



PHYSICAL EDUCATION

3RD ESO

EL ESCORIAL SECONDARY SCHOOL
P.E. DEPARTMENT

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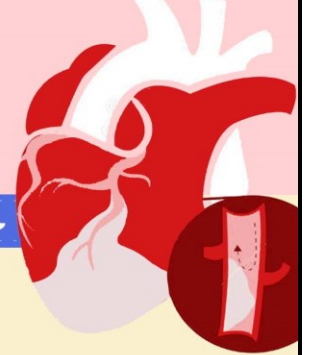


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UNIT 1 THE HEART RATE

THE HEART RATE AND ALTERATIONS



AT RESTING



TACHYCARDIA +100BPM

It has more beats at resting, specifically above 100 bpm. It would be advisable to consult a doctor when our pulse is above this figure at resting.



STANDARD 50-100BPM

The average heart rate at resting is between 50 and 100 bpm for a healthy person. The pulse is strong and rhythmic.



BRADYCARDIA -50BPM

It has fewer beats per minute at resting than a regular person. It tends to be taken for having a bigger and stronger heart.

ARRHYTHMIA

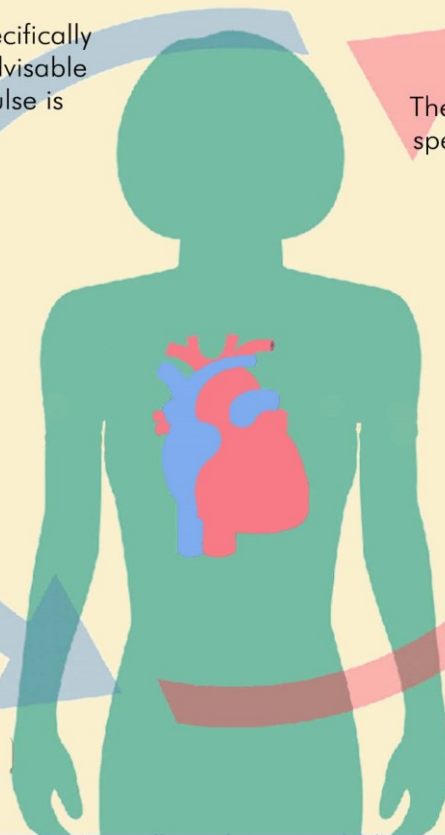


The pulse is not regular. Sometimes it speeds up and sometimes goes more slowly. If it goes with chest pain or shortness of breath... go to the doctor.

AT EXERCISING 120-180BPM



Generally speaking, a healthy exercise should be between 120 and 180 bpm because all the benefits for health are achieved in this rate.



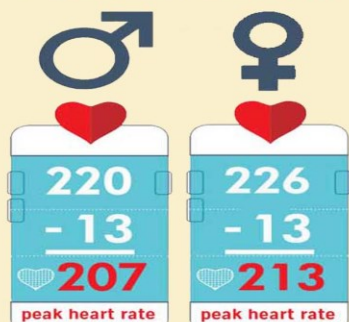
AT EXERCISING (Generally Speaking)

FIND YOUR TARGET HEART RATE

3

STEP 1 Find your estimated PEAK heart rate

Subtract your age from **220/226**



EXAMPLE: 13 YEARS OLD

STEP 2 FIND YOUR TARGET HEART RATE

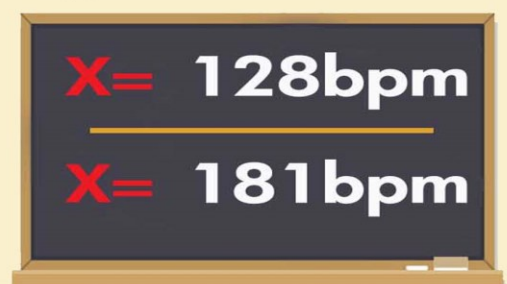
Find your healthy interval training. Remember it is between 60 and 85% of the PHR.



EXAMPLE: GIRL, 13, WELL-TRAINED

STEP 3 FIND YOUR TARGET HEART RATE

This is the interval of bpm in which you have to train in order to improve your health.

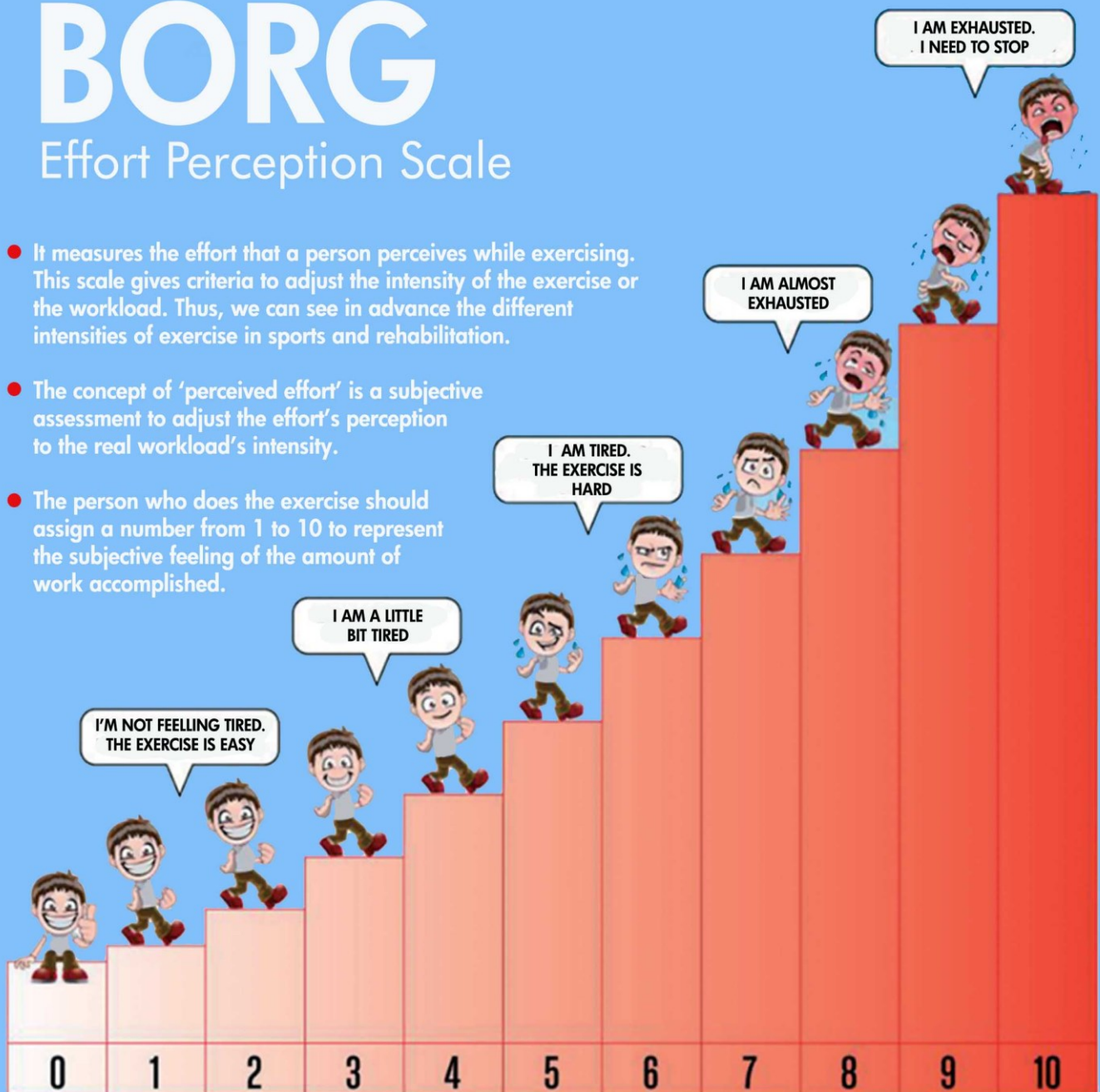


POOR FITNESS: 50-75% MHR
AVERAGE FITNESS: 60-75% MHR

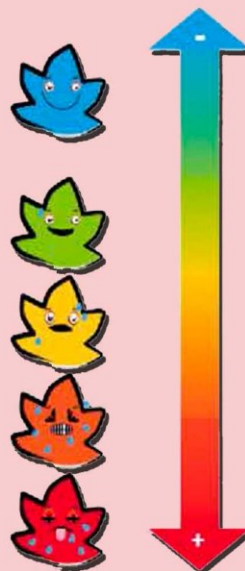
BORG

Effort Perception Scale

- It measures the effort that a person perceives while exercising. This scale gives criteria to adjust the intensity of the exercise or the workload. Thus, we can see in advance the different intensities of exercise in sports and rehabilitation.
- The concept of 'perceived effort' is a subjective assessment to adjust the effort's perception to the real workload's intensity.
- The person who does the exercise should assign a number from 1 to 10 to represent the subjective feeling of the amount of work accomplished.



0	At resting
1	Very, very mild
2	Very mild
3	Mild
4	A little bit hard
5	Hard
6	Harder
7	Very hard
8	Very, very hard
9	Maximum
10	Extreme



HOW
INTENSE
YOUR
EFFORT
HAS BEEN?

UNIT 2 THE SPECIFIC WARM UP

The specific warm up starts as a general one to gradually adapt, through specific activities (related to the subsequent main activity), all body systems to perform more intense activities, fulfilling a number of aims.



AIMS



OUR PERFORMANCE IMPROVES. WE DO THE EXERCISES BETTER.



WE ARE MORE FOCUSED. THE EXERCISE WILL BE BETTER TOO.



WE AVOID INJURIES THANKS TO A BETTER MUSCULAR COORDINATION

EFFECTS



CARDIOVASCULAR SYSTEM

The heart rate is increased and become more powerful. This leads that blood circulation is faster and O₂ support is more effective.



RESPIRATORY SYSTEM

Breathing rate is increased (you breathe faster), so oxygenation is better.



LOCOMOTIVE SYSTEM

It increases muscular temperature and joints are more lubricated.



NERVOUS SYSTEM

Greater intermuscular (between muscles) and intramuscular (into the muscle itself) coordination, which prevents muscle incoordinations that lead to contractions (pulls) and muscle tears.



STRUCTURE



CARDIOVASCULAR AND RESPIRATORY SYSTEM

Through mild aerobic exercises. In cold days, if you are injured (Tendinitis, overloads...) or with elder people, it is good to do joint mobility in the beginning, then aerobic exercises and then displacement exercises.



LOCOMOTIVE SYSTEM

Through joint mobility and muscular elasticity exercises related to those limbs that are going to work harder. For instance:

- Legs in cycling.
- Arms in handball.



NERVOUS SYSTEM

We have to do exercises more powerful gradually and technical gestures (with material) of the sport we are doing.

- Lay ups in basketball.
- Passes and shots in soccer.



THE END

UNIT 3 THE LOCOMOTIVE SYSTEM

THE SKELETAL SYSTEM

206 BONES

FUNCTIONS

SUPPORT

They support the muscles and other soft tissues.

MOVEMENT

In locomotion, thanks to the muscles that are inserted in them through tendons and its contraction, movement is achieved.

PROTECTION

They protect organs of possible injuries.

TYPES OF BONES

LONG BONES

They are cylindrical and long. In the central areas of the bones, the medullary cavity houses a tissue well known by all: the bone marrow.



FEMUR

SHORT BONES

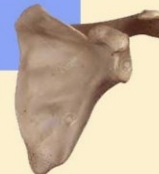
As the vertebrae and the bones of the carpus and tarsus. They are small and have irregular or cuboid form.



VERTEBRA

FLAT BONES

As the skull, the sternum, the scapula, ribs or iliac bones (hip, sacrum, coccyx). They are thin, flat and wide. They have an outer layer of compact bone tissue and are filled with spongy bone tissue.



SCAPULA

THE JOINT SYSTEM

THEY ARE THE LINK OF TWO OR MORE BONES

TYPES

IMMOVABLE



DO NOT ALLOW ANY MOVEMENT. BONES CONTACT EACH OTHER DIRECTLY. ITS MAIN FUNCTION IS TO PROTECT THE ORGANS THAT ARE INSIDE.

SLIGHTLY MOVABLE



THEY ALLOW SMALL MOVEMENTS. EXAMPLES ARE THE JOINTS OF THE VERTEBRAL BODIES. THE SUM OF THE MOVEMENT OF ALL VERTEBRAE RESULTING IN A GREAT MOVEMENT.

FREELY MOVABLE



THEY ARE THOSE THAT PERFORM WIDE MOVEMENTS. THEY ARE CHARACTERIZED BECAUSE THEY POSSESS A CARTILAGE, JOINT LIGAMENTS AND SYNOVIAL FLUID (WHICH «GREASE» THE JOINT).

THE MUSCULAR SYSTEM

650 MUSCLES

FUNCTIONS

Allowing the body to move

Protection of inner organs

It gives shape to the body

It helps to maintain the posture

TYPES OF MUSCLES

SKELETAL MUSCLE

They are called like this because under the microscope they present stretch marks. They are in charge of the movement of skeleton through a voluntary thought like, for example, bending the arm, the leg, crouch, sitting down...

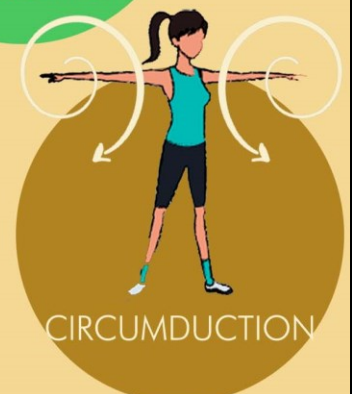
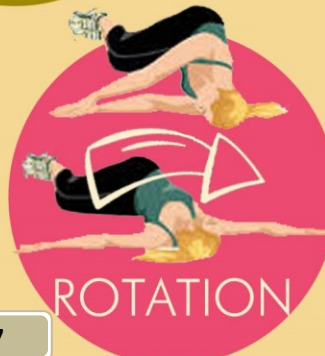
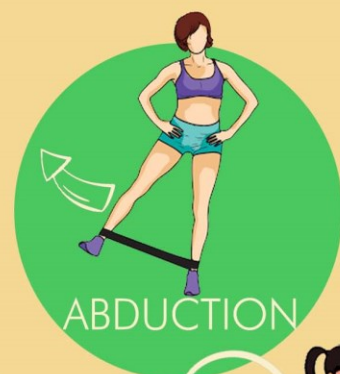
SMOOTH MUSCLE

The smooth muscles form the walls of the viscera and are not under the control of the will. Its fibers do not contain stretch marks. The movements what these muscles do are, for example, peristaltics (where the viscera contract for pass the food and make him digest).

