



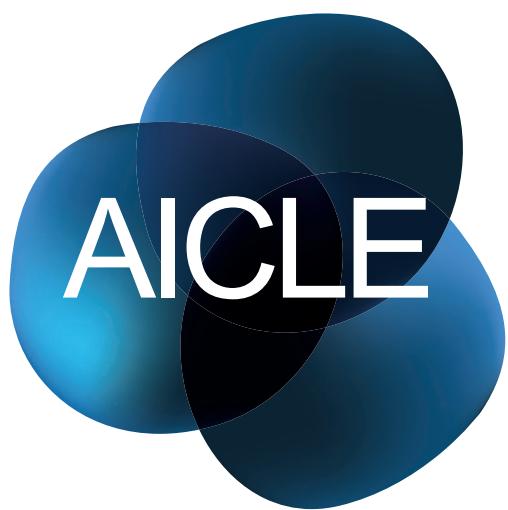
# Educación Física

Secundaria



JUNTA DE ANDALUCÍA

Inglés



## CONSEJERÍA DE EDUCACIÓN

Dirección General de Participación e Innovación Educativa

# Identificación del material AICLE

TÍTULO	The Human Body, Physical Activity and Health
NIVEL LINGÜÍSTICO SEGÚN MCER	A2
IDIOMA	Inglés
ÁREA / MATERIA	Educación Física
NÚCLEO TEMÁTICO	Condición física y salud, el cuerpo humano y la actividad física
GUIÓN TEMÁTICO	El cuerpo humano se adapta al entrenamiento con lo que habrá unos cambios. Para conocer, realizar y valorar los rasgos que definen una actividad física saludable es necesario tener un conocimiento del sistema óseo, muscular y articular del cuerpo humano. El calentamiento general y su significado en la práctica de la actividad física. Efectos, objetivos y fases del calentamiento. Por último la ficha de condición física individual recogerá los datos biométricos, la respuesta cardiaca al esfuerzo y los tests físicos.
FORMATO	Material didáctico en formato PDF
CORRESPONDENCIA CURRICULAR	2º de Educación Secundaria
AUTORÍA	José Ramón Arredondo Pérez
TEMPORALIZACIÓN APROXIMADA	6-8 sesiones.
COMPETENCIAS BÁSICAS	<ul style="list-style-type: none"><li>- Comunicación lingüística.</li><li>- Conocimiento e interacción con el medio físico y natural .</li><li>- Competencia para la autonomía e iniciativa personal.</li><li>- Competencia y actitudes para seguir aprendiendo de forma autónoma.</li><li>- Competencia social y ciudadana.</li></ul>
OBSERVACIONES	La última parte en relación a la ficha de condición física individual se realizará periódicamente durante todo el curso académico, lo cual conllevará más tiempo por la toma de datos que requiere.

# Tabla de programación AICLE

<b>OBJETIVOS</b>	<ul style="list-style-type: none"><li>- Conocer y aceptar el funcionamiento del propio cuerpo y el de los otros, respetar las diferencias, afianzar los hábitos de cuidado y salud corporales e incorporar la educación física y la práctica del deporte para favorecer el desarrollo personal y social</li><li>- Valorar críticamente los hábitos sociales relacionados con la salud contribuyendo a su conservación y mejora</li></ul>
<b>CONTENIDOS DE CURSO / CICLO</b>	<ul style="list-style-type: none"><li>- El cuerpo, actividad física y salud</li><li>- Capacidades físicas</li><li>- Actividad física y salud</li><li>- Atletismo II</li><li>- Actividades físicas recreativas, palas y hockey</li><li>- Voleibol</li><li>- Marcha, acampada y carrera de orientación</li></ul>
<b>TEMA</b>	<ul style="list-style-type: none"><li>- Relacionar conceptos y definiciones</li><li>- Clasificar movimientos articulares en el ejercicio físico</li><li>- Diferenciar los tipos de fibras</li><li>- Ejemplificar los tipos de articulaciones</li><li>- Elaborar un calentamiento</li></ul>
<b>MODELOS DISCURSIVOS</b>	<ul style="list-style-type: none"><li>- Relacionar los diferentes sistemas orgánicos que intervienen en el ejercicio físico</li><li>- Diferenciar los tipos de movimiento articular</li><li>- Relacionar los tipos huesos, articulaciones, músculos y de fibras musculares</li><li>- Situar el calentamiento en la sesión, efectos, fases, y propuesta de ejercicios</li><li>- Valorar la condición física</li></ul>
<b>TAREAS</b>	<ul style="list-style-type: none"><li>- Toma de pulsaciones</li><li>- Carreras. Técnicas de mejora</li><li>- Cuestionario sobre la atención a la higiene corporal después de la práctica de actividad física</li></ul>
<b>CONTENIDOS LINGÜÍSTICOS</b>	<p><b>FUNCIONES:</b></p> <ul style="list-style-type: none"><li>- Describir una ilustración</li><li>- Describir un proceso reflejado en un dibujo</li><li>- Definir conceptos técnicos</li></ul> <p><b>ESTRUCTURAS:</b></p> <ul style="list-style-type: none"><li>- Rotation is moving...</li><li>- As you can see...</li><li>- The picture shows...</li></ul> <p><b>LÉXICO:</b> Adaptation, volume, intensity, health, skeleton, rib, tibia, fibula, phalanges, vertebral column, cartilage, ligaments, tendons, joints, circunduction, muscles, fibres, trapezius, hamstring, deltoids, pectorals, gluteals, valves, fast-twitch, blood flow, stretches.</p>
<b>CRITERIOS DE EVALUACIÓN</b>	<ul style="list-style-type: none"><li>- Reconocer a través de la práctica, los diferentes elementos de los sistemas muscular, óseo y articular y tipos de movimiento articular para la salud, se evaluará si el alumnado diferencia los mismos. Posteriormente en cuanto a los procedimientos se analizará si los trasfiere a la actividad física</li><li>- Incrementar las cualidades físicas relacionadas con la salud trabajadas durante el curso respecto a su nivel inicial. Se pretende autoexigencia en su esfuerzo para mejorar los niveles de las cualidades físicas. Para la evaluación se deberá tener en cuenta, sobre todo, la mejora respecto a sus propios niveles iniciales y no sólo el resultado obtenido</li></ul>

