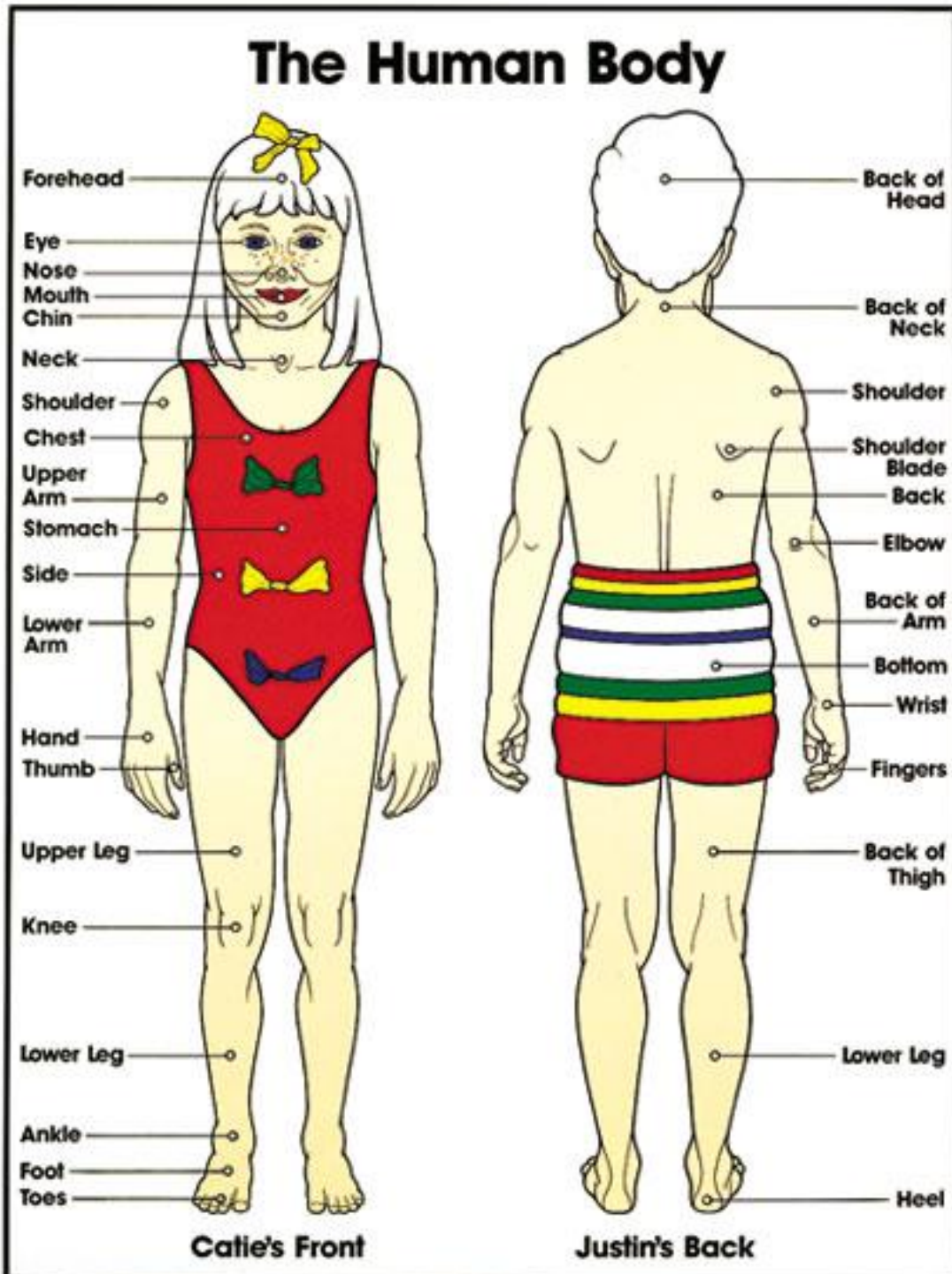
- ☐ Producir movimientos de desplazamiento del cuerpo humano.
- ☐ Realizar los gestos que sirven para la expresión del cuerpo o de los sentimientos.
- ☐ Adoptar posiciones del cuerpo en reposo.

ELESQUELETO



LOSMÚSCULOS







UNIT 5. MUSCLES, BONES AND MOVEMENTS

1. *OBJETIVES.*

- To know the meaning of origin and insertion of a variety of muscles
- To understand the different muscular movements
- To be able to develop a mind map on joints and movements.

2. *The origin and Insertion.*

The Origin and Insertion

- When a muscle contracts, only one bone moves leaving the other stationary. The points at which the tendons are attached to the bone are known as the **origin** and the **insertion**.
- The **origin** is where the tendon of the muscle joins the **stationary** bone(s).
- The **insertion** is where the tendon of the muscle joins the **moving** bone(s).