CARDIAC MUSCLE

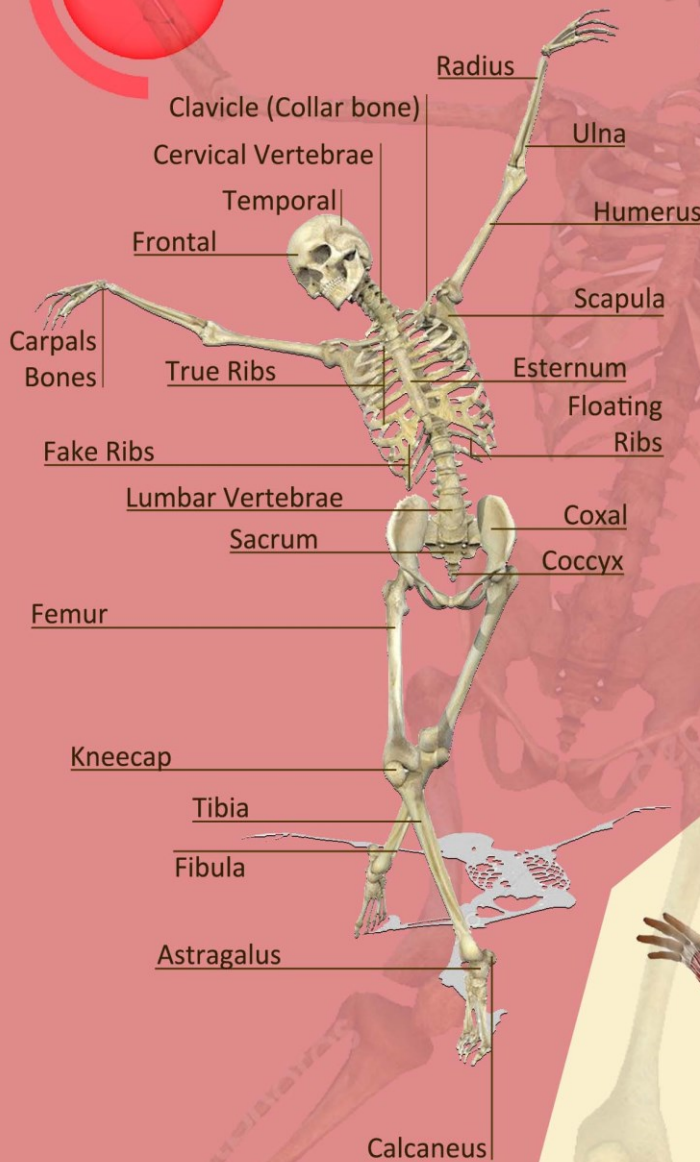
Is the only striated muscle of involuntary contraction. In fact, when someone suffers a heart attack, what happens is a kind of cramp like in any other body muscle in which the heart paralyzes its relaxation movement.

BASIC BODY MOVEMENTS



MAIN BONES AND MUSCLES

BONES



Trapezius

Triceps

Latissimus Dorsii

Lumbar Square

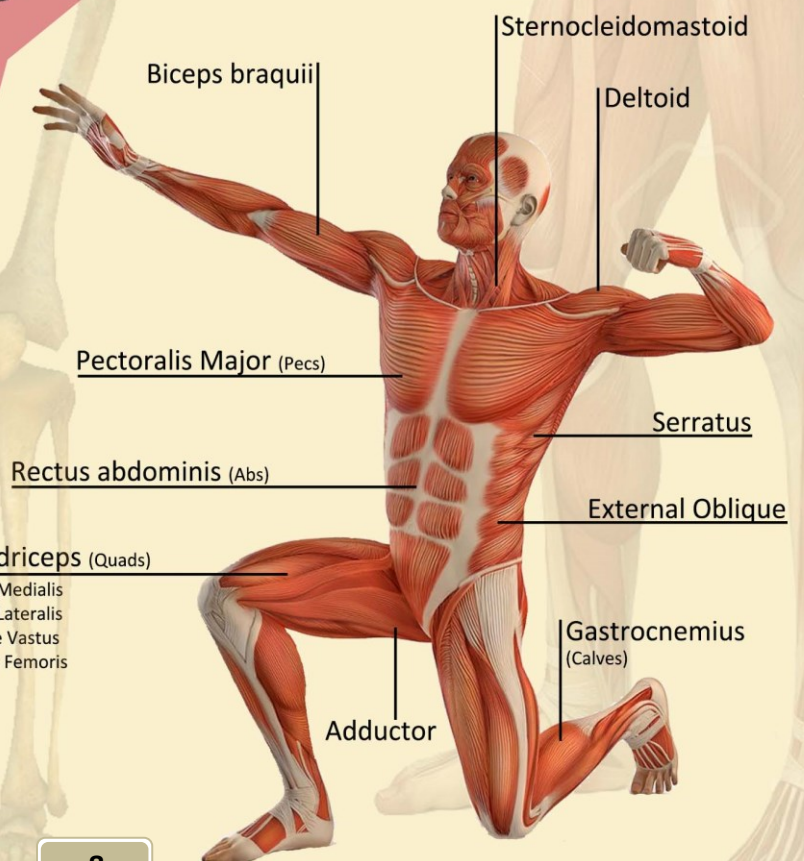
Gluteus Maximus

Soleus

Hamstrings

Semitendinosus
Semimembranosus
Biceps Femoris

MUSCLES



UNIT 4 BASIC PHYSICAL ATTRIBUTES

STAMINA

IT IS THE ABILITY OF SUPPORTING AN EFFORT EFFECTIVELY AS LONG AS POSSIBLE

SUBCOMPONENTS

AEROBIC

BETWEEN

120
and
180bpm

Mild and
long
efforts

Marathon



ANAEROBIC

MORE THAN

180bpm

Short and
intense
efforts



LACTIC

From 30''
to
1'30''

400 m
shuttle

ALACTIC

From 3''
to 10''

100 m
shuttle

STAMINA TRAINING SYSTEMS

CONTINUOUS SYSTEMS (NON-STOP)

THE WORKOUT IS PERFORMED WITHOUT PAUSES OR STOPS. THIS SYSTEM IS USUALLY QUITE LONG, RANGING FROM 3 MIN TO SEVERAL HOURS. WITHIN THESE SYSTEMS, WE FIND THREE METHODS.

Steady Running

Run gently and steady for a while.

50-75% MHR

Fartlek

60-85% MHR
Similar to the steady running but we do changes of pace faster or slower in a natural way (when running the field) or artificially (accelerating myself).

Total Training

50-85% MHR
It is a combination of running and exercises designed to improve the strength and all the physical attributes.

FRACTIONAL SYSTEMS

THEY ARE THOSE SYSTEMS WHERE WORK CAN BE BROKEN UP INTO SEVERAL PARTS. THERE ARE WHAT ARE CALLED RECOVERY BREAKS. HERE WE HAVE TWO METHODS.

Interval Training

75% MHR

Where a particular number of repetitions are done (more than 10) to reach 180 bpm including a pause to recover incompletely (turns to start when we are in 120bpm).

Example: 3x8x100 m. Resting: 30 s & 3m

Repetitions

85-100% MHR

Where there are a certain number of repetitions to 85 to 100% of MHR, leaving a complete or nearly complete pause (beats of resting).

Example: 3x1000 m. Resting: 8'

MIXED SYSTEMS

WHERE, IN ADDITION TO RESISTANCE, ANOTHER COMPONENT OF PHYSICAL FITNESS IS WORKED OUT. THERE ARE TWO METHODS.

Slopes

Running uphill (to develop the power) or downhill (which improve the speed).

60-90% MHR

Example: 10x50m. Resting: 2-3m

Circuit training

50-85% MHR

It is passed through a series of exercises called stations where we work by time or repetitions, leaving a recovery equivalent to the effort.

Example: 3x8ejx30s. Resting: 30 s & 3 m

HOW TO WORK IT OUT

AEROBIC
STAMINA

120-180
BPM

30 MIN
TO 1 HOUR
EACH
SESSION

START
WITH
CONTINUOUS
SYSTEMS

ONE DAY
OF TRAINING
ONE DAY
OF RESTING

WORKING OUT
GRADUALLY
AND
INDIVIDUALLY

WORKING OUT FROM 250 TO 300 MIN SMOOTHLY PER WEEK HAS EVEN BETTER EFFECTS FOR HEALTH. THE MORE, THE BETTER.

SPEED

IT IS THE ABILITY OF DOING A MOVEMENT AS FAST AS POSSIBLE

SUBCOMPONENTS

REACTION SPEED

It is the ability to respond to a certain stimulus in the shortest possible time.



GESTURAL SPEED

It is the ability to perform a movement with one part of the body in the shortest possible time.



TRAVELLING SPEED

It is the ability to scroll through a space in the shortest possible time.

BENEFITS

IT IMPROVES ATTENTION

It increases attention to act in many daily activities.

IT STIMULATES THE NERVOUS SYSTEM

In this way, the loss of coordination related to aging is delayed.

MORE EASE

You can carry out movements of daily life with speed and efficiency.

HOW TO TRAIN IT

PERFORM A GOOD WARMING UP TO AVOID INJURY AND IMPROVE THE RESULT.

IF WE WORK STAMINA-SPEED (MORE THAN 60 METERS), RECOVERIES MUST BE TO 120BPM.

INTENSITY MUST BE MAXIMUM (100%)

Example
2x6x60m
R: 3m & 8m

IF WE WORK WITH PURE SPEED (20-60 METERS), THE RECOVERY WILL BE 3 MIN FOR NOT STRAINING THE NERVOUS SYSTEM.

WORKING OUT FOR HEALTH

AEROBIC STAMINA

ENDURANCE STRENGTH

FLEXIBILITY (BOTH)

IN COMPETITION, FLEXIBILITY ACTS AS A FACILITATING QUALITY OF THE OTHERS



WORKING OUT FOR COMPETITION

STAMINA (BOTH)

STRENGTH (ALL OF THEM)

SPEED (ALL OF THEM)

A CURIOSITY

Fast people tend to be so by genetics. They have more amount of white (fast-twitch) fibers than red (slow-twitch).

STRENGTH

IS THE ABILITY TO OVERCOME OR OPPOSE AN EXTERNAL WEIGHT THROUGH THE ACTION OF THE MUSCLES

STRENGTH SUBCOMPONENTS

MAXIMUM STRENGTH

It is the greatest amount of strength that a muscle can produce without taking into account the speed. The most representative sport is weightlifting.



PROBLEMS OF WORK IT OUT BEFORE YOU ARE

18

- Spine deviations if we carry weight in the backbone.
- Spine and joint compressions.
- Contractures by dismetrias.
- Torn meniscus.
- Joint overload.

STRENGTH ENDURANCE

It is the ability of supporting and repeat a movement of strength for a long time. Typical sports are rowing or cross country skiing.



EXPLOSIVE STRENGTH

It is the ability to move a load or the own body in the shortest possible time. Characteristic sport gestures are jumps and shoots.



YOU CAN WORK IT OUT WITHOUT LOADS. IF LOADS ARE HEAVY, THEY CAN CAUSE:

- Low back pain and sciatica.
- Knee injuries.
- Tendonitis.
- Periostitis.
- Lumbar contractures.

How to Train Strength?

- Work mainly with large muscle groups 2 or 3 times a week on alternate days.
- Work with your own weight and with mild loads such as balls or bands.
- Movements must be controlled. 1-2 sets of 8-12 repetitions.
- Work all parts of the body. Otherwise, injuries may appear. Vary these exercises avoid boring..
- Increase weight by 5-10% after a time and go to 2-4 sets of 6-12 reps (60-80%). Workout based on strength games is ok.

MUSCULAR CONTRACTIONS

CONCENTRIC

Muscle fiber contracts, shortening its length and going against gravity (upwards).



ECCENTRIC

Muscle fiber contracts lengthening, slowing down the movement in favour of gravity (downwards).

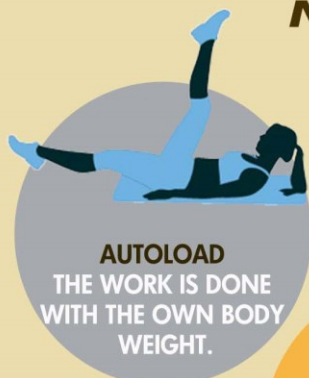


ISOMETRIC

Where the muscle contracts but there is no shortening or stretching. There is no visible movement. Actually, the muscle is still.



TRAINING MEANS



AUTOLOAD
THE WORK IS DONE WITH THE OWN BODY WEIGHT.



MULTIHOPS
THE LOWER BODY STRENGTH IS IMPROVED.



MULTITHROWS
WITH MILD LOADS SUCH AS MEDICINE BALLS.



OVERLOADS:
MIDDLE WEIGHTS (FROM 20-50% TO 60-80%) AND CONTROLLED MOVEMENTS IN ORDER TO AVOID INJURIES.



ISOMETRY
WITH CONTRACTIONS NOT EXCEEDING 30 SECONDS.

URBAN OUTDOORS

Training

CALISTHENICS

1.-Do a good warm up 2.-Effort time: 30 seconds 3.-Recovery: 30 seconds



GOOD AND CHEAP

Trainings in an urban or natural environment are always recommended because they are done outdoors, which it is more relaxing, as by the variety of new exercises, which makes this type of workouts more motivating.

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1 Legs up



2 Jump up



3 Push ups



4 Pliometric jumps



5 Legs up



6 Legs up



7 Legs up



8 Pull ups



9 Climbing pull ups



10 Isometric pull ups



11 Isometric pull ups



15 Rope climbing



14 Ring pull ups



13 Walking upwards



12 Walking with hands



FLEXIBILITY

IT IS THE QUALITY OF DOING A MOVEMENT UNTIL THE END OF THE WAY

SUBCOMPONENTS

MUSCULAR ELASTICITY

is the property of muscle tissue to be stretched until the end of its haul.



JOINT MOBILITY

It is the ability to move a joint to the end of its haul.



FACTORS

AGE

Flexibility is lost with age from birth. Training slows or prevents this loss and even improves it.

SEX

Women are more flexible than men because of their muscle tone. Their hip moves better because is wider.

WARMING UP

A previously warmed up muscle stretches much better than other non-heated.

TEMPERATURE AND TIME

The colder the hour o day, the more difficult to stretch. Early in the morning, the body is more rigid.

PSYCHOLOGY

Shy and introverted people tend to have greater stiffness than the most extroverted ones.

ILLNESS

Some diseases cause muscle stiffness, like some degenerative ailments or hipertonias.



Flexibility exercises that must be avoided are those in which acute pain signals appear, which indicates that we are about to exceed the limit of stretching and we could break the muscle fibers (muscle breakdown).

HOW TO WORK IT OUT

10 min
DAILY

SUBCOMPONENTS

MUSCULAR ELASTICITY
JOINT MOBILITY

3-5 REPS
15-30 SECS

MOVEMENTS

ACTIVES

I DO THE
MOVEMENT

METHOD

STATIC

WITHOUT
MOVEMENT

MOVEMENTS

PASSIVES

THE MOVEMENT
IS DONE

METHOD

DYNAMIC

WITH
MOVEMENT



BENEFITS

It improves coordination. Thus, it improves the output and prevents probable injuries and muscles aches and pains.

It delays the onset of degenarative joint diseases.

It delays muscle fatigue in an effort and improves recovery after him.

It makes us feel more loose and the movements are more affordable and effective.

It prevents muscle and joint stiffness.

It compensates bad body postures.

MENSTRUATION AND EXERCISE

Although every woman is unique, her body undergoes the hormonal fluctuations of the menstrual cycle, further influencing the differences in training. To design a training plan, we must take into account the phases of the menstrual period.