# **UNIT**

# **1**

## **The Human Body, Physical Activity and Health**

### **CONTENTS**

- 1. The human body and physical activity**
- 2. The skeletal system**
- 3. Joints. Types of Joint Movements**
- 4. The Muscular System**
- 5. Organising a general warm-up**
- 6. Individual physical condition card**
  - BIOMETRIC INFORMATION
  - MEASURING YOUR HEART RATE AND RUFFIER TEST
  - THE RESULTS OF THE PHYSICAL CONDITION AND COORDINATION TESTS

# 1. The Human Body and Physical Activity

The human body



“The body adapts  
to training”

Physical activity

**REMEMBER:** Physical exercise needs to be controlled

The amount of  
exercise  
=  
Volume

Intensity of work  
=  
rhythm or  
percentage of  
effort

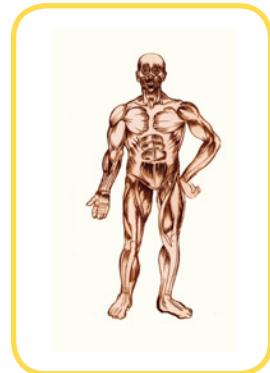
“Exercise makes your body change”

# SHEET 1:

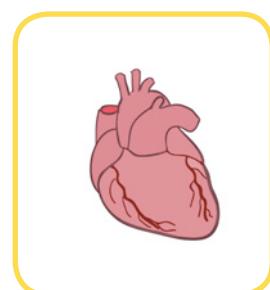


Match each body system to the corresponding picture.

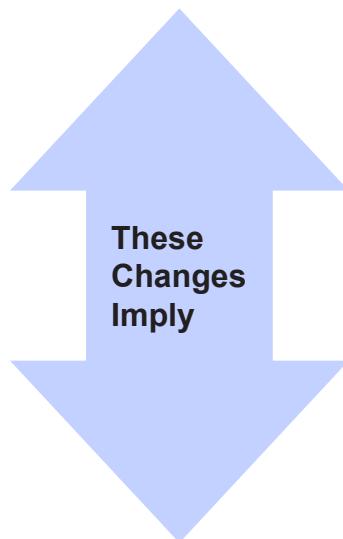
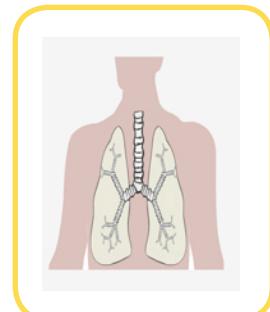
- Your **heart** and **circulatory system**?



- Your **chest** and **respiratory system**?



- Your **muscles, joints** and **nervous system**?