The arm is being flexed.

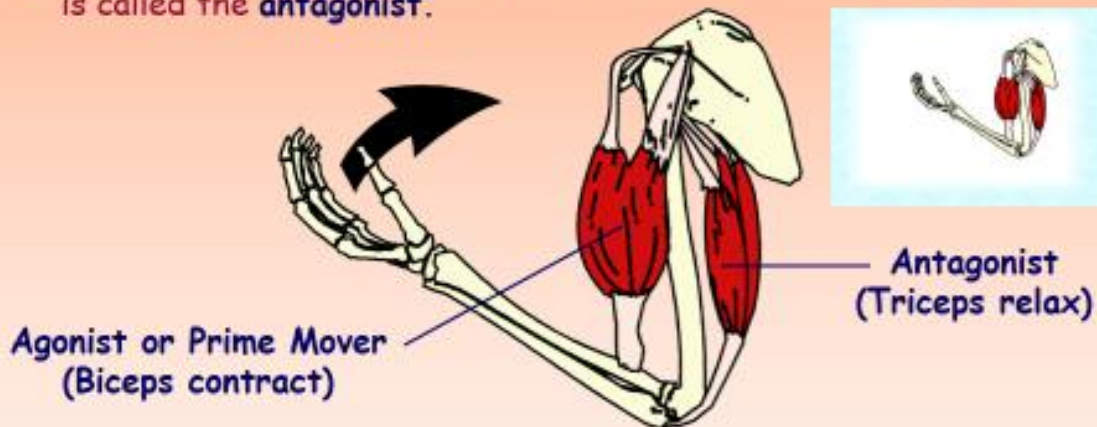
The **radius** and **ulna** are the moving bones- **INSERTION**

The **humerus** and **scapular** are **stationary** bones- **ORIGIN**

3. Antagonistic Muscles

Flexion (Bending) of the Arm

- The muscle doing the work (contracting) and creating the movement is called the **agonist or prime mover**.
- The muscle which is relaxing and letting the movement take place is called the **antagonist**.



- **Fixtor**-the muscle that allows the agonist to work, stabilising the origin.

Antagonistic Muscles

- Skeletal muscles work across a **joint** and are attached to the bones by strong cords known as **tendons**.
- They work in **pairs**, each **contracting** or **relaxing** in turn to create movement.
- E.g Biceps brachii and triceps brachii = known as **ANTAGONISTIC MUSCLE ACTION**.

AS one muscle shortens the other one lengthens.

Movement of the arm
at the elbow



WRIST EXTENSORS AND FLEXORS

Movement: Flexion and Extension

Origin: Humerus, radius, ulna

Insertion: Carpels, Metacarpels, Phalanges

Strengthening exercises; Wrist curls, Reverse wrist curls



Elbow joint

Radioulnar joint

Movement: Supination and Pronation

Insertion: Radius

Origin: Humerus and ulna



Strengthening exercises;
Dumb bell curls (downward and upward)

Shoulder joint

MOVEMENT- Extension of the shoulder

ORIGIN- Skull and thoracic spine

INSERTION- Clavicle and Scapula

STRENGTHENING EXERCISE: Seated rows

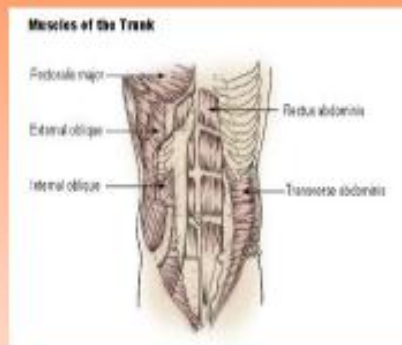


RECTUS ABDOMINIS

Flexion of the spine

ORIGIN: Pelvis

INSERTION: Sternum and ribs



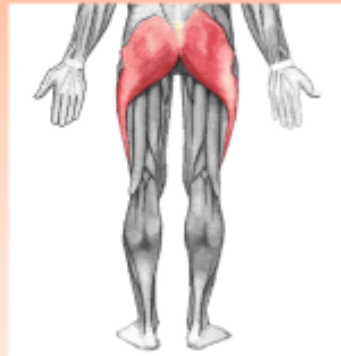
STRENGTHENING EXERCISE: Crunches

GLUTEUS MAXIMUS

MOVEMENT: Extension and rotation of the hip

ORIGIN: Pelvis, sacrum and coccyx

INSERTION: Femur



Strengthening exercises; Bent knee hip extensions

HIP

Movement: Abduction, rotation

Muscles: Gluteus medius and minimus

Origin: Pelvis

Insertion: Femur

Strengthening exercises; Floor hip abductions



KNEE

Movement: Flexion, extension

Muscles: Hamstring

Origin: Pelvis, Femur

Insertion: Tibia and Fibula

Strengthening exercises; Leg curls



Knee

Movement: Flexion, extension

Muscles: Quadriceps

Origin: Pelvis, Femur

Insertion: Tibia

Strengthening exercises; squats



Ankle

Movement: Dorsiflexion

Muscles: Tibialis anterior

Origin: Tibia

Insertion: Tarsals and metatarsals

Strengthening exercises; one leg
toes raises



Ejercicio muy útil online:

http://www.wisc-online.com/objects/index_tj.asp?objID=AP12004

UNIT 7. Composición corporal. Body Composition

In some activities being a certain shape or size can be important. For example in basketball players tend to be tall, whilst gymnasts tend to be small, light and muscular. One method of describing body shapes is called SOMATOTYPING. It was developed by an American called Sheldon. He identified 3 body shapes.

Ectomorph

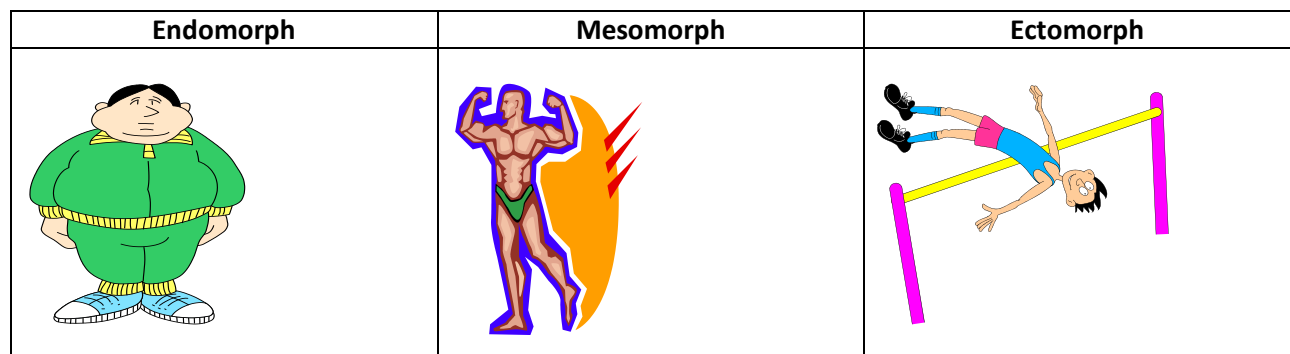
- Very thin and lean
- Narrow shoulders, hips and chest
- Not much fat or [muscle](#)
- Long arms and legs
- Thin face and high forehead

Endomorph

- Large body frame
- High percentage of body fat
- Wide hips but narrow shoulders
- Ankles and wrists tend to be slim

Mesomorph

- Muscular physique
- Wide shoulders and narrow hips
- Strong arms and legs
- Very little body fat



UNIT 5. Métodos de entrenamiento. Training Methods

During the next few weeks we are going to practice a variety of ways of training to improve your and Health and Fitness. These are known as Methods of Training.

Last year we practiced some of them like Continuous Training, Fartlek and Interval training. These method wanted to increase our endurance level mainly.

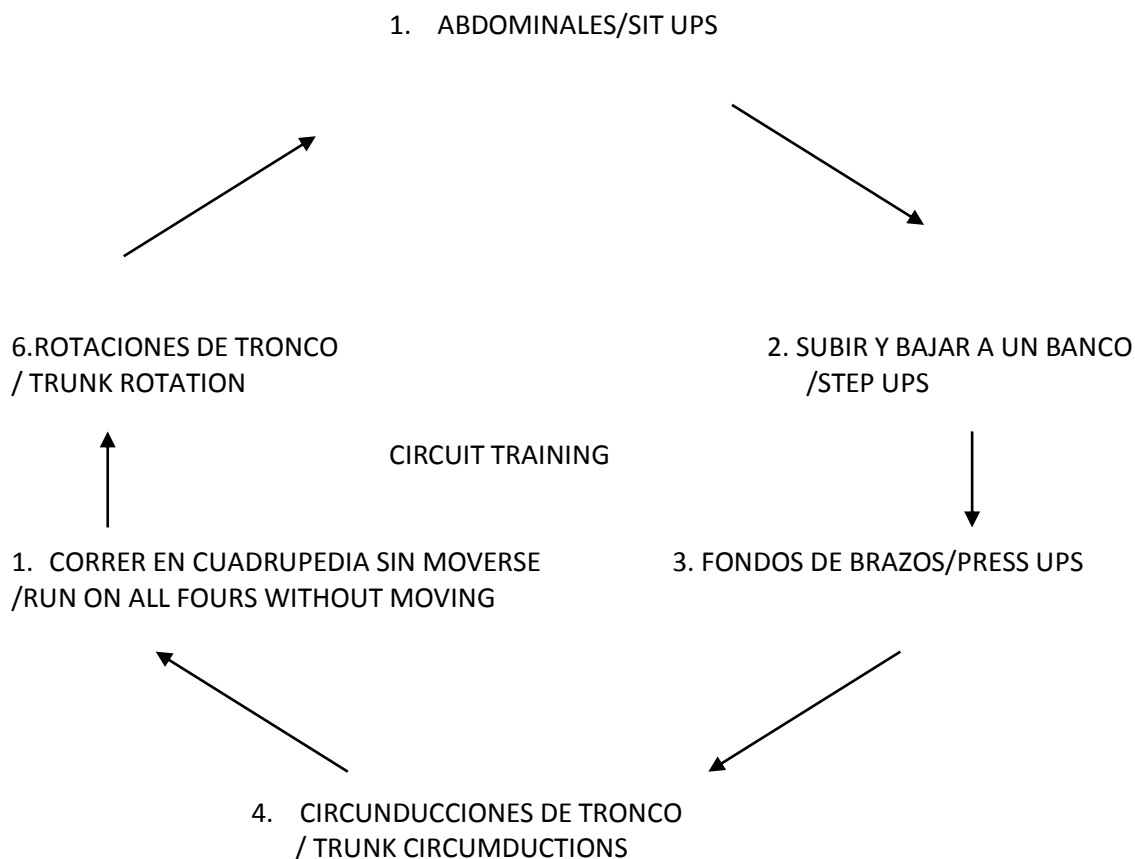
This year were are going to focus our attention in the method to develop our strength and flexibility