PHASE 4

LUTEUS PHASE

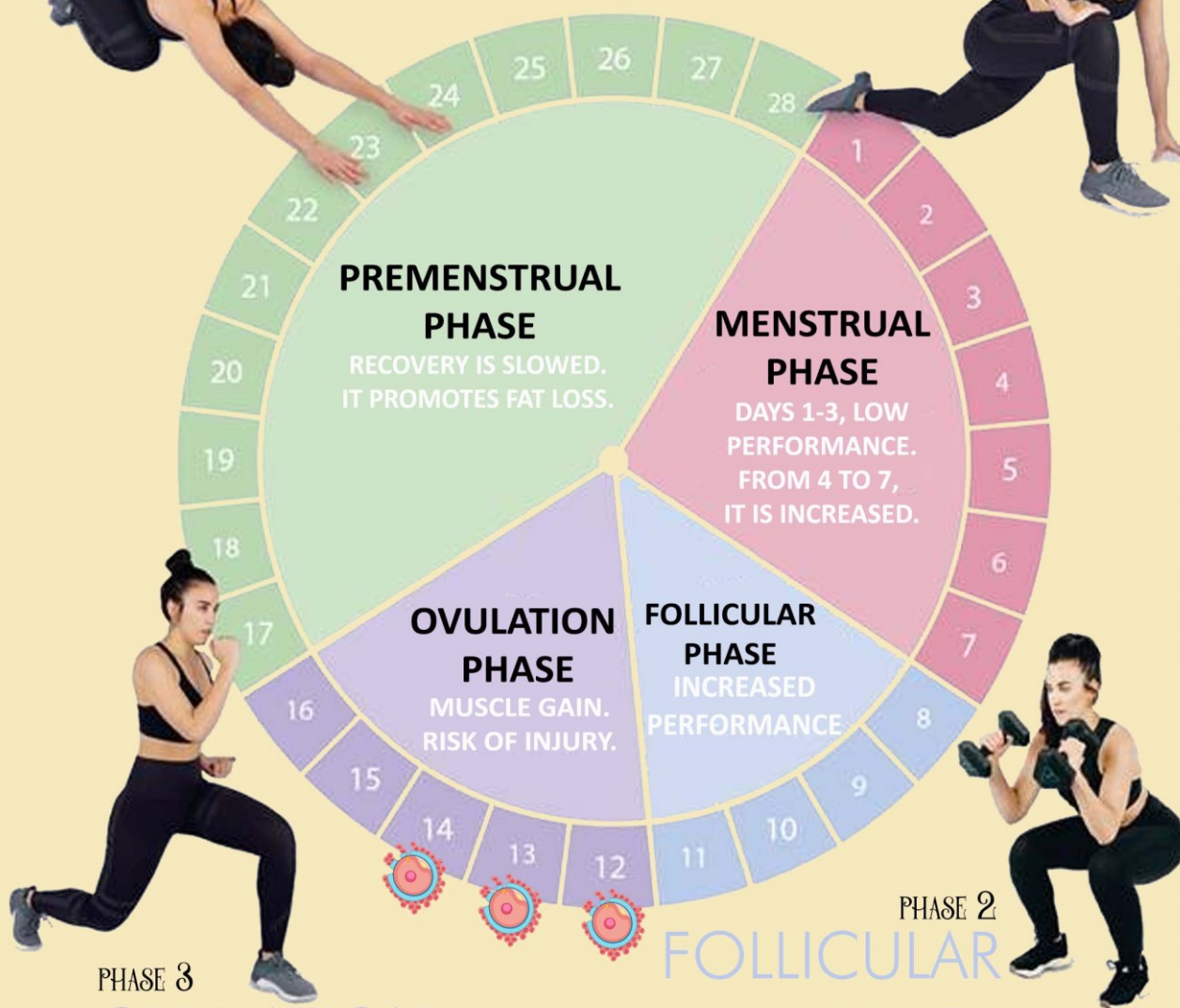
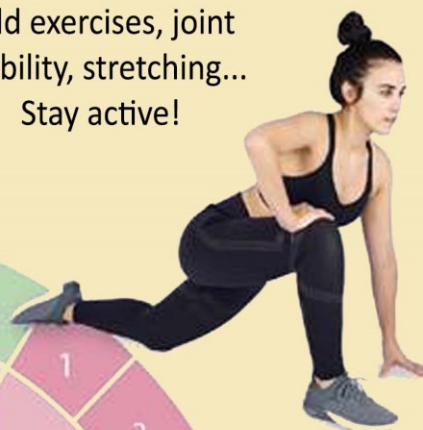
Avoid stress and fatigue.
Do light and steady cardio.
Pilates or yoga too.



PHASE 1

MENSTRUATION

Mild exercises, joint
mobility, stretching...
Stay active!



PHASE 3

OVULATION

During these 3-5 days, testosterone is increased. You should train maximum strength carefully.



PHASE 2

FOLICULAR PHASE

Your best moment.
Work out strength, jumps or
intense running.



UNIT 5

POSTURAL ATTITUDE

10 TIPS TO HELP EASE YOUR BACK PAIN



Lower back pain is an enormous burden on society with up to 80% of society being affected by lower back pain in their lifetime. If you are suffering from lower back pain the following tips will assist you in easing your pain. If pain persists please see your local health care provider.

Ten tips are:



DO SOME EXERCISE QUITE OFTEN. SWIM, RUN OR GO ON BIKE WILL PUT YOU IN GOOD FITNESS. GYM EXERCISES IMPROVE THE STRENGTH OF YOUR BACK MUSCLES, BESIDES THE STAMINA AND FLEXIBILITY. ANY EXERCISE IS BETTER THAN NONE.



WHEN YOU HAVE TO SIT, SUPPORT THE LOW BACK AGAINST THE BACK OF THE CHAIR. KEEP YOUR BACK RELATIVELY STRAIGHT AND THE ARMS OR ELBOWS SUPPORTED. KEEP THE HEAD STRAIGHT AND FEET ON THE GROUND.



HEAT YOUR MUSCLES BEFORE EXERCISE AND STRETCH THEM AT THE END. IF YOU COMPETE IN SOME SPORT, FOLLOW YOUR TRAINER'S ADVICE TO AVOID HAVING BACK PROBLEMS.



SLEEP ON YOUR SIDE WITH A PILLOW BETWEEN YOUR LEGS, OR IF LYING ON BACK PLACE SOME PILLOWS UNDER THE KNEES OR HAVE THE KNEES BENT UP.



BE CAREFUL WITH AUTOMEDICATION IF YOU ARE IN UNBEARABLE PAIN. ONLY DOCTORS CAN PRESCRIBE MEDS.



KEEP ACTIVE AND AVOID BEING SEATED EVERY DAY. OTHERWISE, YOU WILL LOSE STRENGTH IN THE BACK MUSCULATURE AND INCREASE THE RISK OF HURTING YOURSELF.



HAVING A GOOD POSTURE WHILE STANDING AVOIDS PAIN. TRY FOCUSING ON THIS AND WALK WITH STRAIGHT BACK AND DO NOT WALK HUMPY.



PLACE A STOOL UNDER YOUR FEET WHEN GOING SITTING IN YOUR STUDY OR WORK PLACE.



IF YOUR BACK HURTS VERY OFTEN, TALK WITH YOUR PARENTS AND WITH THE DOCTOR IN ORDER TO TAKE ACTION AND AVOID FORESEEABLE PROBLEMS.



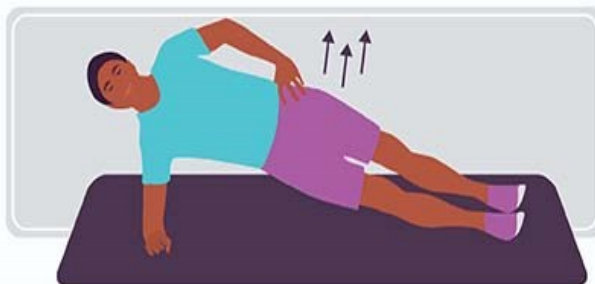
AVOID HIGH HEELS, THEY CHANGE PELVIC POSITION AND PLACE LOAD ON THE LUMBAR SPINE.

No Turning Back

Reduce Back Pain with These Spine-Stabilizing Exercises



Back pain affects **8 out of 10** people at some point during their lives.



When comparing core stabilization exercises to conventional strengthening exercises, a number of studies show that stabilization moves more effectively **reduce low back pain and improve function**.



Research shows **yoga, stretching, and exercise** (especially core-strengthening exercises) can significantly reduce back pain.



Opposite Arm/Leg Raise

Start on your hands and knees. **Extend one leg and lift the opposite arm** until they are in line with the body. Return to the starting position and repeat on the other side.



Reclined Supine Twist

Lie on your back, bring your arms out to the sides, and bend both knees into the chest. **Drop both knees to one side and look over the opposite shoulder**. Return to the starting position and repeat on the other side.



Cat Cow Stretch

Start on your hands and knees. Take your gaze up while tilting your pelvis back so the tail bone sticks up and the back arches downward. **Then take your gaze toward your navel and round your spine**.



Pelvic Tilt

Lie on the floor with your knees bent and feet flat on the floor. Keep a space between the floor and your low back. **Tilt your pelvis down so the low back arches up**, then engage your abdominals and press your low back into the floor.



Supine Hamstring Stretch

Lie flat on your back and **extend one leg flat on the mat and the other leg straight up toward the ceiling**. Gently pull on the back of the raised leg while keeping your shoulders on the mat. Hold for 30 seconds, then repeat on the other side.

the 7 wrong postures YOU SHOULD BE AWARE

- 1 SHRUGGING**


PROBLEMS	SOLUTION
Cervical, dorsal and lumbar overload. Neck tension and headache.	Put the back straight and throw the shoulders back without arching your back.
- 2 HAND THE ARM THROUGH THE WINDOW**


PROBLEMS	SOLUTION
Shoulders and spine twisted, so pains occur in neck and spine.	Both hands on the steering wheel. Back in straight position. Strengthen the abs.
- 3 DO NOT SUPPORT THE BACK**


PROBLEMS	SOLUTION
Cervical pain, low back pain, back pain and pain headlong	Lumbar area leaning on the backrest without crossing legs.
- 4 POORLY REGULATED CHAIR**


PROBLEMS	SOLUTION
Cervical pain, low back pain, sciatica, and premature tiredness.	Legs at 90°, feet on the floor and looking straight.
- 5 PICKING UP WEIGHTS WITHOUT BENDING THE LEGS**


PROBLEMS	SOLUTION
Back pain, low back pain and sciatica.	Take the weight through a deep flexion on knees.
- 6 CARRYING BACKPACKS ON ONE SHOULDER**


PROBLEMS	SOLUTION
Dorsal pain and scoliotic attitude.	Carry the backpack high and put it on both shoulders.
- 7**


PROBLEMS	SOLUTION
Torticollis, low back pain and sciatica.	Sleeping on your side with legs to the chest and back straight.

8 flexibility exercises TO DO AT HOME



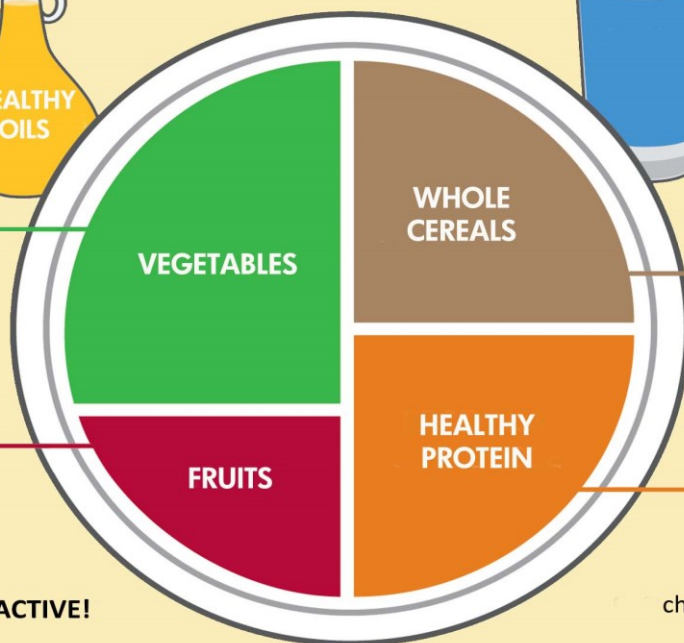
THE HEALTHY PLATE

Use healthy oils (such as colza and olive oil), in salads and meals. Restrict butter. Avoid trans fat.



The more veggies, the better.
The more variety, the better.
Potatoes and fries doesn't count.

Eat plenty of fruits of every colour.



Drink water, tea or coffee (With almost zero sugar). Take 1-2 portions of dairies and 1 glass of juice. Avoid sugary drinks.

Eat varied whole cereals (grains) like bread, pasta or rice. Restrict refined cereals (like white rice and white bread).

Choose fish, poultries, legumes (beans, chickpeas, lentils) and nuts; restrict red meats and cheese; avoid bacon, cold cut and other processed meats.



KEEP YOURSELF ACTIVE!

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www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu



WATER AND OTHER DRINKS

Water should be the drink protagonist. Coffee, tea and other infusions, preferably without sugar.

01



SUGARY DRINKS

Limit bottled juices and sodas as much as possible. Natural juice should be drunk one glass a day, no more.

02



DAIRY

Limit the intake to one or two portions a day. We talk about milk, yoghurts..

03



FATS

Opt for healthy fats like olive oil, avocados, nuts...

04

We must give our diet the importance it deserves, valuing the composition and the quality of the food we consume, its properties and the effects (positive or negative) that they will have on our health.

1 One Food Diet

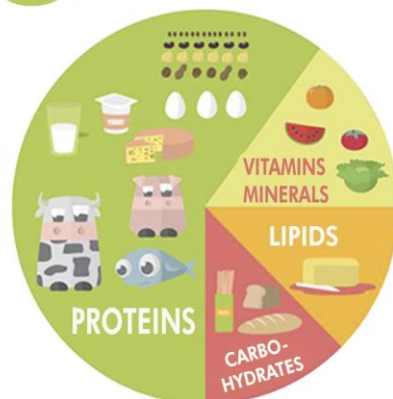
It's characterised by
ELIMINATION
LIQUIDS

! DANGER!

Only liquids are removed,
so when quit this diet,
what is lost is recovered.



3 Hyperproteic Diet



IT'S CHARACTERISED BY
high intake of
PROTEINS

Restriction
Carbohydrates



CARBOHYDRATES
are drastically
REMOVED



! CONSEQUENCES

Because of not having a direct source of energy, the
body has to generate that energy in another way:
LIPIDS and PROTEINS. It can cause gout and kidney
stones

! SEVERE CONSEQUENCES

- The absence of carbohydrates causes the formation of ketones that accumulate in the blood and they can cause nausea and fatigue.
- Liver and kidney overload.
- Uric acid levels increase.
- Decreased absorption of calcium.
- Weight loss is more from water than fat.

There are many people who sometimes in their lives
go on a restrictive diet; but instead of going to a
specialist, they embark on mindless and sometimes
dangerous diets.

Dissociated diet 2

NO INGEST



! ACCORDING TO ITS DEFFENDERS

Nutrients are not assimilated by the body if taken separately.
In this way, you lose weight.

4 Restrictive Diet

You must ingest
MINIMUM
OF CALORIES
600-800 Kcal/day

! DANGER!

DAILY NEEDS
ARE NOT covered



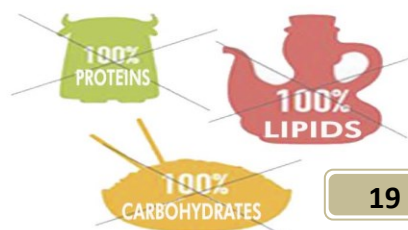
REALITY

DON'T EXIST

FOODS

THAT CONTAIN

1 NUTRIENT



! CONSEQUENCES

Gout, gastrointestinal disorders, dermatological
disorders, cardiovascular disorders, depression,
anxiety, insomnia, intolerance to cold...