**PHYSICAL BENEFITS**

**REMEMBER:** Exercise helps you physically, mentally and socially = HEALTH

## SHEET 2:



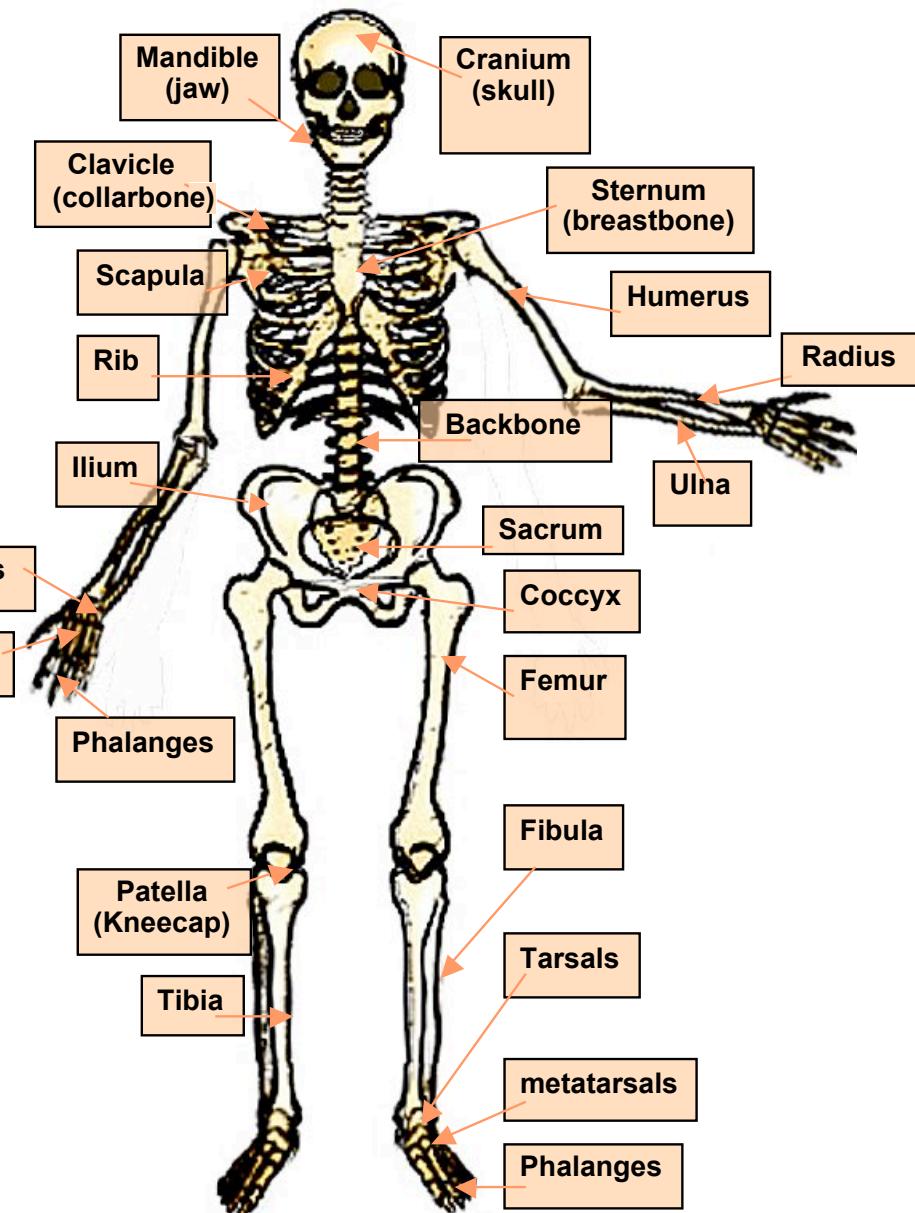
## 2. The skeletal system

(We also have a muscular system which will be explained later on, and the circulatory and respiratory system, which will be studied next year).

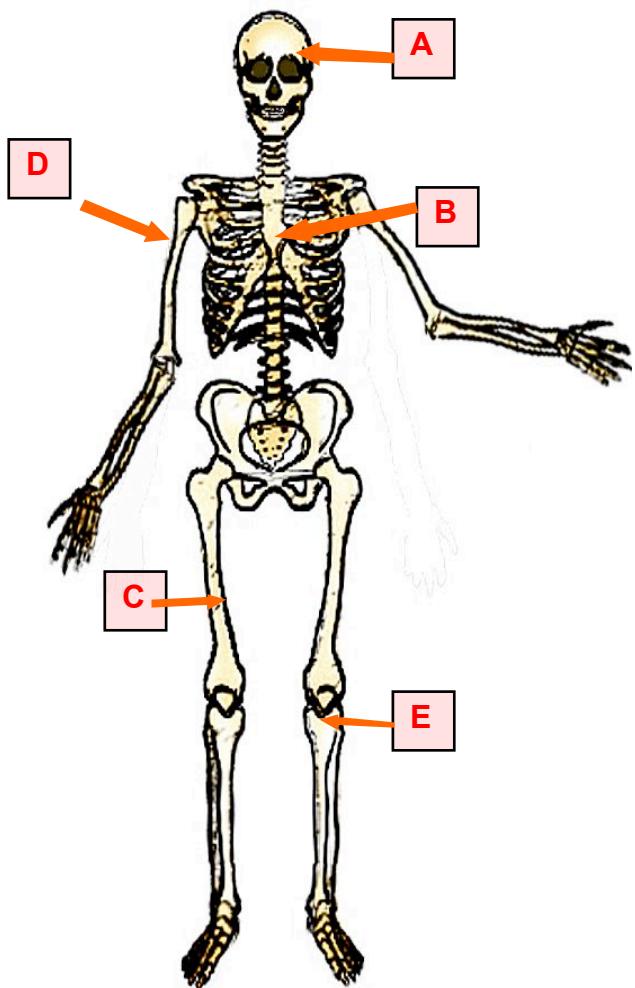
### The Skeleton is Made Up of Bones

The skeleton of an adult human is made up of 206 bones

Learn them all,  
Sorry....