CIRCUIT TRAINING

Today we will look at a method of training called *Circuit training*.
Circuit training involves doing at least 6 different *exercises* at stations.
Circuit training can be used to improve our:-

- Aerobic fitness - i.e. lots of repetitions
- Anaerobic fitness - i.e. fast work
- Strength

This is an example of a circuit training session.



FLEXIBILITY METHODS

We have three different ways to carry out the Stretching

1. Active Stretching - You do the stretch on your own without bouncing.
2. Passive stretching - You or your partner holds the stretch for you without applying too much force.
3. Dynamic stretching - You do the stretch actively. Muscles that are stretched will become stronger

UNIT 6. IMPROVING STRENGTH AND FLEXIBILITY

CIRCUIT TRAINING				
INTRODUCTION	Explicaremos: ✓ Explicaremos en español y en inglés el método de entrenamiento Circuit training			
LANGUAGE OUTCOMES	✓ Los alumnos dirán en inglés cuál es la capacidad física involucrada fundamentalmente en cada deporte ✓ Los alumnos dirán un deporte en inglés donde predomine determinada cualidad física			
LANGUAGE	COMUNICACION	✓ You have to... ✓ You can't		
	NEW VOCABULARY	✓ Press ups ✓ Pull ups ✓ Sit ups ✓ Bench ✓ Landing Mat ✓ Safety Mat	✓ Rim ✓ Rope ✓ Bench ✓ Cone ✓ Pommel horse ✓ Box ✓ Hoop	✓ Floor ✓ Field ✓ Gym ✓ Wistle ✓ Bar ✓ Hurdle ✓ Bench
HOMEWORK	MAKE SENTENCES WITH THE LESSON VOCABULARY. LESSON 11			

SESION 16 y 17 IMPROVING FLEXIBILITY.				
INTRODUCTION	Explicaremos: ✓ Explicaremos en español y en inglés el método de entrenamiento Circuit training			
LANGUAGE OUTCOMES	✓ Los alumnos dirán en inglés cuál es la capacidad física involucrada fundamentalmente en cada deporte ✓ Los alumnos dirán un deporte en inglés donde predomine determinada cualidad física			
LANGUAGE	COMUNICACION	✓ What muscle are involved in this exercise? ✓		
	NEW VOCABULARY	✓ Biceps ✓ Deltoids ✓ Triceps ✓ Cuadriceps ✓ Abdominals ✓ Trapezius ✓ Pectoralis ✓ Biceps femoris ✓ Soleus ✓ Dorsalis	✓ To stretch ✓ To feel pain ✓ To reach ✓ To hurt ✓ To ache	
HOMEWORK	MAKE SENTENCES WITH THE LESSON VOCABULARY			

Ejercicios de estiramiento para mejorar la flexibilidad

Grupo muscular

Descripción del ejercicio



GEMELOS

Se coloca una pierna más adelantada y un poco flexionada. el tronco debe estar recto y un poco hacia adelante y los pies bien apoyados en el suelo y en línea recta.



SÓLEO

Se adelanta un poco una pierna y se flexionan ambas. el tronco debe estar recto y un poco hacia adelante y los pies en línea recta bien apoyados en el suelo.