MYTHS ABOUT DIET

GET THINNER FAST AND WITH NO EFFORT

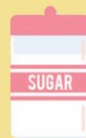
Miracle diets do not exist. All of them are a fraud.
Diets must be monitored by specialists and they must be personalized.



SOME FOODS BURN FATS

None food has the gift of burning fat. None.
Do not get trick by add, internet or piece of news.

SUGAR IS BAD FOR HAVING A GOOD HEALTH



Taking the equivalent to 6 little spoons of sugar is healthy.
From 6 to 12 is harmless, except for your teeth. Above 12 is harmful.
A soda has 10 little spoons os sugar.



CARBOHYDRATES ARE EVIL

CH should be 40-45%of the diet, including fibre and starch.
Our body needs them to make the brain and muscles work.

DO NOT EAT BETWEEN MEALS



There is no problem with eating between meals if these foods are healthy, such as fruit, yoghurt or low fat cheese.



LOW FAT

EAT AS LESS FATS AS YOU CAN

Fats should be 20-35% of the diet, above all the monoinsaturated ones.
For instance, olive oil.

LIGHT PRODUCTS HELP YOU TO LOSE WEIGHT



Light products have more sugar or salt than recommended in order to make them more tasties.
Therefore, calories are the same or higher.



YOU HAVE TO EAT AL KIND OF FOOD

Yes and no.
You should eat from all main nutrients. It does not mean that you can eat a burger, fries, ice cream and pizza daily, for instance.

EATING AT NIGHT GET YOU FAT



The hour is indifferent.
You have to take into accounts the amount of calories you eat and burn off (Energy balance), nothing more.



YOU SHOULD DRINK 2 LITERS OF WATER A DAY

You have to drink when you are thirsty.
It is as simple as that.
Only elder people and babies have to be careful; and when summer is coming, even more.

PHYSICAL ACTIVITY

TIPS FOR AN ACTIVE AND HEALTHY WAY OF LIFE



ENERGY BALANCE

WHAT IS?

A proportion between the calories we eat and we burn out. We should achieve a balance between them. Knowing this concept is the key to maintain a good health.



If the outcome is positive, it means we are taking more energy than we burn out.



On the other hand, if we burn out more than we take in, the outcome will be negative.

Ideally, we should balance calories in and calories out.

WHAT DOES THE ENERGY BURN OUT DEPEND ON?

It depends on three factors:



10% of the energy is used to digest, absorb and store the food. This concept is known as induce-food termogenesis.

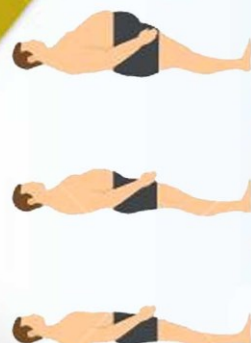
BMI BODY MASS INDEX



Body-energy- burn out is called basal metabolism, and it is the use of energy that our body needs in order to staying alive. It is 60-70% of the whole calories intake.



The rest of the energy, between 20-30%, is used to move the body, for being physically active.



$$\frac{\text{WEIGHT}}{\text{HEIGHT}^2}$$

18.5-24.9

25-29.9

+40



EFFICIENT EXERCISE

Can't decide whether to take a brisk walk or do reps with hand weights? Both are beneficial, but the right choice for you depends on your fitness goals.



AEROBIC EXERCISE

STRENGTH TRAINING



If you want to build muscle



If you want to improve your cardiovascular fitness



If you want to lose fat



If you want to lower your blood pressure



If you have lower-back pain



If you want to reduce LDL ("bad") and total cholesterol



If you want to improve HDL ("good") cholesterol



If you want to build or maintain bone



If you have knee pain



UNIT 7. Eating disorders

DID YOU KNOW THAT...? OVERWEIGHT AND OBESITY

5 OUT OF 10
PEOPLE SUFFER

They are defined as and excessive accumulation of fat and it is a health problem due to it increases the risk of suffering other illness and mortality.

Nowadays, Spain is the second European country with the highest level of overweight.

CAUSES



Genetics.



Other illness, such as hipotiroidism.



A diet rich in fats and carbohydrates.



Cultural (food rich in fat).



Not healthy food advertising.



Sedentary life-style.



Junk food between main meals.



Psychological, like depression.

CONSEQUENCES



Bad colesterol is higher.



High blood pressure.



Diabetes mellitus.



Heart attack and stroke.



Kidney insufficiency.



Joint problems.



Respiratory distress.



Social (low self-esteem and bullying).

PRECAUTIONARY MEASURES

CHANGE THE WAY YOU EAT

- Balance your diet.
- Make 5 meals a day (smaller portions).
- Eat more fruit and vegetables.

- Eat more grain.
- Stop drinking so much soda. Drink more water.

DO MORE EXERCISE

- Work out 60 minutes daily.
- Do some sport.

BIGOREXIA

HOW BIG IS BIG ENOUGH?

Bigorexia, formally known as muscle dysmorphia, is a condition which typically occurs in men, though women may also be affected.

Obsession for 'bulking up' and preoccupation with muscle size. People feel they are not muscular enough.

SYMPTOMS

- Feeling muscular build is never good enough
- Excessive exercising
- Overlooking risk of injury
- Constant mirror-checking.
- Constant measuring.
- Avoiding social situations where more muscular people may be present.
- Extreme attention to diet.
- Exercising even when injured.
- Anxiety when a workout is missed.
- Neglecting employment and relationships.
- Use of steroids.
- Obsession with trying the latest muscle-building routines.
- Overdosing on supplements.
- Not admitting there is a problem.

RISKS

- Self-loathing
- Depression
- Social Isolation
- Eating Disorders
- Injury to muscles, joints and tendons from over-exercising
- Issues from steroids
- Anxiety
- Drug addiction
- Financial Hardship



Eating disorder

ANOREXIA

In medicine, the expression as symptom means the lack of appetite and it can be caused by some issues.

ANOREXIA

From Greek a-/an (negation) + órexis (appetite, hungry; desire)

Lack or appetite

TYPES OF ANOREXIA

1 NERVOUS

- ✦ Loss of weight self-induced with a distortion of the body image.

What is the trigger

- Anomalous concern for the shape and weight of one's body
- It is showed through excessive control of the food intake

Age and Sex

👉 14-18

👉 20-40

👉 It is more frequent in women

Types

Restrictive



There is an attempt to decrease weight with diet and physical exercise. There is no self-induced vomiting or drug use

Purgative



In addition to diet and exercise, provocation of vomiting and use of medications

CIRCUMSTANCES



Fever episodes



General and digestive diseases



Temporary situations of everyday life

2 SEXUAL

Inhibited sexual desire or anaphrodisia

- ✦ It refers to the low level of sexual interest where a person will not start or respond to the desire for sexual activity

What is the trigger

- Self-concept of little or null sex appeal
- Success, pleasure and love denial
- Fear of rejection
- Difficulty at showing sexual desire

SPAIN

80.000 cases

5 out of 100 women suffer from it

1 die (100 per year)

Average age

15 years old

SEX



95%



5%

ALARM SIGNALS

- ★ Weight concern
- ★ Personality changes
- ★ Vertigo, dizziness, fainting

- ★ Fear of gain weight or getting fat
- ★ In women, the loss of three consecutive menstruations at least

Eating disorder

BULIMIA

It is a disease in which people eat in excess or have episodes in which they eat too much, feel a loss of control and is accompanied by purging methods to avoid weight gain

ETIMOLOGY

From Latin bulimia, which comes from Greek (boulimia)
It consists of bous (beef) and limos (hunger)

It means overeating or beef hunger

CAUSES



Genetics



Psychological



Traumatic



Familiar



Social and cultural

NERVOUS BULIMIA

Eating disorder that consists of taking some behaviors

- Excessive food consumption in a short time
- Temporary feeling of well-being
- Removing excessive food through fasting, vomit, purges and laxatives.

FEATURES

- Compulsive pig out episodes
- Guilty feeling
- Anxiety feeling
- Loss of mental control for eating too much
- fasting or low intake episodes
- Compulsive intake episodes

COMPENSATORY BEHAVIORS



Forcing vomit



Immediate disappearance of physical discomfort and immediate decrease in fear of gaining weight



Excessive use of laxatives and diuretics. Overexercising and fasting

HOW TO PREVENT IT

- Not doing diets without medical advice
- Accepting your own body, take care of it and love it
- Try eating with the family
- Rejecting thinness like fashionable, success key and social approval
- Remembering that human values are more important

TYPES OF BULIMIA

Purgative

Compensatory vomit behavior, laxatives, diuretics intake or removing the food from the body

Non purgative

6% and 8% lead to other behaviors such as overexercising, do nothing or fasting repeatedly

AVERAGE AGE

Children

6 and 9

Girls



50%

Boys



30%

Average Age

17 years old



TAKE TREATMENT

80 to 90

From people of total amount of them





What Is Orthorexia?

Orthorexia, or orthorexia nervosa, describes an unhealthy obsession with healthy eating.

Orthorexia is a combination of two Greek words “ortho” and “orexi,” which translate to “correct” and “appetite.”

Signs of Orthorexia

- Consuming only a few types of food on a very restricted diet
- Compulsive behavior and concern about how healthy certain foods and ingredients are
- Following healthy food and lifestyle pages on social media
- Obsessively checking ingredients and nutritional labels

What Are the Causes of Orthorexia?

- Social Media Influence
- Anxiety
- Genetic Pickiness
- Exposure to Abnormal Eating Habits During Childhood

What To Do

- If you notice that you are exhibiting signs of orthorexia, reach out to your primary care provider.
- Your physician will be able to assess your health, screen for malnutrition, and detect psychological abnormalities. Your physician can also refer you to behavioral therapy specialists.

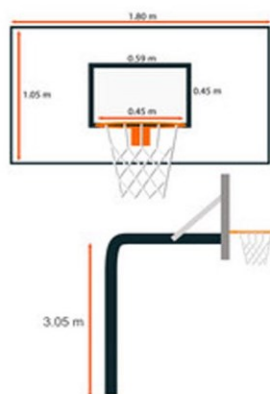
UNIT 8. BASKETBALL

What is basketball

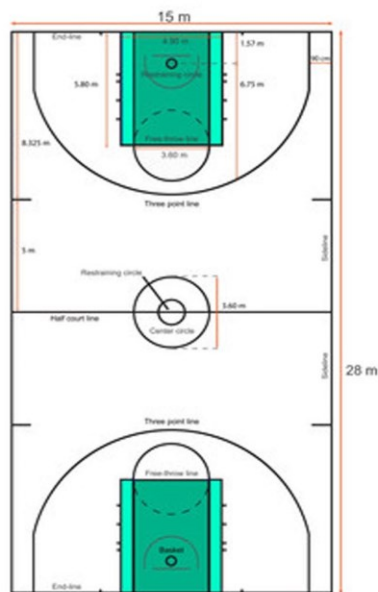
Basketball is a sport that is played by two teams of five players on a rectangular court. The objective is to shoot a ball through a hoop 18 inches in diameter and mounted at a height of 10 feet to backboards at each end of the court. A team can score a field goal by shooting the ball through the basket being defended by the opposition team during regular play.

Basketball court

The basketball court is the playing surface, consisting of a rectangular floor with tiles at either end. In professional or organized basketball, especially when played indoors, it is usually made out of a wood, often maple, and highly polished. Outdoor surfaces are generally made from standard paving materials such as concrete or asphalt.

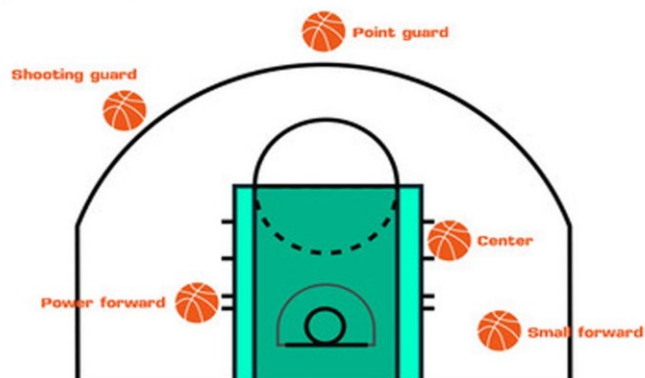


The backboard and basket

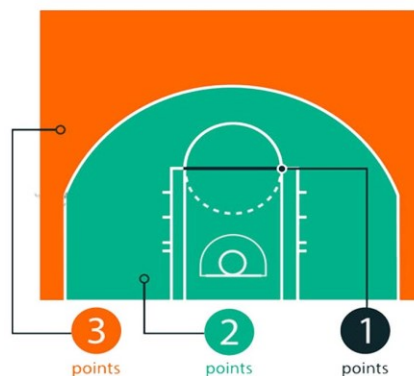


A diagram of a FIBA basketball court

Positions



Scoring



Basketball gestures



MATCH

4

QUARTERS

10

MINUTES

5

PLAYERS

Some rules

- **Personal foul (falta personal):** Any contact with a rival player is penalized as a personal foul.
- **Travelling (pasos):** A player who walks, runs without dribbling more than two steps or slides.
- **Double dribble (dobles):** A player catches the ball, dribbles, catches it again and dribbles again; do "carrying" (to put de palm beneath the ball) or dribbles with two hands at the same time.
- **Backcourt rule (campo atrás):** When the attacking crosses into the frontcourt they cannot move back.
- **TIME RULES: 3-second rule (tres segundos):** No attacker can spend more than three seconds inside the scoring area of the rival team. **5-second rule:** No attacker can spend more than five seconds without passing, dribbling or throwing the ball. **8-second rule:** A team has eight seconds to cross to the frontcourt. **24-second rule:** A team has 24 seconds to score.

28

Some vocabulary

- **Hoop/Rim:** Aro
- **Basket:** Canasta
- **Backboard:** Tablero
- **Free Throw:** Tiro libre
- **Draw:** Empate
- **Out of bounds:** Fuera de banda
- **Dribbling:** Botar
- **Extra time:** Prórroga

UNIT 9. Badminton

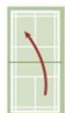
The shuttlecock can reach 300 km/h

THE BEST
OF **3** SETS
21 (+2)
POINTS



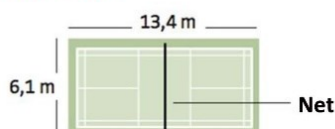
THE SERVE

Singles: In diagonal, from the right square if you have even points and from the left if they are odd.

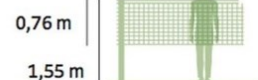


Doubles: First service starts from the right square and then, singles punctuation is applied.

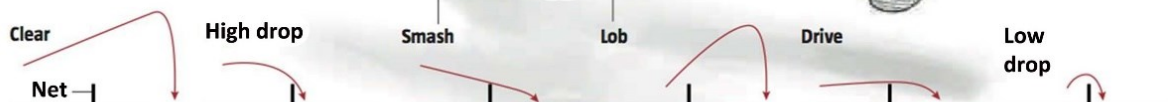
THE COURT



THE NET



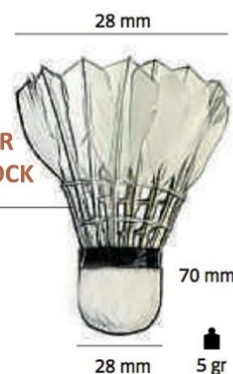
BASIC STROKES TRAJECTORY



I GET A POINT WHEN...