**2.1. DON'T LOOK AT THE LAST PICTURE.  
LABEL THE BONES.**



- |         |
|---------|
| A ..... |
| B ..... |
| C ..... |
| D ..... |
| E ..... |

**2.2. REVIEW ALL OF THE MAIN BONES  
THAT THE TEACHER POINTS TO.**

Where are the ribs?  
and the tibia?....



## The Skeleton has Various Functions

- Support
- Shape
- Protection
- Movement
- Making Blood Cells

2.3. Can you write an example of each of these functions?

The skeleton has a big effect on performance

Strong bones are very important in sports like rugby or weightlifting

People with long and light bones are well suited for sports like Basketball or high jump

2.4. What kind of bones is a handball player likely to have?

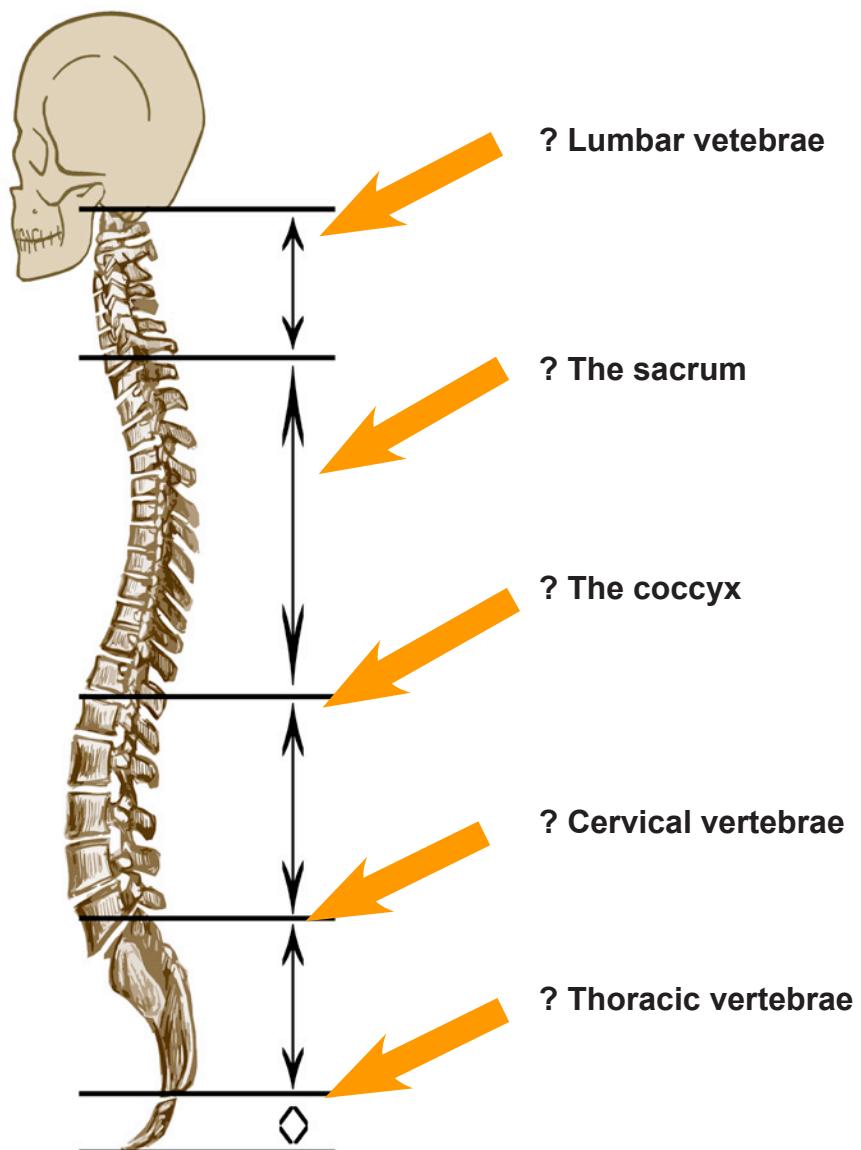
And a volleyball player? \_\_\_\_\_

And finally, what sports would you be good at (taking into account your bone structure)?  
\_\_\_\_\_

## SHEET 3:

### 3. JOINTS

The spine has Five **Different Sections**, Each one contains bones called vertebrae (each bone is a “vertebra”)



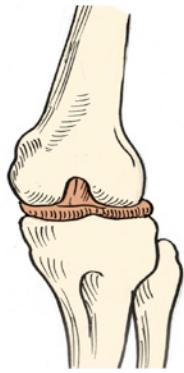
3.1. Draw an arrow matching the parts of the spinal column with the names.