Grupo muscular

Descripción del ejercicio



CUÁDRICEPS

Abrimos las piernas colocando una delante y otra detrás. Los puntos de apoyo deben ser el pie de la de adelante (rodilla flexionada) y la rodilla de la pierna trasera. elevamos el pie de esta última lo máximo posible hacia el glúteo ayudándonos con la mano.



ISQUIOTIBIALES

Elevamos una pierna y la mantenemos en un punto de apoyo. el tronco y los brazos se dirigen hacia el pie elevado. Tronco y piernas deben estar rectas.

5



ADUCTORES

Apertura de piernas con la máxima amplitud posible. tronco recto ya sea erguido o dirigido hacia el suelo.

8



RECTO ABDOMINAL

Tumbados boca abajo y elevamos el tronco teniendo como punto de apoyo los brazos rectos. La cadera y las piernas quedan apoyadas. tiramos del cuello hacia arriba.

6



GLÚTEOS

Nos sentamos en el suelo con las piernas rectas. Llevamos una pierna por encima de la otra, flexionándola, giramos el tronco hacia el sentido contrario de la pierna flexionada y apoyamos el codo en la rodilla flexionada ofreciendo resistencia.

9



OBLICUOS

Con las piernas un poco abiertas y el tronco erguido llevamos, lo llevamos hacia un lado y hacia el otro.

7



PSOAS ILÍACO

Colocamos una pierna hacia atrás tocando el suelo y la otra con la rodilla flexionada apoyando en el suelo la planta del pie. Llevamos el tronco hacia la rodilla flexionada sin levantar el pie del suelo.

10



CUADRADO LUMBAR

Sentado con una pierna estirada y la otra doblada con la rodilla pegada al suelo, llevamos el tronco hacia el lado de la pierna estirada.

11



DORSAL ANCHO

Con las piernas un poco abiertas, nos tocamos el omóplato con la mano contraria y con el brazo que queda libre tiramos de éste él. inclinamos el tronco hacia el mismo lado.

14



BÍCEPS BRAOUIAL

Con los brazos en cruz completamente rectos, tiramos de la punta de los dedos hacia el hombro y abrimos los brazos lo máximo posible.

12



PECTORAL

Apoyamos todo el antebrazo en una pared y giramos el tronco hacia fuera.

15



TRÍCEPS

Tocamos el omóplato con la mano y el codo lo situamos hacia arriba. tiramos con la otra mano del codo lo más abajo posible.

13



DELTOIDES

Pasamos un brazo hacia el hombro contrario y empujamos el codo con la mano libre.

16



MÚSCULOS FLEXORES DE LA MUÑECA Y LOS DEDOS

Brazo estirado con la palma hacia fuera. se tira de la mano hacia atrás.

17



MÚSCULOS EXTENSORES DE LA MUÑECA Y LOS DEDOS

Brazo estirado con la palma hacia dentro. Se tira de la mano hacia atrás

20



TRAPECIO

Llevar el cuello hacia un lado. Llevar la otra mano, por la espalda, hacia la cadera opuesta.

18



MÚSCULOS EXTENSORES DEL CUELLO

Llevar la cabeza hacia adelante intentando tocar con la barbilla en el pecho, ayudándonos con las manos.

21



ESPALDA

(musculatura cervical, dorsal y lumbar)

entre éstas.