Adversary's court is touched, the flounce is out, touches body or clothes or not goes over the net.

FEATHER OR SHUTTLECOCK



The serve must be done under the waist.

There is only one shot.



RACKET

100 gr

MOVEMENTS

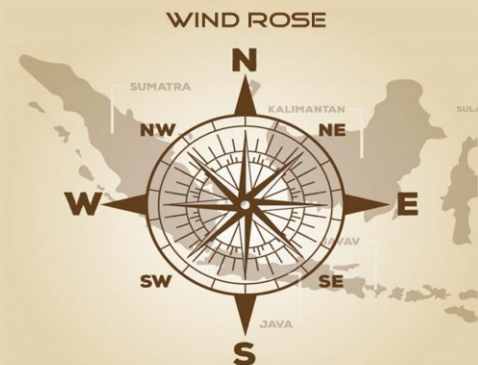
Fast and agile. High and hard strokes prevail, like the **smash**.

Lob is a defense stroke done nearby the net to the court's bottom.

Transcurso de la acción / Explicación	Puntos			Lado del Servicio	Servidor y Receptor	Ganador de el punto
0-0		C	D	Servicio del lado derecho.	A saca hacia C.A y C son el servidor y receptor iniciales, respectivamente.	A y B
		B	A	Siendo par la puntuación del servidor.		
A y B ganan el punto. A y B cambiarán de lado. A sirve otra vez desde el lado izquierdo. C y D se quedarán en el mismo lado en el que estaban.	1-0	C	D	Servicio del lado izquierdo.	A sirve hacia D	C y D
		A	B	Siendo impar la puntuación del servidor.		
C y D ganan un punto y también el derecho al servicio. Nadie cambia de lado.	1-1	C	D	Servicio del lado izquierdo.	D sirve hacia A	A y B
		A	B	Siendo impar la puntuación del servidor.		
A y B ganan un punto y también el derecho al servicio. Nadie cambia de lado.	2-1	C	D	Servicio del lado derecho.	B sirve hacia C	C y D
		A	B	Siendo par la puntuación del servidor.		
C y D ganan un punto y también el derecho al servicio. Nadie cambia de lado.	2-2	C	D	Servicio del lado derecho.	C sirve hacia B	C y D
		A	B	Siendo par la puntuación del servidor.		
C y D ganan el punto. C y D cambiarán de lado. C sirve otra vez desde el lado izquierdo. A y B se quedarán en el mismo lado en el que estaban.	3-2	D	C	Servicio del lado izquierdo.	C sirve hacia A	A y B
		A	B	Siendo impar la puntuación del servidor.		
A y B ganan un punto y también el derecho al servicio. Nadie cambia de lado.	3-3	D	C	Servicio del lado izquierdo.	A sirve hacia C	A y B
		A	B	Siendo impar la puntuación del servidor.		
A y B ganan el punto. A y B cambiarán de lado. A sirve otra vez desde el lado derecho. C y D se quedarán en el mismo lado en el que estaban.	4-3	D	C	Servicio del lado derecho.	A sirve hacia D	C y D
		B	A	Siendo par la puntuación del servidor.		

UNIT 10. Orienteering

ORIENTEERING



MAIN CARDINAL DIRECTIONS
SECONDARY CARDINAL DIRECTIONS



It is advisable having basic notions of orienteering when we go hiking if we lost the signals of the path.

Orienteering is defined as the capacity of finding north and, therefore, the rest of cardinal directions or four points of the compass.

As it is known, there are four cardinal directions which appear in the wind rose.

So, imagine that you do not have a compass, the battery of your mobile phone is dead or there is no coverage. You do not have a map either, but you have nature.



LET US START

ORIENTEERING BY NATURAL SIGNALS

IT IS DAYLIGHT AND THE SKY IS CLEAR. AT DAWN.

The sun rises in the East. East is on the right of any map, you have to put the sun to your right too. In this way, your body is oriented with reality.



IT IS DAYLIGHT AND IT IS THE SUNSET (OR TWILIGHT).

The sun sets in the west. West is on the left in any map, so you have to put the sun to your left too. In this way, your body is oriented with reality.



IT IS DAYLIGHT,
THE SKY IS CLEAR
(MID-MORNING)

At 12 pm, when our own shadow is shorter, the sun is in the south in the northern hemisphere. If we were in the southern hemisphere, the sun would be in the N.



IT IS DAYLIGHT,
THE SKY IS CLOUDY

We can use tree rings. The area where the rings are closer to each other points the north. On the contrary, the area where the rings are more separated points the south.



IT IS DAYLIGHT,
THE SKY IS CLOUDY

We can use the moss, which grows in shadow areas. In Europe it points to the north, but you have to be careful not to choose an area which is completely in shadows.



AT NIGHT WITH CLEAR SKY

We have to use the stars. Specifically, we have to locate the North Star (Polaris). It marks the north. How do we find it, then?

We have to measure the distance between Merak and Dubhe with our hand. They are in Big Dipper constellation. Then, we extend five times that distance from Dubhe towards outside. At some point, we find a bright star. That is the North Star, which is part of Little Dipper constellation (last star of the tail).

Once we know how to find the main cardinal directions, we must orientate the map with reality. It is very easy if we know where the north is in the map and in the real world.

ORIENTEERING WITH A MAP

North of the map must be oriented with real north (The North Star, the moss...).



TWIST IT

Orienteering is recognizing the situation of the north and, consequently, the rest of cardinal points. We will also need to know how to read a map.



MAP

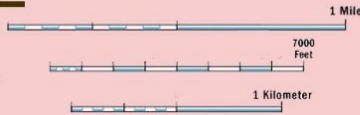
In Orienteering, it represents a not very big surface. It could be the gym, the school or the neighborhood. It gives us better details of the zone we are watching).

SCALE

Scale 1:25.000

Proportion between the map and reality.

Numbers usually goes in cm.



KEY

It expresses through drawings and conventional signs those important details that we go to find in the map. For example, the water is represented in blue, vegetation in green and mountains in brown.

CONTOUR LINES

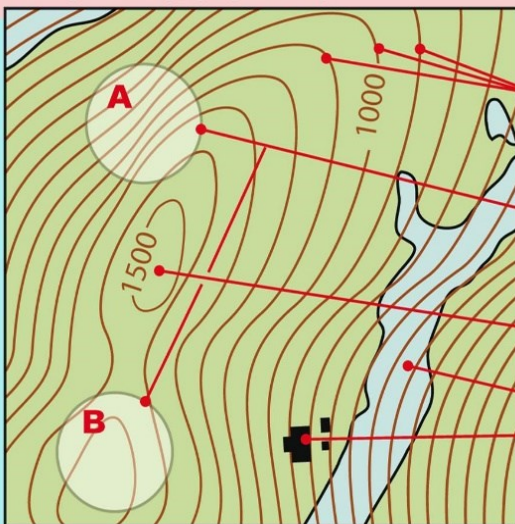
Or isohipsas.

They are lines that join points of same height on the level of the sea (altitude).

The real vertical distance between every line is in the range of 5 meters in the maps of small scale 1:15.000 (most used in orientation) and 10 meters in 1:25.000.

This distance is called *equidistance* or *contour interval*.

A simplified topographic map



Topographic maps show:

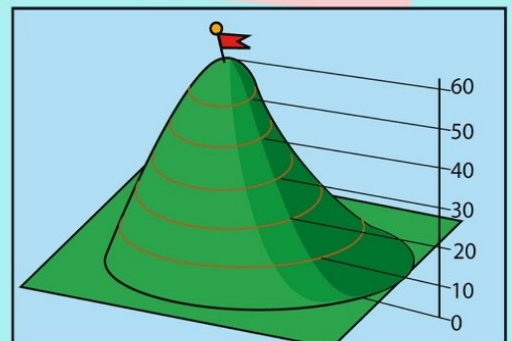
Contour lines, which represent changes in elevation, or height. The closer they are together, the steeper the land.

Here, the map shows that Area A is steeper than Area B because there are more lines and they are closer together in A.

Elevation indicator, which tells the height in feet or meters.

Details such as water,

Buildings



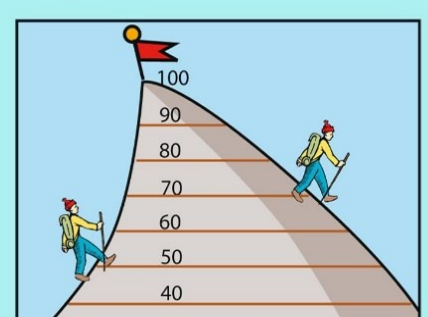
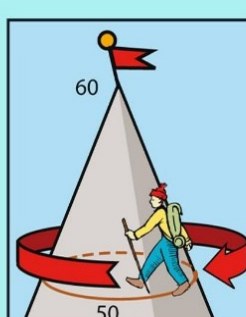
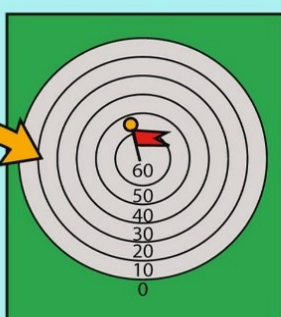
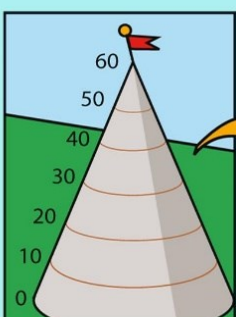
Contour lines show the elevation. Here the land is steeper on the left side and a gentler slope on the right.



A topographic map of a cone is a series of circles.

If the hiker stays on the same contour line, he'll stay at the same elevation, or height.

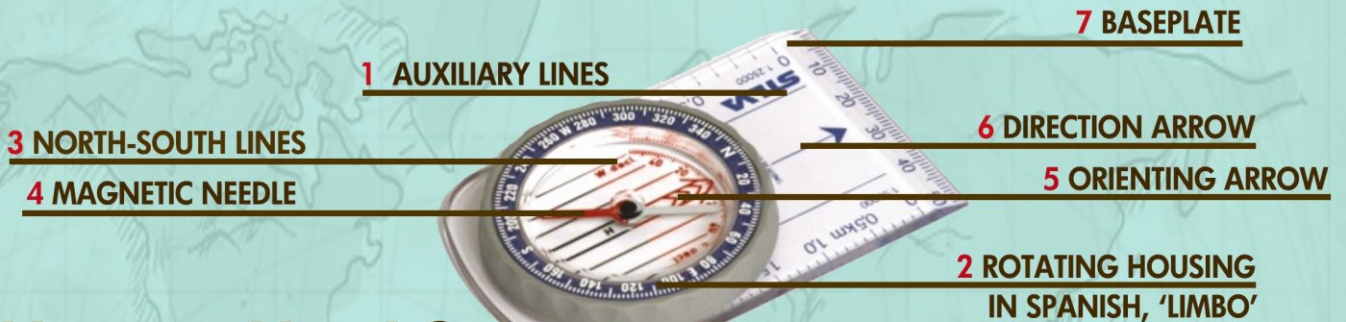
If the hiker crosses contour lines, he'll either be climbing up or going down in elevation.





THE COMPASS

Magnetic needle that always is aiming north.



How to Use It?

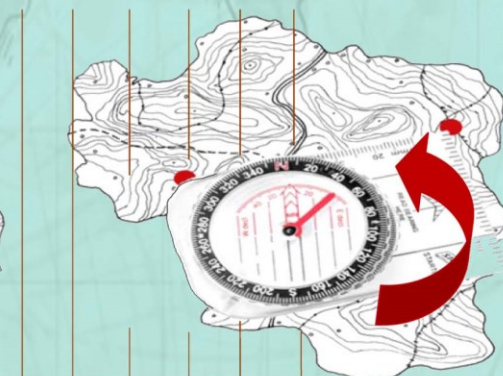
- 1.- Origin and destination must be joined with the compass auxiliary lines or the edge (1).
- 2.- Turn the rotating housing (2) until N-S lines (3) match with the lines of the map.
- 3.- All together, we turn around until the magnetic needle (4) matches with orienting arrow (5).
- 4.- We follow the direction pointed out by the direction travel arrow (6).

AN EXAMPLE

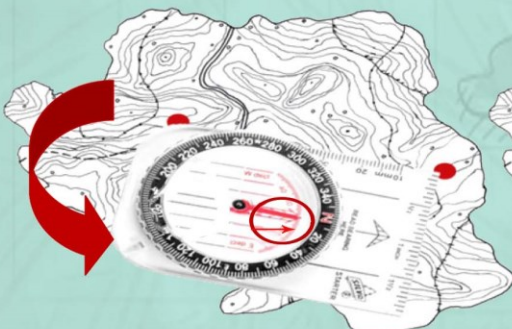
STEP 1: Origin and destination must be joined with the compass auxiliary lines or the edge.



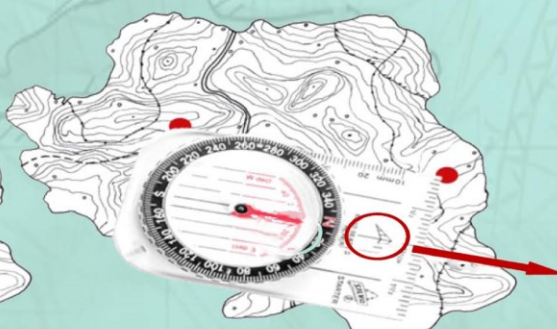
STEP 2: Turn the rotating housing until N-S lines match with N-S map lines.



STEP 3: All together, we turn around until the magnetic needle matches with orienting arrow.



STEP 4: We follow the direction given by the direction travel arrow.