## SHEET 4: JOINTS



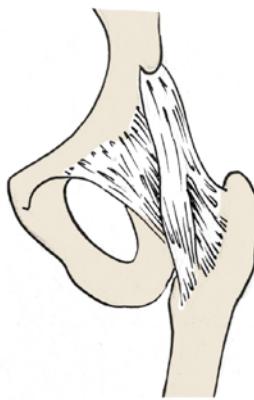
### Connective Tissues Join Muscle and Bones

#### CARTILAGE



Cartilage forms cushions between bones to stop them from rubbing

#### LIGAMENTS



Ligaments are like very strong string that holds bones together

#### TENDONS



Tendons attach muscles to bones (or to other muscles)

Don't confuse tendons and ligaments ...

**REMEMBER** – ligaments connect bones with bones; tendons connect bones with muscles.

#### 4.1. Complete the table below

Connective Tissues	Function
Cartilage	
Ligaments	
Tendons	

## SHEET 5: JOINTS



There are **Three** Different Types of Joints

**1**

Immovable joints ...like between bones in the **cranium**

**2**

Slightly movable joints.  
.. bones that can move a little bit - **vertebrae**

**3**

Freely movable joints ... the **shoulder**

**5.1.** Draw the joints mentioned above and point out the differences between them.

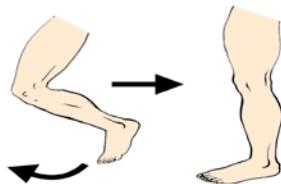
# SHEET 6: JOINTS



There are Six Kinds of Joint Movements

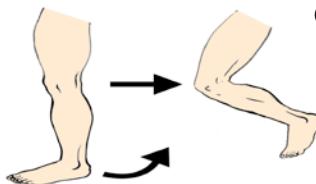
## EXTENSION

Opening a joint.



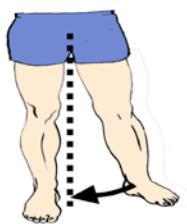
## FLEXION

closing a joint.



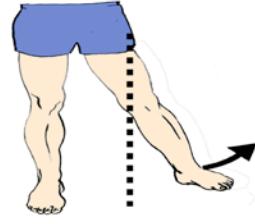
## ADDITION

Moving Towards an Imaginary Centre line.



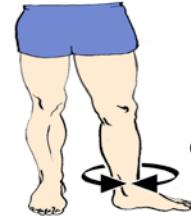
## ABDUCTION

Moving away from an imaginary centre line.



## ROTATION

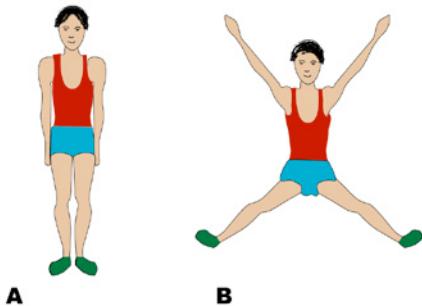
turning a limb clockwise or



Also CIRCUNDUCTION is a combination of extension, flexion, abduction and adduction - for example when you move your finger in a circular motion.

6.1. Explain different stretching techniques using these words: EXTENSION, FLEXION, ABDUCTION, ADDUCTION, ROTATION and CIRCUNDUCTION

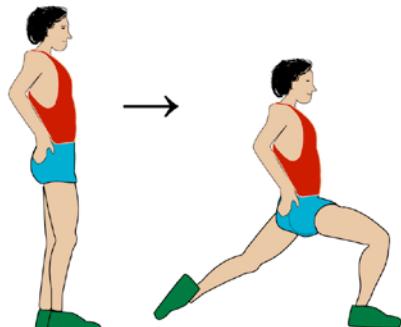
**6.2. Can you explain this movement in terms of joint movements in the hips and arms?**



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**6.3. and this movement for the hip, knee, and left and right ankle joints?**



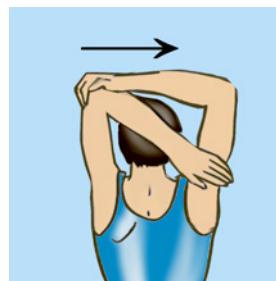
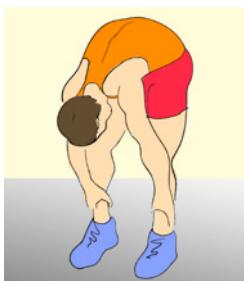
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**6.4. Write the joint movements that you see in the following drawings:**