19

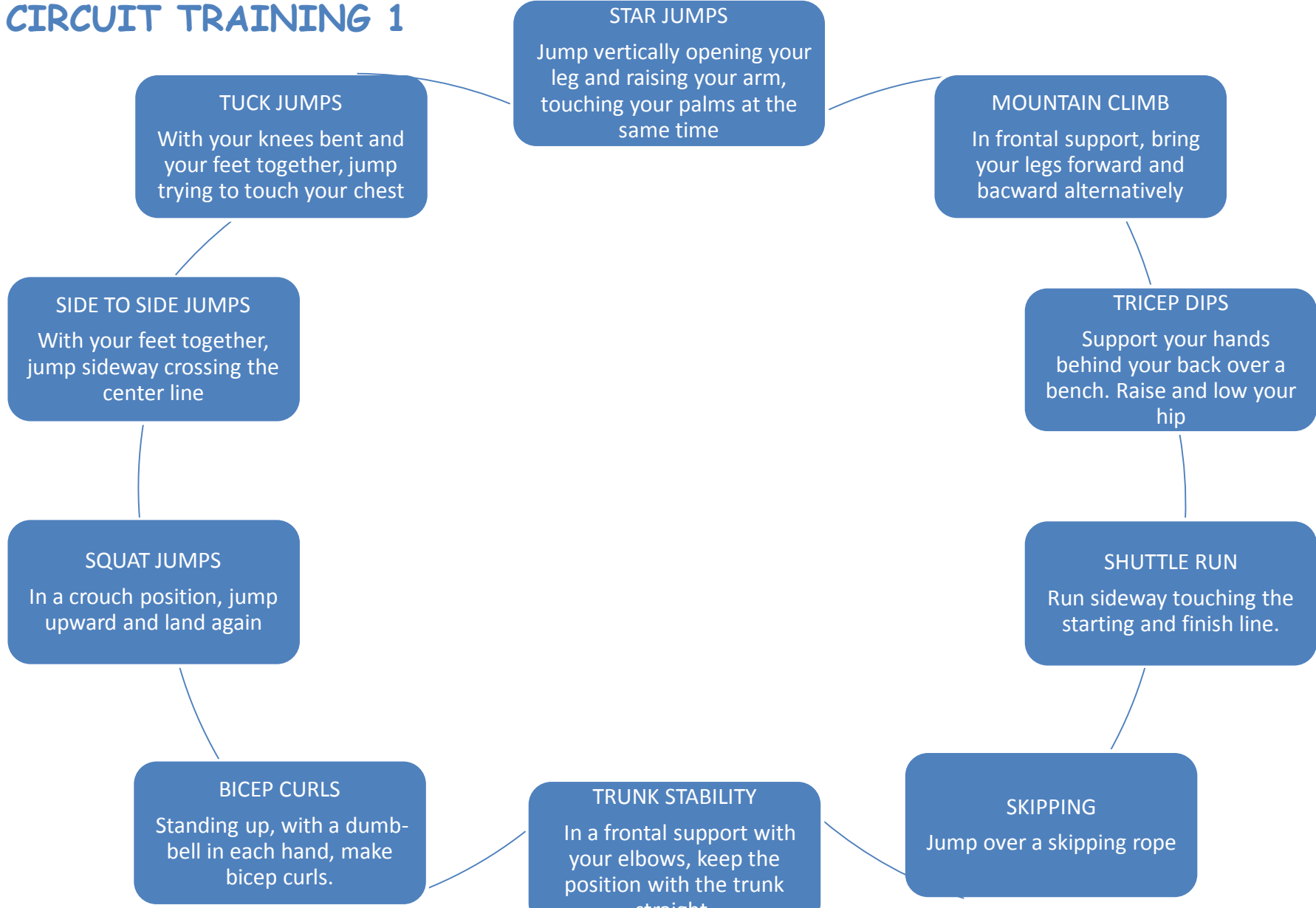


MÚSCULOS FLEXORES DEL CUELLO

Llevar la cabeza hacia atrás lo máximo posible. Doblar un poco las rodillas e intentar meter la cabeza

nota: para conseguir que el músculo se relaje y mejoremos su capacidad de estiramiento hay que esperar a que se produzca el reflejo miotático inverso, por tanto, aguantaremos como mínimo 12-15" en cada posición.

CIRCUIT TRAINING 1



GLOSSARY PHYSICAL EDUCATION FIRST TERM

ABDUCCION	ABDUCCIÓN
ABILITY	HABILIDAD
ADDUCTION	ADDUCCIÓN
ADDUCTOR	ADUCTOR
AEROBIC	AERÓBICO
AMOUNT	CANTIDAD
ANAEROBIC	ANAERÓBICO
ANKLE	TOBILLO
ARM	BRAZO
ATTEMPT	INTENTO
AVERAGE	PROMEDIO
BACK	ESPALDA
BALANCE	EQUILIBRIO
BEEP	PITIDO
BICEPS FEMORIS	BECEPS FERMORAL
BICEPS OF ARM	BICEPCS DEL BRAZO
BODY	CUERPO
BODY PARTS	PARTES DEL CUERPO
BONE	HUESO
BOUNCING	REBOTE
CALF	PANTORRILLA
CARDIOVASCULAR ENDURANCE	RESISTENCIA COARDIOVASCULAR
CAREFULLY	CUIDADOSAMENTE
CHEEK	MEJILLA

CHEST	PECHO
CHIN	BARBILLA
CHOICE	ELECCIÓN
CIRCUMDUCTION	CIRCUNDUCCIÓN
CLIMB	ESCALAR
CONE	CONO
CRAWL	GATEAR, ARRASTRARSE
DELTOID	DELTOIDES
EAR	OÍDO
ECTOMORPH	ECTOMÓRFICO
EFFORT	ESFUERZO
ELBOW	CODO
ENDOMORPH	ENDOMÓRFICO
EQUIPMENT	EQUIPAMIENTO
STATION	ESTACIÓN
EXERCISE	EJERCICIO
EXTENSION	EXTENSIÓN
EYE	OJO
FAST	RÁPIDO
FAT	GRASA, GORDO
FEET	PIES
FINGER	DEDO
FITNESS	APTITUD, ESTADO FÍSICO
FITNESS PROFILE	PERFIL DE APTITUD FÍSICA
FLEXIBILITY	FLEXIBILIDAD
FLEXION	FLEXIÓN
FOOT	PIE
FOREHEAD	FRENTE