UNIT 11. Hurdles

Hurdles

VARIANTS

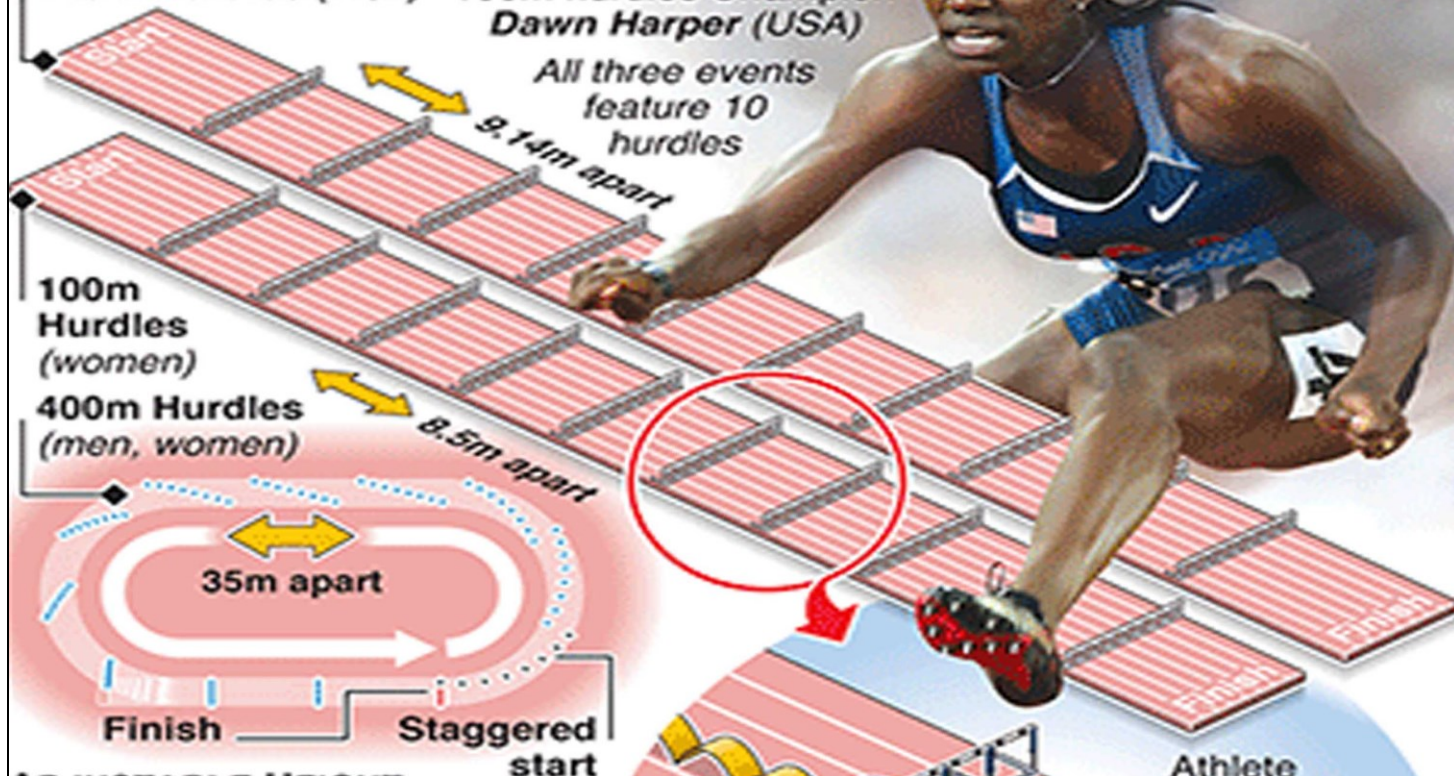
110m Hurdles (men)

Beijing Olympic
100m hurdles Champion
Dawn Harper (USA)

All three events
feature 10
hurdles

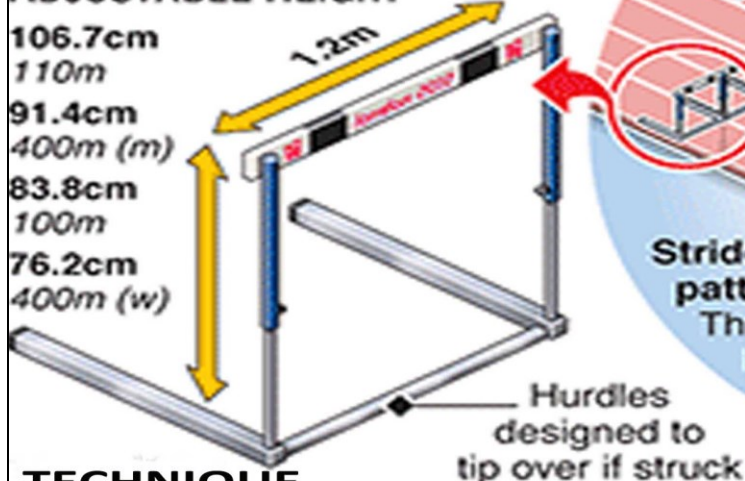
100m
Hurdles
(women)

400m Hurdles
(men, women)



ADJUSTABLE HEIGHT

106.7cm
110m
91.4cm
400m (m)
83.8cm
100m
76.2cm
400m (w)

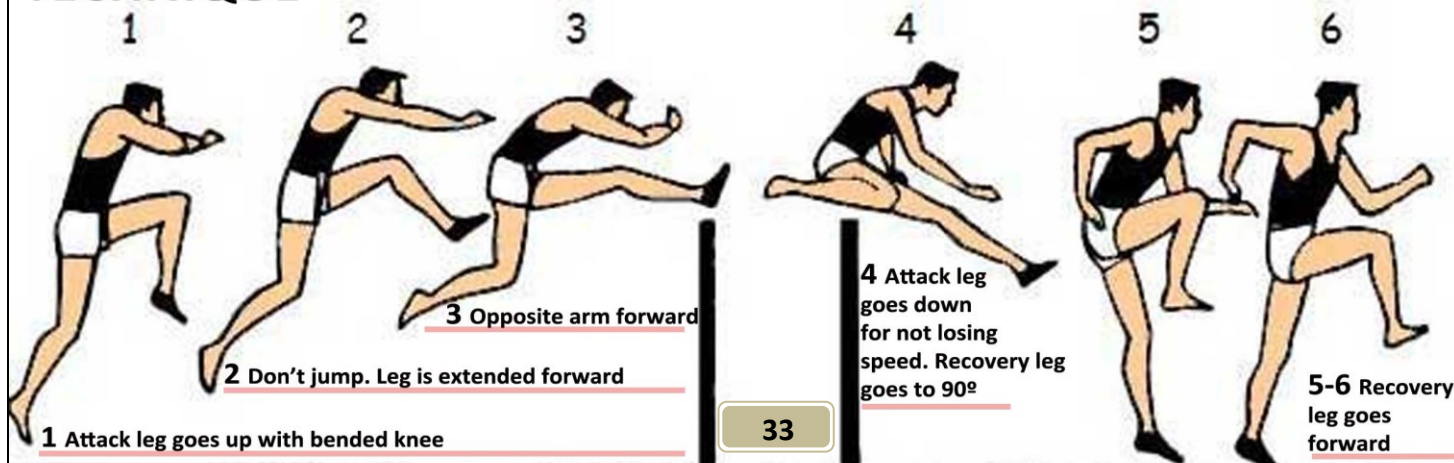


Stride pattern:

Three strides
between hurdles –
up to 13 in 400m

Athlete
must stay
in own lane

TECHNIQUE



UNIT 12. Kickball

under- standing kickball

Invented in the US during the World War II era, the soccer and baseball hybrid sport kickball is a game which continues to be played in playgrounds and schoolyards everywhere.

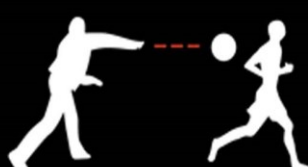
Children and adults enjoy the game for it's playful nature. Less competitive than more traditional sports, kickball provides an outlet where fun, exercise, and sportmanship can all thrive.

While the rules of the game may vary depending on the level of competition, playing location, or time given for game, these principles and guidelines can be applied to almost all variations of the sport.



pitching

A roll of the ball from the pitcher's mound to home plate with the purpose of being kicked by the batter. Ball must be thrown so that batter can kick it, else it's counted as a ball.



getting an out

A fly out, a force out, a strike out, an indian rubber and a tag out are different means in which the defense can stop the offense. Three outs means the end to half of an inning.



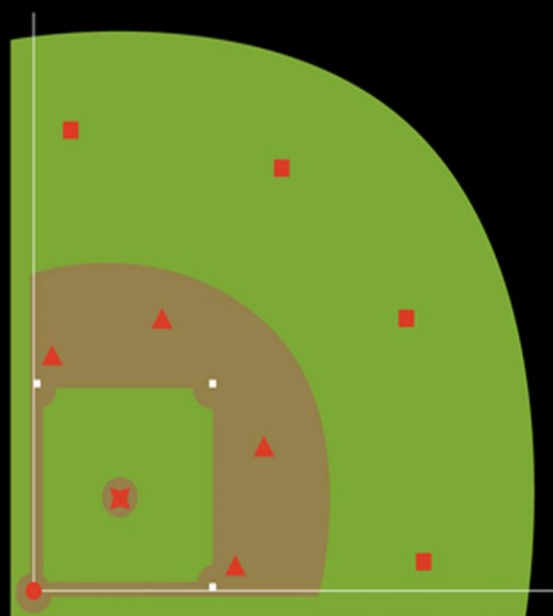
batting (kicking)

When up to bat, the batter may request a pitch from the pitcher. Once pitched, the ball can then be kicked anywhere on or behind home plate. Batter may also choose to bunt.



running

After you kick the ball, the batter must then successfully round the bases in order to score. All bases must be touched in order. No more than one runner may be on a base.



creating teams

In league games, teams must consist of at least four males and four females. In playground games, captains are chosen and must take turns alternating drafts until nobody is left.

pitcher

The pitcher plays in the center of the field on top of the pitcher's mound. The catcher plays at home plate and is responsible for returning all of the pitches to the mound.



bunting

A bunt is performed by just kicking the ball hard enough so that it goes just in front of the batter. The kick is light and only makes the ball bounce just a few feet in front of homebase.



strike out

Striking out occurs when the batter misses too many three of the pitches during his/her time at bat. The strike out counts as an out and the next batter comes up to the plate.

catcher

The catcher plays at home plate and is responsible for returning all of the pitches to the mound. The catcher must also be ready for when a runner tries to run home.

outfielders

The outfielders all play the furthest out in the field. They must catch as many fly balls as they can and get any outfield grounders back into the infield as quickly as possible.

infielders

The infielders consist of the first basemen, second basemen, short stop, and third basemen. They each cover their respected bases and do the best they can get runners out.

UNIT 13. First Aid

CARDIOPULMONARY RESUSCITATION

A life-saving technique everyone should know



HOW TO PERFORM

CPR

ON AN INFANT

If an infant appears to be unresponsive:

1 ASSESS THE SCENE



- Quickly check the area for safety hazards, you can't help anyone if you become a victim yourself.

2 CHECK THE VICTIM FOR A RESPONSE

- Tap the victim on the feet and shout to check for a response.



3 IF THE VICTIM IS UNRESPONSIVE

- Yell for help.
- Instruct a specific bystander to call



4 CHECK THE VICTIM FOR BREATHING

- Open the victim's airway.
- Gently tilt the victim's forehead back with one hand, and lift the chin with the other.



- Scan the victim's head and chest for signs of breathing.
- Do this for no more than 10 seconds.

Gasping or gurgling is NOT breathing and CPR should be performed immediately.

CPR - Cardiopulmonary Resuscitation

- The victim must be on a firm and flat surface and facing upwards

1 30 CHEST COMPRESSIONS

- Draw a line, with your hand, from the armpit to the center of the chest



- From one hand, use two fingers for compressions, push down to give 30 chest compressions in 18 seconds or less. It helps to count out loud.



- Push down hard and fast, 1 1/2 inches (or 4 centimeters) deep at the rate of at least 100 compressions per minute.
- Lift your hands slightly off the chest between each compression to allow for full chest re-coil.

2 GIVE 2 RESCUE BREATHS

- Ensure head is tilted back and the chin is lifted.



- Cover both the infant's mouth and nose with your mouth and give two small puffs of air.



- Blowing too hard can damage the infant's small lungs.
- Observe for signs of chest-rise and re-position if needed.

3 REPEAT STEPS 1 & 2 AND CONTINUE THIS PROCESS UNTIL:

- The victim begins breathing.
- Another trained responder arrives and is ready to take over.



- You are physically unable to continue.

After 5-cycles of CPR, if help is not available and the victim has not resumed breathing, call:

1-1-2

HOW TO PERFORM

HEIMLICH MANEUVER

ON AN ADULT



CHOKING

This maneuver should be used in case of choking and if the person is:

- not coughing
- unable to speak or breathe
- signaling for help, typically by holding their hands around their throat

First, if there is a bystander, have them call 112 for emergency help. If you are the only person present, begin first aid treatment:

- Get the person to stand up.
- Position yourself behind the person.
- Lean the person forward and give five blows to their back with the heel of your hand.
- Place your arms around their waist.
- Make a fist and place it just above the navel, thumb side in.
- Grab the fist with your other hand and push it inward and upward at the same time. Perform five of these abdominal thrusts.



- Repeat until the object is expelled and the person can breathe or cough on their own.

ON AN INFANT

This maneuver is done in the same spot but only with two fingers. The baby is inclined downwards.

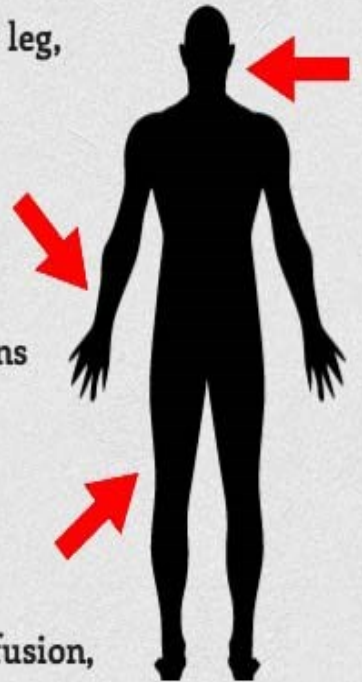


ON YOURSELF



What are the warning signs of a **Stroke?**

- ✓ **Weakness**
Sudden loss of strength or sudden numbness in face, arm, or leg, even if temporary
- ✓ **Headache**
Severe and unusual headache
- ✓ **Dizziness**
Sudden loss of balance, especially with any of the above signs
- ✓ **Vision problems**
Sudden trouble with vision, even if temporary
- ✓ **Trouble speaking**
Sudden difficulty speaking or understanding or sudden confusion, even if temporary



If you are having these symptoms or are in doubt,



call 112

Do not drive yourself to the hospital.

When you arrive by ambulance, the hospital will be contacted and a team with a neurologist will be waiting, with the equipment ready to begin treatment immediately.

When it comes to treating a stroke,

time is brain

UNIT 14. Doping



HOW DOES IT HELP?

The mainstream doping helps by **increasing your blood flow** or the **size and the strength of the muscles** or getting a **better swap** of oxygen and carbon dioxide or masking de pain.



TYPES OF DOPING

Androgens (improve muscle strength and endurance), **blood doping** (improves oxygen transport and athletic endurance), **peptide hormones** (increase bulk and strength), **stimulants** (increase blood flow and heart rate), **diuretics** (they mask doping), **narcotics and cannabinoids** (decrease the painful sensations of serious injuries).



CAN IT BE STOPPED?

Not always. Some advanced laboratories have more **knowledge and money** than the ones of anti-doping agencies.



SHOULD IT BE STOPPED?

Think about it and talk with your teacher during the lessons.

DOPING

It is the use of a substance to illegally improve athletic performance.

DANGERS OF USING DOPING



ANDROGENS

- Acne
- Liver Damage
- Breast tissue development in males
- Shrinking of the testicles and impotence
- Cessation of breast development in females



BLOOD DOPING

- Increased stress on the heart
- Blood clotting
- Strokes
- Heart attacks
- Pulmonary embolism

STIMULANTS

- Insomnia and anxiety
- Dependence and addiction
- Tremors
- Increased heart rate and blood pressure
- Risk of stroke, heart attack, and cardiac arrhythmia.



HORMONES

- Hypertension
- Heart attacks
- Thyroid problems
- Loss of vision
- Diabetes and tumours



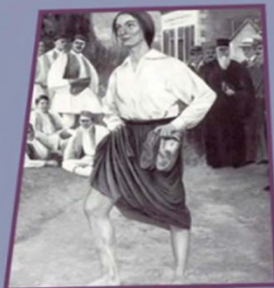
UNIT 15. Women and Sports

PIONEER SPORTSWOMAN

Women who changed sport history

1896 STAMATA REVITHI

She ran first Olympic's Games marathon



She wanted to run the marathon in 1896 Olympic Games, the first of the modern era, but the women were not allowed to compete.