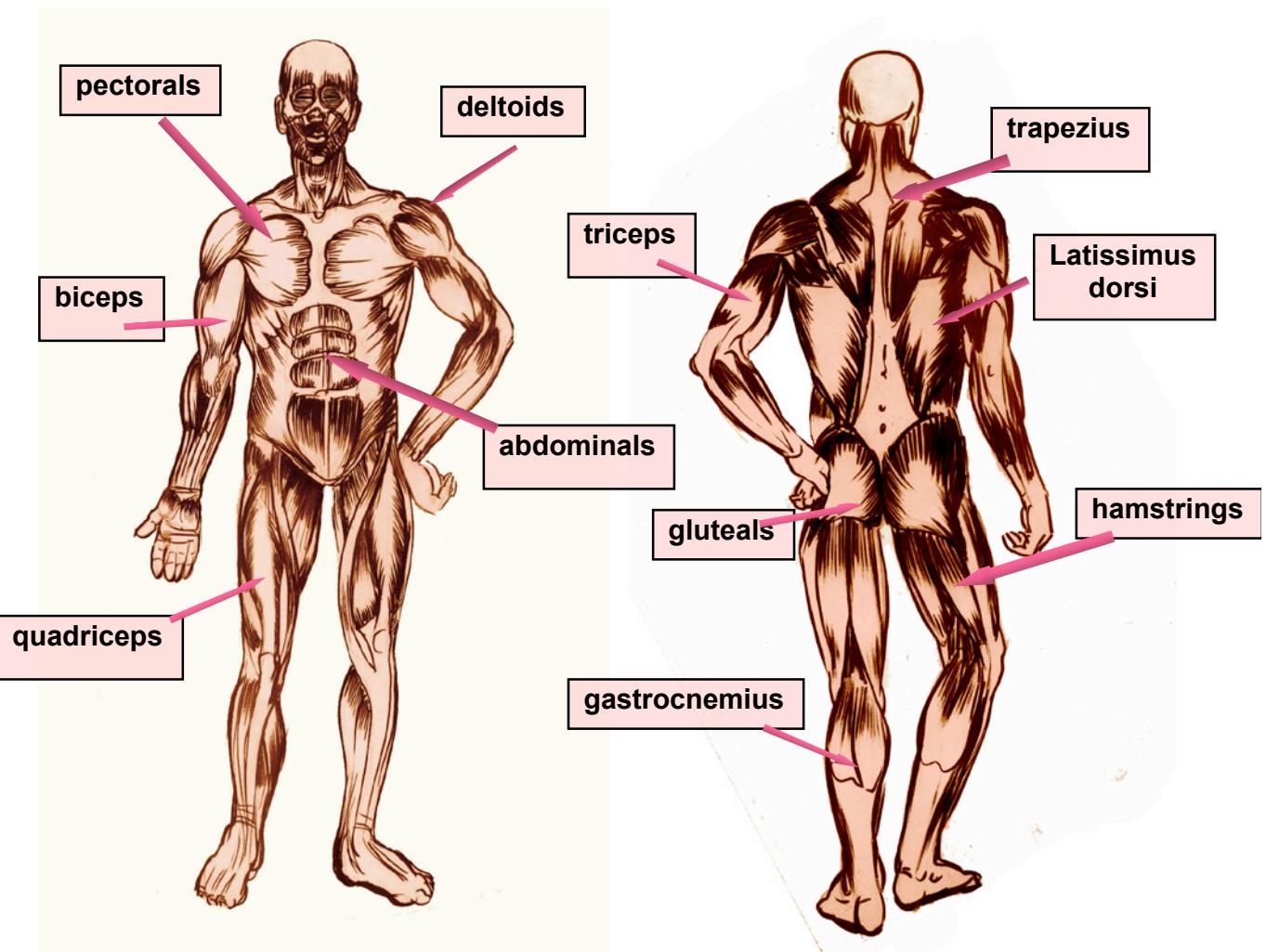
## SHEET 7:



### 4. Muscular System

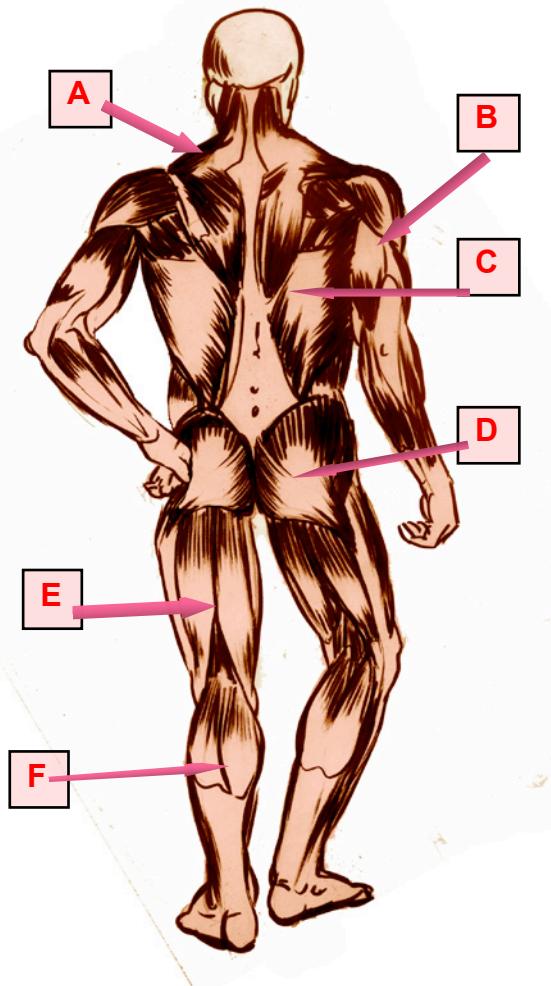
(We also have a circulatory and respiratory system which will be studied next year).