GALLOP	AL GALOPE
GLUTEUS	GLÚTEO
GO ACROSS	CRUZAR
GO DOWN	BAJAR
GO ON ALL FOURS:	CUADRUPEDIA
GO OVER	REPASAR
GRADUALLY	GRADUALMENTE
GRASTROCNEMIUS	GEMELOS
GYM	GIMNASIO
HAND	MANO
HEAD	CABEZA
HEALTH	SALUD
HEART	CORAZÓN
HEIGHT	ALTURA
HIGHLIGHT	SUBRAYA
HIP	CADERA
INDEX FINGER	DEDO ÍNDICE
INJURY	LESIÓN
INTENSITY	INTENSIDAD
JOINTS	ARTICULACIONES
JUMP	SALTO
KNEE	RODILLA
LATERAL FLEXION	FLEXIÓN LATERAL
LATISSIMUS DORSI	DORSAL
LEG	PIERNA
LITTLE FINGER/PINKY	DEDO MEÑIQUE
LUNG	PULMÓN
MEDIUM FINGER	DEDO MEDIO

MESOMORPH	MESOMÓRFICO
METHOD OF TRAINING	MÉTODO DE ENTRENAMIENTO
MOVEMENT	MOVIMIENTO
MUSCLE	MÚSCULO
MUSCULAR ENDURANCE	RESISTENCIA MUSCULAR
NECK	CUELLO
NOSE	NARIZ
PALM	PALMA
PECTORALIS	PECTORAL
PECTORALIS MAJOR	PECTORAL MAYOR
PHYSICAL	FÍSICA
POSTURE	POSTURA
PRESS UPS	FLEXIONES DE BRAZOS EN EL SUELO
PULLS UPS	FLEXIONES DE BRAZOS EN BARRA
PULSE	PULSO
PURPOSE	PROPÓSITO
OXYGEN	OXÍGENO
RECTUS ABDOMINIS	RECTO ABDOMINAL
RECTUS FEMORIS	RECTO FEMORAL
REQUENCY	FRECUENCIA
RESTING RATE	TASA CARDÍACA DE RESPOSO
RESULT	RESULTADO
RING FINGER	DEDO CORAZÓN
ROTATION	ROTACIÓN
RULER	REGLA DE MEDIR
RUN	CORRER
SHAPE	FORMA
SHARP MOVEMENT	MOVIMIENTO VIOLENTO, RÁPIDO

SHOULDER	HOMBRO
SHUTTLE RUN	CARRERAS CON CAMBIOS DE DIRECCIÓN
SITS UPS	HACER ABDOMINALES
SKILL	HABILIDAD
SLOW	LENTO
SLOWLY	LENTAMENTE
SMOOTH	SUAVE
SOMATOTYPE	SOMATOTIPO
SPEED	VELOCIDAD
STEADY	ESTABLE
STEPS UPS	SUBIR Y BAJAR A UN ESCALÓN
STOPWATCH	CRONÓMETRO
STRENGTH	FUERZA
SUCCESSFUL	EXITOSO
SUPPLENESS	MOBILIDAD ARTICULAR
TAPE MEASURE	CINTA MÉTRICA
TEETH	DIENTES
THUMB	DEDO PULGAR
TIME	TIEMPO
TIMING	SINCRONIZACIÓN
TO ASSESS	EVALUAR
TO AVOID	EVITAR
TO BE FIT	ESTAR EN FORMA
TO BE UNFIT	NO ESTAR EN FORMA
TO BREATHE	RESPIRAR
TO CATCH	COGER
TO COMPLAIN	QUJARSE
TO COUNT	CONTAR

TO FILL	RELLENAR
TO HOLD A POSITION	MANTENER UNA POSICIÓN
TO HURT	DOLER
TO IMPROVE	MEJORAR
TO JOG	CORRER DESPACIO
TO JUMP	SALTAR
TO LIE	YACER EN EL SUELO
TO LIST	LISTAR
TO MEASURE	MEDIR
TO NAME	NOMBRAR
TO RAISE	LEVANTAR, ELEVAR
TO REACH	ALCANZAR
TO SLIDE	DESlizARSE
TO START	EMPEZAR
TO STRECHT	ESTIRAR
TO THROW	LANZAR
TO WALK	CAMINAR
TOE	DEDO DEL PIE
TRAINING ZONE	ZONA DE ENTRENAMIENTO
TRAPECIUS	TRAPECIO
TRESHOLD	UMBRAL
TRICEPS OF ARM	TRICEPS DEL BRAZO
TRUNK	TRONCO
UPPER	PARTE DE ARRIBA
WARM DOWN	VUELTA A LA CALMA
WARM UP	CALENTAMIENTO
WEIGHT	PESO
WRIST	MUÑECA

KEYWORDS

Aerobic activity: working with sufficient oxygen for the muscles

Aerobic activity: “with oxygen”. If exercise is steady and not too fast, the heart can supply all the oxygen the muscles need.