As a protest, the next day she ran alone the 40 kilometers in 5 hours and 30 minutes, although her mark was not recognized.

KATHRINE SWITZER

1967

First woman to run a marathon with a race number

In 1967, the Boston Marathon admitted only male participants, so Kathrine signed up as "KV Switzer" and parties in the career as a common runner.

Reached the half way, one of the judges spotted her and jumped after her to try and stop her, but her coach and his partner prevented it.



BILLIE JEAN KING

She won Wimbledon men's doubles champion

Bobby Riggs, Wimbledon champion in the doubles category in 1939, was convinced that 34 years later he could win the current one champion, Billie Jean King (he was 55 and she was 29). The tennis player proved that the "superiority of man" that Riggs boasted was not true and defeated him without too much trouble.



1977

LUSIA HARRIS

Only woman selected for NBA 'draft'



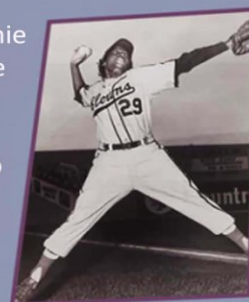
In 1977 NBA's draft edition, where each team chooses new players, the New Orleans Jazz chose Lusia Harris, the best player of the women's league. At the end, Harris had to refuse the team's offer because she was pregnant and could not join lip to workouts.

MAMIE JOHNSON

1953

Only woman that played in a male beisball league

Just because she was black, Mamie Johnson couldn't even play in the women's baseball league. So when she found out that the Indianapolis Clowns of the Negro League (the men's league that included black players) were looking for a new player, Johnson showed up to the tests and was chosen The new 'pitcher' of the team.



2001

JUTTA KLEINSCHMIDT

Only woman who won Dakar's Rally



After several years of trying, the German pilot became the first -and so far only- woman to win the Dakar Rally in 2001. He did it with a Mitsubishi, although the car brand used the triumph by Kleinschmidt pars promoting themselves with a macho slogan and derogatory: "If a woman can run the Dakar with our car, you can too."

UNIT 16. Gaelic Football

GAELIC FOOTBALL



HISTORY

- Comes from the ancient Irish football known as Caid. In 1597.
- It was founded in November 1st 1884 by Michael Cusack.
- It started being popular at the end of XIX due to the creaci3n of the G.A.A (Gaelic Athletic Association).
- Now the president of G.A.A is Aogán 3 Fearghail.
- GAA All-Stars refer to a group of elite Gaelic football players who are selected each year for their outstanding performances during the respective seasons.

OBJECTIVE AND DEVELOPMENT

- This is a team sport that mixes football and rugby. The objective of this game is to score points by kicking or hitting the ball with your hands or feet and putting it into the opponent's goal (3 points) or between the upper part of the "H" shape (1 point) with your feet. The team that finishes the match with most points wins.



FIELD AND EQUIPMENT

- It's used a ball similar to football, but in this case is smaller and heavier. Its circumference goes from 68 to 75 cm, and weights 400gr aprox.
- The field measures 80-90x130-145m.
- There are two goals located in the wide part of the field. They have an "H" shape. Its width is 6,4m and the stickers height 4,88m.
- In each team is required: 1 goalkeeper and 14 player each one with its own function and position.

STRATEGIES WITH THE BALL

- Punch the ball with your clenched fist to pass it to a teammate.
- Kick the ball with your feet to pass it to a teammate or to score a goal.
- Toe-tap: kick the ball with your feet and capture it again with your hands.
- Bounce: throw the ball with your hands to the field and capture it again as well with your hands.



RULES

- You can only run five steps, then you must pass the ball to another player or bounce/"toe tap" it if you want to continue running with the ball.
- You can only bounce the ball twice in succession.
- You can't pick the ball directly from the ground with your hands. You must lift the ball with your feet before taking it with your hands.
- Is not allowed hitting, grabbing or pushing.
- Played in two halves of 30-35 minutes with around 15 minutes break.
- There are 15 substitutes and it possible to make up to 5 player changes.
- You can catch and block the ball in the air to change possession.



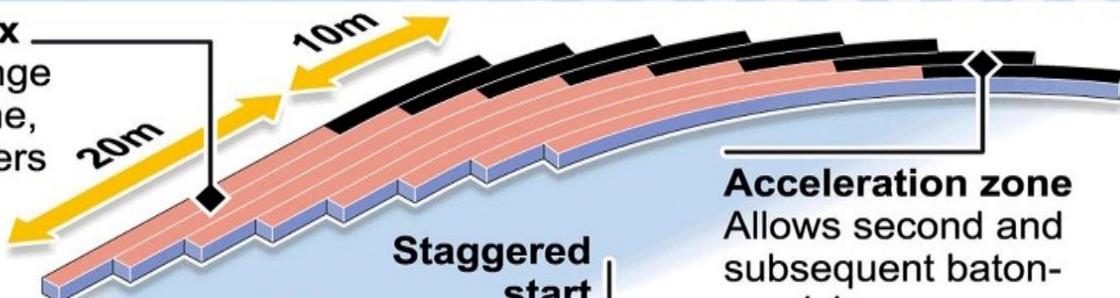
TEMA 17. Relays

Relay Olympic Stadium



Changeover box

Baton must change hands within zone, after which runners must stay within their lanes until course is clear



Acceleration zone

Allows second and subsequent baton-receiving runners to get up to speed

Staggered start

Finish

4 x 100m handover points

Running order

- 1** Good starter, runs opening 100m **bend**
- 2** Good **straight** runner
- 3** Good **bend** runner
- 4** Anchor leg – 100m **sprint** under pressure



Baton
Aluminium tube

Length:
28-30cm

Weight: 50g

Women's
4 x 100m
anchor and
London
Olympics
relay gold
medallist
**Carmelita
Jeter (USA)**

41

4 x 100m				4 x 400m		
Olympic records	🇯🇲 Jamaica	2012	36.84	United States	2008	2:55.39
	🇺🇸 United States	2012	40.82	USSR	1988	3:15.17
World records	🇯🇲 Jamaica	2012	36.84	United States	1993	2:54.29
	🇺🇸 United States	2012	40.82	USSR	1988	3:15.17

3^o ESO

WORKBOOK



TASK 1. The Heart Rate

NAME AND SURNAME _____

CLASS GROUP _____

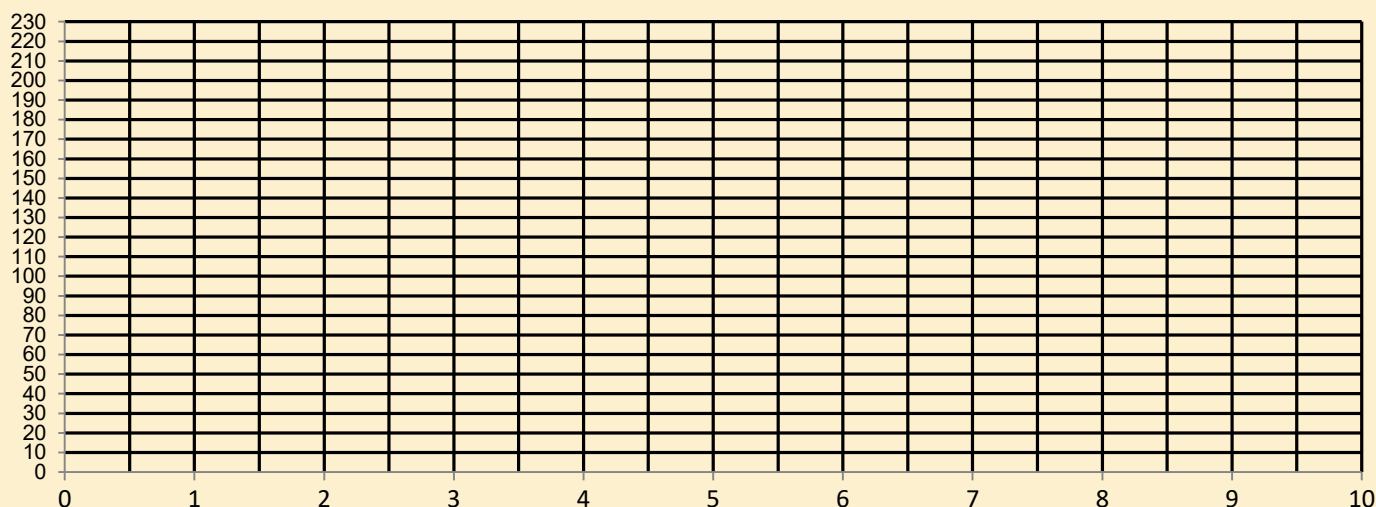
QUESTIONS

FOLLOW THE INSTRUCTIONS OF THE DATA TABLE AND TAKE YOUR HEART RATE IN EACH ACTIVITY.



NUMBER	EXERCISE	BPM	NUMBER	EXERCISE	BPM
1	PO (RESTING)		6	RUFFIER - DICKSON TEST	
2	WALKING FAST		7	P1	
3	1 MIN LATER		8	P2	
4	5 MIN OF S.R.		9	45s - 1min OF ANAEROBIC RACE	
5	3 MIN LATER		10	3 MIN LATER	

6 SECONDS X 10



RUFFIER-DICKSON TEST



PO
HR
at resting



P1
30 squats
in 45 sec



P2
HR
1 min later

$$\frac{(P0 + P1 + P2) - 200}{10}$$

10

DO IT HERE

-0	EXCELENT FITNESS
1 to 5	VERY GOOD FITNESS
6 to 10	AVERAGE FITNESS
11 to 15	NOT GREAT
+16	BAD

ANSWER THE NEXT QUESTIONS

(Firstly, you must choose your level and fill in the gasps)

LOW LEVEL		AVERAGE LEVEL		HIGH LEVEL	
					
MHR=226-AGE	MHR=220-AGE	MHR=226-AGE	MHR=220-AGE	MHR=226-AGE	MHR=220-AGE
TARGET HEART RATE ZONE	TARGET HEART RATE ZONE	TARGET HEART RATE ZONE	TARGET HEART RATE ZONE	TARGET HEART RATE ZONE	TARGET HEART RATE ZONE
50% =	50% =	60% =	60% =	60% =	60% =
75% =	75% =	75% =	75% =	85% =	85% =

1.- WHAT IS YOUR M.H.R. THIS COURSE AND THE TARGET HEART RATE ZONE FOR YOU TO DEVELOP GOOD HEALTH? (YOU HAVE TO WRITE THE OPERATIONS DOWN SO THAT THE ANSWER IS RIGHT.)

2.- IN ACTIVITIES 4 AND 9, HAVE YOU MOVED WITHIN THE MOST HEALTHY BEATS INTERVAL FIGURED OUT IN THE PREVIOUS QUESTIONS? IF NOT, WHY WAS THAT WAY? (ANSWER BASED ON QUESTIONS 1).

3.- WHAT LEVEL OF FITNESS DO YOU HAVE NOWADAYS BASED ON RUFFIER-DICKSON TEST? WHY DO YOU THINK IT IS? (LOOK FOR CAUSES IN YOUR DAILY HABITS).

4.- WRITE DOWN 4 FACTORS STUDIED IN PREVIOUS YEARS THAT CHANGE THE HR.

Name and surname _____
Class Group _____

FINAL MARK

POINTS

1.- 4 points. 2.- 2 points. 3.- 2 points. 4.- 1 point.
(Fill in the graphic correctly will add 1 point).

TASK 2 THE SPECIFIC WARM UP

NAME AND SURNAME _____

CLASS GROUP _____

QUESTIONS

DRAW ON THIS TABLE A SPECIFIC WARM UP. DO NOT CHOOSE ANY EXERCISE DRAWN IN THE LESSON. SEARCH THEM ON THE INTERNET OR BASED YOUR ANSWER ON EXERCISES THAT YOU KNOW.

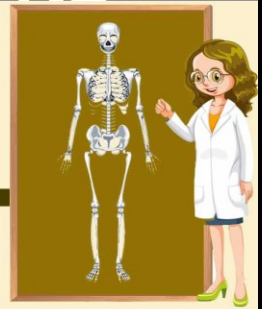


1 	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

TASK 3 THE SKELETAL AND JOINT SYSTEMS

NAME AND SURNAME

CLASS GROUP



QUESTIONS

1.- WRITE DOWN THE NAME OF THE BONE AND WHICH TYPE IT IS.
(1 POINT EACH BONE).

The image displays three anatomical diagrams of the human skeleton, labeled 1, 2, and 3, showing different views: posterior, anterior, and lateral. Each diagram is accompanied by a label box with a pink top half and a blue bottom half, connected by a line to a specific bone or joint. The labels are as follows:

- Diagram 1 (Posterior View):**
 - Label 1: Occipital bone
 - Label 2: Cervical vertebrae
 - Label 3: Thoracic vertebrae
 - Label 4: Lumbar vertebrae
 - Label 5: Sacrum
 - Label 6: Coccyx
 - Label 7: Scapula
 - Label 8: Humerus
 - Label 9: Radius
 - Label 10: Ulna
 - Label 11: Carpals
 - Label 12: Metacarpals
 - Label 13: Phalanges
 - Label 14: Pelvis
 - Label 15: Femur
 - Label 16: Patella
 - Label 17: Tibia
 - Label 18: Fibula
 - Label 19: Tarsals
 - Label 20: Metatarsals
 - Label 21: Phalanges
- Diagram 2 (Anterior View):**
 - Label 1: Frontal bone
 - Label 2: Nasal bone
 - Label 3: Maxilla
 - Label 4: Mandible
 - Label 5: Zygomatic bone
 - Label 6: Hyoid bone
 - Label 7: Thyroid cartilage
 - Label 8: Cricoid cartilage
 - Label 9: Trachea
 - Label 10: Sternum
 - Label 11: Ribs
 - Label 12: Costal cartilage
 - Label 13: Xiphoid process
 - Label 14: Pelvis
 - Label 15: Femur
 - Label 16: Patella
 - Label 17: Tibia
 - Label 18: Fibula
 - Label 19: Tarsals
 - Label 20: Metatarsals
 - Label 21: Phalanges
- Diagram 3 (Lateral View):**
 - Label 1: Frontal bone
 - Label 2: Nasal bone
 - Label 3: Maxilla
 - Label 4: Mandible
 - Label 5: Zygomatic bone
 - Label 6: Hyoid bone
 - Label 7: Thyroid cartilage
 - Label 8: Cricoid cartilage
 - Label 9: Trachea
 - Label 10: Sternum
 - Label 11: Ribs
 - Label 12: Costal cartilage
 - Label 13: Xiphoid process
 - Label 14: Pelvis
 - Label 15: Femur
 - Label 16: Patella
 - Label 17: Tibia
 - Label 18: Fibula
 - Label 19: Tarsals
 - Label 20: Metatarsals
 - Label 21: Phalanges

2.- WRITE DOWN WHICH BONES ARE LINKED IN THE FOLLOWING JOINTS AND WHAT TYPE OF JOIN IT IS.

Body Part	Injury Type	Frequency (Approximate)
KNEE	TYPE 1	40
	TYPE 2	20
ELBOW	TYPE 1	30
	TYPE 2	20
SHOULDER	TYPE 1	30
	TYPE 2	20
ANKLE	TYPE 1	30
	TYPE 2	20
HIP	TYPE 1	30
	TYPE 2	20

TASK 4 THE MUSCULAR SYSTEM

NAME AND SURNAME

CLASS GROUP

QUESTIONS

1.- USING ARROWS, MARK THE FOLLOWING MUSCLES IN THE PICTURES.
(0.5 POINTS EACH MUSCLE).