Muscles are Made up of Loads of Small Fibres



An adult human has more than 600 muscles

## 7.1. DON'T LOOK AT THE PREVIOUS PICTURE. LABEL THE MUSCLES



- A .....
- B .....
- C .....
- D .....
- E .....
- F .....

## 7.2. REVIEW THE MUSCLES THAT THE TEACHER POINTS OUT.



# SHEET 8: MUSCLES

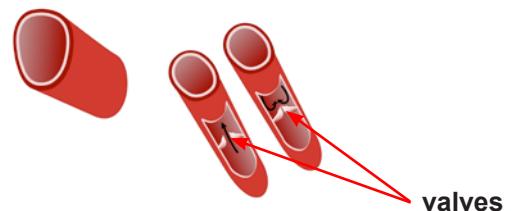


**There are Three Different Types of Muscles**

**1**

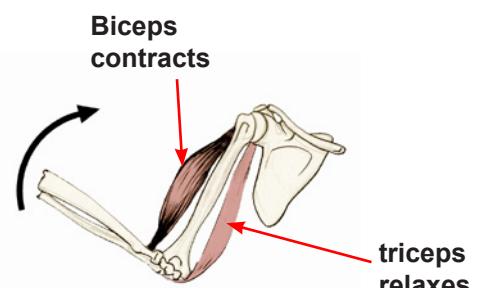
## Heart Muscles

...only in the heart



**2**

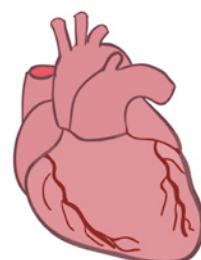
Involuntary Muscles ...intestines  
and blood vessels



**3**

## Voluntary Muscles

... used for movement



**8.1. Match the types of muscles with the drawings.**

## SHEET 9: MUSCLES



### Fast-Twitch for Power, Slow-Twitch for Endurance (White) (Red)

#### Fast-Twitch for

Sprinters, shot-putters

#### Slow-Twitch for

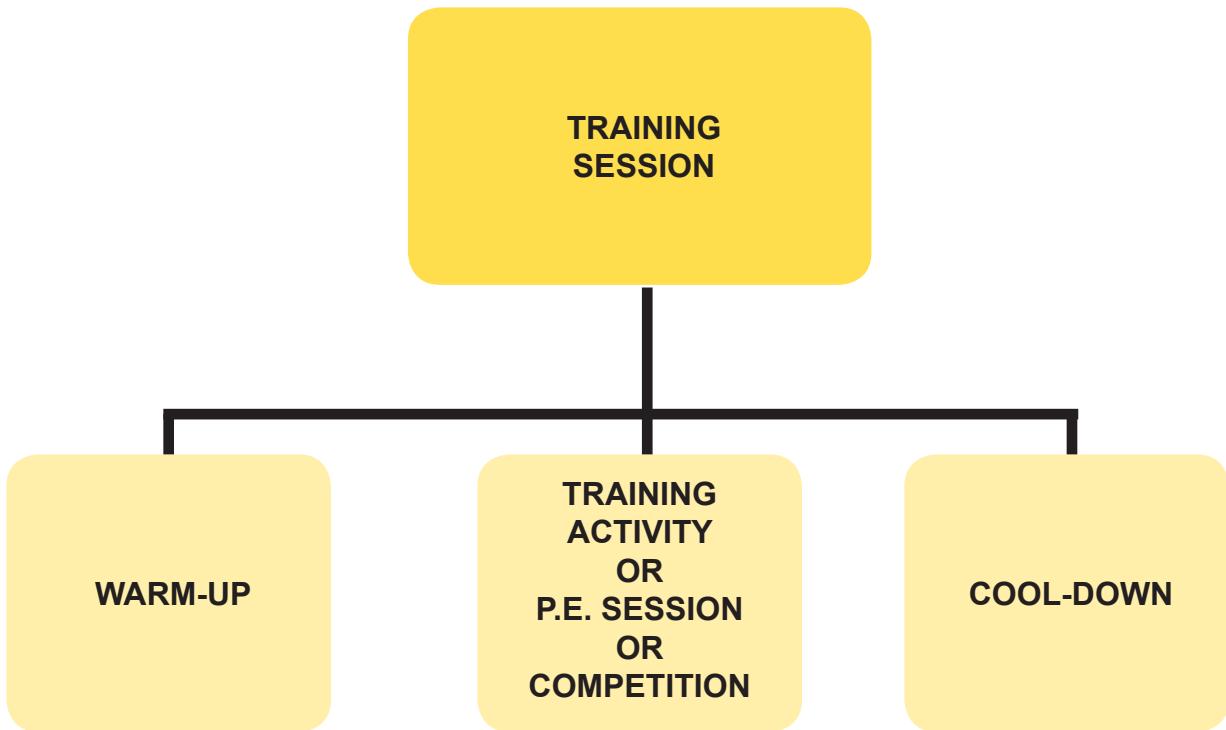
Long-distance runners



## SHEET 10:

### 5. Organising a general warmup

Always **warm up** first and **cool down** afterwards



These are vital to every training session, but should be done in a gentle and progressive way.