Agility: the ability to change the direction of the body quickly

Anaerobic activity: working without sufficient oxygen for the muscles

Anaerobic activity: “without oxygen”. If exercise is done in short fast bursts, the heart cannot supply blood and oxygen to the muscles as fast as the cells can use them

Balance: the ability to maintain equilibrium, whether stationary or moving.

Body composition: the weight of every part of your body including the bones, muscles, organs, tissue and skin.

Breathing rate: the number of breaths you take in a minute. The average number of breaths per minute is 16.

Cardiovascular endurance: the ability of our heart and lung system to cope with activity over a relatively long period of time.

Carotid pulse: this is the pulse found in your neck.

Components of Fitness (Health-related fitness): are the five basic factors which provide the level of fitness necessary for good health

Co-ordination: the ability to carry out a series of movements smoothly and efficiently.

Ectomorph: a person with a thin body, narrow shoulders, long thin arms and legs, with little or no body fat.

Effects of exercise: changes that occur in your body during an activity.

Endomorph: a person with pear shaped body, wide hips and narrow shoulders with large amounts of body fat.

Endurance: the ability to perform physical activity for long periods of time.

Fartlek: “speed play” – a method of training in which pace and training conditions are varied

FITT principles: Frequency, Intensity, Time, Type – the basis for planning a fitness programme

Flexibility: the range of movement possible at a joint.

Forced breathing: the increase in breaths per minute due to physical activity.

Gradual pulse raising: the first stage of a warm-up. It involves performing gentle exercise for example jogging.

Health: a state of mental, physical and social well-being.

Interval training: any training using alternate periods of hard exercise and rest.

Lactic acid: waste product produced in the working muscles.

Long term effects of exercise: changes that occur in your body after weeks and months of training.

Maximum heart rate: the highest possible rate at which your heart can function. It is calculated by $220 - \text{Age}$.

Mesomorph: a person with wide shoulders, narrow hips and strong muscular arms and legs.

Mobility work: The third stage of a warm-up. It involves the practice of movement skills you will use in the activity you are warming up for.

Muscular endurance: the ability to use voluntary muscles many times without getting tired.

Muscular power: ability to contract muscles with speed and strength in one explosive act; the combination of speed and strength.

Oxygen debt: the amount of oxygen consumed during recovery above that which would ordinarily been consumed in the same time at rest, resulting in a shortfall in the oxygen available.

Peaking: producing your best performance at the right time.

Performance: how well a task is completed.

Periodisation: dividing a training programme into different parts, for example pre-season, peak season and off-season.

Personal Exercise Programme (PEP): a programme of training drawn up for a particular sport and sportsperson.

Physical fitness: the ability of our body to carry out everyday activities with the minimum fatigue and with enough energy left over for emergencies.

Plyometrics: a training method using explosive movements to develop muscular power, for example bounding and hopping.

Progression: gradually increasing the amount of training or exercise you do.

Overload: making the body work harder than normal to improve fitness.

Radial pulse rate: this is the pulse found in your neck.

Recovery rates: length of time required for the cardiorespiratory system to return to normal after activity.

Resting pulse rate: the number of beats of the heart at rest. This is approximately 70 per minute.

Reversibility: loss of improvement when training is decreased or stopped.

Skill-related fitness: the level of physical fitness necessary for regular sporting activity.

Somatotyping: a method of describing body builds.

Specificity: the principle that training must closely resemble the sporting activity and tailored to an individual needs in order for improvement to take place.

Speed: ability of the body. or part of the body to move quickly

Speed of reaction (reaction time): the ability to respond quickly to a stimulus

SPORT-P principles: Specificity, Periodisation, Overload, Reversibility, Tedium, Peaking-principles on which to base a training programme.

Stamina: the ability to perform physical activity for long periods of time.

Strength: the extent to which the muscles exert a force against a resistance.

Stretching: The second stage of a warm-up. It involves placing tension on muscles to reduce the risk of injury during an activity.

Suppleness: the range of movement around a joint.

Tedium: the principle that training methods must be varied to prevent boredom and overuse injuries

Timing: ability to coincide movements in relation to external factors

Training threshold: minimum rate at which heart must work to bring about fitness improvements.

Training zone: range of heart rate within which a specific training effect will take place.

Warm down: to be carried out after the activity, it involves lighter exercise where you gradually slow down by jogging then walking.