**WARM-UP-** gradually gets your body ready for training.

### WHY IS IT SO IMPORTANT?:

- 1) It increases the **temperature** of the body, and increases **blood flow** to the muscles - so they can work well later on in the training
- 2) It **stretches** the muscles, **moves the joints** and increases the **range of movement** - so you're ready to work and less likely to injure yourself
- 3) It concentrates the **mind** on training

## STAGES OF A WARM UP

You should warm-up **your cardiovascular system** first.

Do some gentle exercise, like **jogging**, until you are just out of breath.



### 1. JOGGING

Then **stretch**



### 2. STRETCHING

And then, play a **game**, such as a short distance run to increase your pulse rate



### 3. GAMES



**10.1. GENERAL WARM-UP.** Review and improve the warm-up you prepared last year. Keeping in mind the parts of a general warm-up, design a warm-up with order and progress in the order that you see on the sheet. Use the names of the muscles that you have just learnt

## GENERAL WARM-UP

DESCRIPTION OF THE ACTIVITY	DRAWING	MUSCLES, BONES AND JOINTS INCLUDED	TIME
<b><u>1) JOGGING:</u></b>			
<b><u>2.) STRECHING and JOINT MOVEMENT.</u></b>			
<b><u>2.1.Ankles:</u></b>			
<b><u>2.2.Knees:</u></b>			
<b><u>2.3.Hips:</u></b>			
<b><u>2.4. Torso:</u></b>			
<b><u>2.5.Shoulders:</u></b>			
<b><u>2.6. Elbows:</u></b>			
<b><u>2.7. Wrists:</u></b>			
<b><u>2.6.Neck:</u></b>			
<b><u>3.) DYNAMIC ACTIVITY / GAME:</u></b>			

## **SHEET 11:**

### **6. Individual physical condition card**

**YOUR INDIVIDUAL PHYSICAL CONDITION CARD WILL HAVE 3 PARTS:**

- BIOMETRIC INFORMATION. YOUR HEIGHT, WEIGHT AND BODY MASS INDEX
- THE RESULTS OF THE RUFFIER TEST (30 SQUATS)
- THE RESULTS OF THE PHYSICAL CONDITION AND COORDINATION TESTS

**11.1. Can you remember the names of the 7 physical tests that you did last year and will do again this year?**

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Practise them in the PE class and compare your results with last year's.

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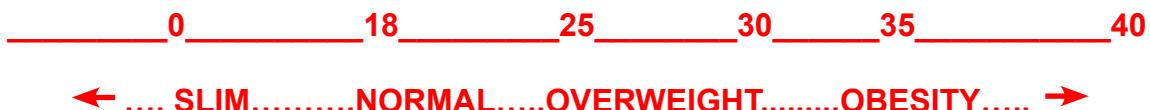
## **1) Biometric information.** Your height, weight and body mass index

**BODY MASS INDEX (B.M.I.):** This is done by dividing a person's weight by their height squared.

$$\text{B.M.I.} = \frac{\text{WEIGHT (in kg.)}}{\text{HEIGHT}^2 \text{ (in m.)}}$$

For example: Your weight is 75 kg and your height is 1.50:

$$\text{B.M.I. (kg. /m}^2\text{)} = 75 / 2,25 (1.50 \times 1.50) = 33,33.$$



### 11.2. Calculate the **Body Mass Index**.

Do this in PE class, write them down and compare your **B.M.I.** results with last year's.

	WEIGHT	HEIGHT	B.M.I.
Last year			

Month	WEIGHT	HEIGHT	B.M.I.
October			

## **2) MEASURING YOUR HEART RATE AND RUFFIER TEST (30 SQUATS)**

### **RUFFIER TEST (30)**

**11.3. Calculate your results for the **RUFFIER TEST**.**

Practise it in PE class and write down your results comparing them with last year's.

	HEART RATE AT REST	H.R SQUATS	H.R REST 1'	EVALUATION
Last year				—

	HEART RATE AT REST	H.R SQUATS	H.R REST 1'	EVALUATION
October				—
December				
April				
June				

#### **EVALUATION:**

EXCELLENT.....= < 1  
GOOD.....= 2 to 6  
NORMAL.....= 3 to 9  
BELOW NORMAL...= + 10

**FORMULA:** HEART RATE AT REST+ H.R  
SQUATS + H.R. RATE 1'- 200 / 10

<b>SELF ASSESSMENT</b> <b>Read and tick ✓ where appropriate</b>		<b>YES</b>	<b>NOT YET</b>	<b>NOT SURE</b>
	I can recognize spoken and written words and expressions related to the content of the lesson.			
	I can report information from this unit both orally and in writing.			
	I can talk about different aspects of this unit providing my own opinion or views.			
	I can speak about some of the relevant themes in the unit.			
	I can write and do projects about the topics in the unit.			