DELTOID

TRAPEZIUS

LATISSIMUS DORSII

TRICEPS BRACHII

PECTORALIS MAJOR

BICEPS BRACHII

LUMBAR
SQUARAE

SUPINATORS

EXTERNAL
OBLIQUE

PALMARIS



RECTUS
ABDOMINIS
(ABS)

SEMI-TENDINOSUS

ILIAC
PSOAS

HAMSTRINGS

CALVES

SOLEUS

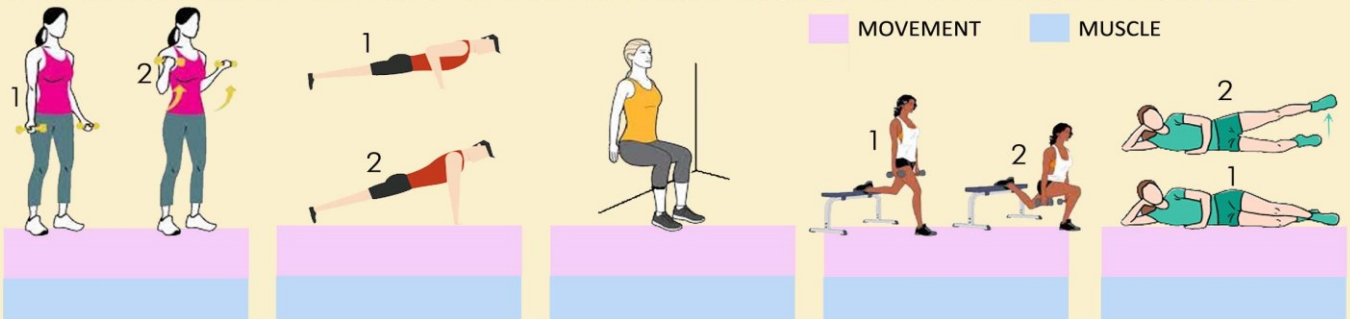
GLUTEUS MAXIMUS
(BOTTOM)

ADDUCTOR

QUADRICEPS

SARTORIUS

2.- WRITE THE NAME OF THE MOVEMENT THAT THE PICTURE IS DOING AND WHICH MUSCLE IS BEING USED.



3.- WHAT ARE THE MUSCULAR SYSTEM'S FUNCTIONS AND WHAT TYPES OF MUSCLES ARE THERE?

FUNCTIONS

TYPES OF MUSCLES

TASK 5 STAMINA

NAME AND SURNAME _____

CLASS GROUP _____

QUESTIONS



WRITE DOWN THE BPMs TAKEN IN THE RECTANGLE AFTER DOING THE ACTIVITY. _____



WORKOUT: 2 X 8 minutes of aerobic stamina

	Method 1				Recovery			Method 2				Recovery		
	2'	4'	6'	8'	1'	2'	3'	2'	4'	6'	8'	1'	2'	3'
BPM														

QUESTIONS

1.- WHAT TWO METHODS OF STAMINA TRAINING HAVE WE USED AND WHAT TYPE OF SYSTEMS DO THEY BELONG TO?

2.- ¿DO YOU THINK THAT THE LOAD OF TRAINING HAS BEEN INTENSE OR MILD FOR YOU? (REASON THE ANSWER).

3.- IF IN METHOD 1 YOU REACHED ANAEROBIC STAMINA LEVELS, IS IT A GOOD SIGN OF IS HEALTH? (REASON IT).

4.- CLASSIFY THESE TRAINING METHODS DEPENDING ON WHAT TRAINING SYSTEM BELONG TO.

- 1.- 2x1000M R: 80BPM.
- 2.- 3x10x100M TO 180PPM R: 120BPM AND 5 MIN.
- 3.- 25 MIN RUNNING AT THE SAME PACE.
- 4.- 25 MIN CHANGING THE PACE .
- 5.- 2x15x100 TO 180BPM R: 120BPM AND 5 MIN.
- 6.- 1x2000M R: 80BPM.

- | | |
|-----------|-----------|
| 1.- _____ | 4.- _____ |
| 2.- _____ | 5.- _____ |
| 3.- _____ | 6.- _____ |

5.- ANSWER AS TRUE (T) OR FALSE (F) THE NEXT SENTENCES A WRONG ANSWER WILL SUBTRACT A CORRECT ONE).

- 5.1.- TRAINED PEOPLE IN STAMINA HAVE MORE HEART RATE AT RESTING _____
- 5.2.- NO-TRAINED PEOPLE IN STAMINA HAVE MORE BREATHING RATE _____
- 5.3.- BETWEEN INTERVAL TRAINING REPETITIONS, WE MUST HAVE 120 BPM OR LESS _____
- 5.4.- BASED ON THE PULSE, FARTLEK IS MORE INTENSE THAN REPETITIONS METHOD _____

TASK 6 STRENGTH

NAME AND SURNAME _____

CLASS GROUP _____



QUESTIONS

1.- WRITE UNDER THE DRAWING THE NAME OF THE CONTRACTION AND THE JOINT MOVEMENT THAT ARE DONE.

		MOVEMENT		CONTRACTION	

2.- WRITE UNDER THE DRAWING THE NAME OF THE MEAN OF STRENGTH TRAINING THAT IS BEING DONE.

TASK 7 FLEXIBILITY

NAME AND SURNAME

CLASS GROUP



QUESTIONS

1.- WRITE BELOW OF EACH EXERCISE

A.- FLEXIBILITY SUBCOMPONENT DEVELOPED.

B.- WHICH METHOD IS USED.

C.- WHICH MUSCLE OR JOINT DOES THE MOVEMENT.

EXAMPLE			
			
A Muscular elasticity	A	A	A
B Active-static	B	B	B
C Abdominal	C	C	C
			
A	A	A	A
B	B	B	B
C	C	C	C
			
A	A	A	
B	B	B	
C	C	C	

TASK 8. Speed

NAME AND SURNAME

CLASS GROUP



SPEED. QUESTIONS

1.- DESCRIBE THE TYPES OF SPEED.

ANSWER

2.- CLASSIFY THESE SENTENCES AS **T** OR **F**.

2.1.- RELAY RACE IMPROVES REACTION SPEED WHILE DELIVERING THE BATON.

2.2.- STAMINA SPEED NEEDS THREE MINUTES OF RECOVERY BETWEEN SETS.

2.3.- STANDING JUMP TEST IMPROVES GESTURAL SPEED.

2.4.- WHITE FIBERS ARE FASTER THAN THE RED ONES.

2.5.- SPEED NEEDS TO BE TRAINED AT 85-100% OF THE MAXIMUM INTENSITY.

4.- WRITE OTHER FOUR EXAMPLES OF SPEED GESTURES AND WHICH TYPE OF SPEED IS USED.

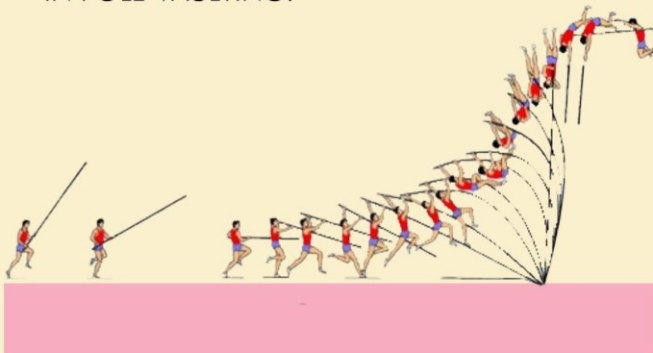
1

2

3

4

3.- EXPLAIN WHAT TYPES OF SPEED ARE NEEDED IN POLE-VAULTING.



5.- EXPLAIN WHAT BASIC PHYSICAL ATTRIBUTES ARE RELATED TO HEALTH AND WHICH ONES TO COMPETITION. FINALLY, SEARCH ON THE INTERNET WHAT MUSCULAR INJURIES SPEED CAN CAUSE.

TASK 9. Postural Attitude

NAME AND SURNAME

CLASS GROUP

QUESTIONS



1.- DRAW FOUR FLEXIBILITY EXERCISES TO REDUCE LUMBAR PAIN.



--	--	--	--

NAME OF THE INJURY:

2.- DRAW FOUR STRENGTH EXERCISES IN ORDER TO PREVENT THE FORMER INJURY.

--	--	--	--

3.- WRITE DOWN FIVE TIPS TO HELP EASE YOUR BACK PAIN.

1	
2	
3	
4	
5	

4.- CHOOSE THREE WRONG DAILY POSTURES AND WRITE PROBLEMS THEY CAUSE AND THE SOLUTIONS.

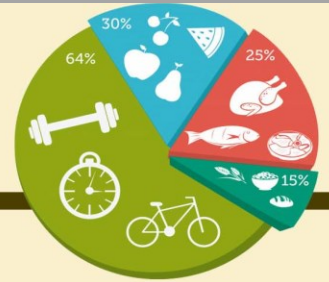
1	2	3

TASK 10. Balanced Diet

NAME AND SURNAME

CLASS GROUP

QUESTIONS



1.- CLASSIFY THESE FOODS BASED ON THE GROUP TO WHICH THEY BELONG.













2.- ANSWER AS TRUE OR FALSE (EACH WRONG ANSWER WILL SUBTRACT ONE CORRECT).

- BREAD, RICE, CEREALS AND PASTA IS WHAT WE SHOULD EAT MOST OF THE WEEK.
- IT IS BETTER TO EAT LIGHT AND LOW FAT FOOD IN ORDER TO LOSE WEIGHT.
- THE FUNCTION OF THE LIPIDS IS TO HELP GET ENERGY.
- IT IS MANDATORY TO DRINK TWO LITERS OF WATER A DAY.
- CARBOHYDRATES SHOULD PROVIDE 50% OF THE TOTAL DIET

3.- QUOTE THREE FRAUDULENT DIETS AND THE DANGERS THAT THEY CARRY.

4.- SEARCH ON THE INTERNET ANOTHER DIFFERENT FRAUDULENT DIET AND ITS DANGERS.

5.- FIND YOUR BMI. THEN, WRITE FIVE CAUSES AND FIVE CONSEQUENCES OF OVERWEIGHT.

BMI
BODY MASS
INDEX

$\frac{\text{WEIGHT}}{\text{HEIGHT}^2}$

5.1.- WHAT IS YOUR BMI THIS YEAR?

TASK 11. Eating Disorders

NAME AND SURNAME

CLASS GROUP



QUESTIONS

1.- **T**RUE OR **F**ALSE? (Each incorrect question will subtract a correct one). If it is false, write the correct answer in a short way (4 points).

1.1.- Bigorexia is an obsession with so-called healthy food.

Correct answer: _____

1.2.- Diabetes and hypertension are typical effects of orthorexia.

Correct answer: _____

1.3.- The average age of onset of bulimia is 15 years.

Correct answer: _____

1.4.- High HC/protein and low fat diet is typical of bulimia.

Correct answer: _____

1.5.- Loss of menstrual cycles is typical of anorexia.

Correct answer: _____

1.6.-Fasting and purging are typical of bulimia.

Correct answer: _____

1.7.- Feeling superior to others is typical of vigorexia.

Correct answer: _____

1.8.- Taking medication to lose weight is typical of bulimia.

Correct answer: _____

1.9.- Compulsive binge eating (pigging out) is typical of obesity.

Correct answer: _____

1.10.- Hypothyroidism is associated with orthorexia .

Correct answer: _____

2.- Imagine that you have a friend who never eats in company and has yellow teeth. What eating disorder could he have? What other symptoms should you pay attention at to confirm it? Which could be the consequences if the disorder is not treated? (2 points)

3.- Obese people often suffer ridicule from others. If a friend came to you for advice because he wants to lose weight, what would you tell him about his eating habits? What kind of exercise do you would you recommend? (2 points)

4.- How would you prevent bulimia if you find out that a person close to you shows signs of having it?

TASK 12. Orienteering

NAME AND SURNAME

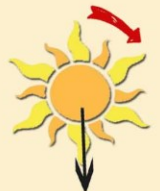
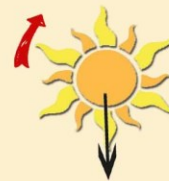
CLASS GROUP

QUESTIONS

1.- WRITE AROUND THIS WIND ROSE THE MAIN AND SECONDARY CARDINAL POINTS (1 POINT).



2.- WRITE DOWN WHICH CARDINAL POINT IS POINTED (2 POINTS).



3.- ANSWER THE NEXT QUESTIONS (3 POINTS).

3.1.- YOU ARE LOOKING AHEAD THE GREEN PORTION OF THE MOSS. WEST IS LOCATED AT YOUR RIGHT SIDE, AT YOUR LEFT, IN FRONT OF YOU OR BEHIND YOUR BACK?

3.2.- IT IS 12 PM AND THE SUN IS LOCATED AT YOUR RIGHT SIDE. WHICH CARDINAL POINT IS LOCATED IN FRONT OF YOU?

3.3.- AT DAWN, WHICH CARDINAL POINT IS LOCATED AT YOUR LEFT SIDE IF YOU ARE LOOKING THE SUN AHEAD?

3.4.- IN THE SUNSET, IF YOU ARE FACING THE SUN, WHICH CARDINAL POINT DO YOU HAVE AT YOUR LEFT SIDE?

4.- ANSWER AS TRUE OR FALSE THE NEXT QUESTIONS (2 POINTS).

4.1.- NO MATTER THE TIME, THE NORTH STAR ALWAYS SHOWS THE NORTH _____

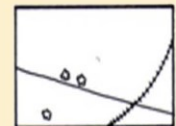
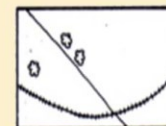
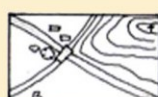
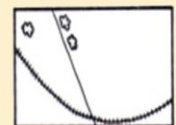
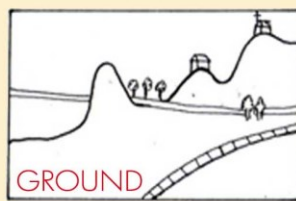
4.2.- ON EARTH, THE COURSE OF THE SUN IS ALWAYS: E-S-W. _____

4.3.- AT 12 PM, THE SUN SHOWS A DIFFERENT CARDINAL POINT DEPENDING ON THE HEMISPHERE WE ARE. _____

4.4.- THE NORTH STAR IS LOCATED IN THE GREAT BEAR CONSTELLATION. _____

4.5.- AT 9 PM IN THE SUMMER, THE SUN ALWAYS SHOWS THE E. _____

5.- CIRCLE WHICH MAPS ARE IN THE RIGHT DIRECTION REGARDING THE GROUND (2 POINTS).



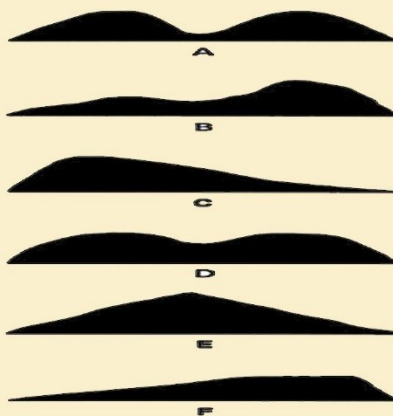
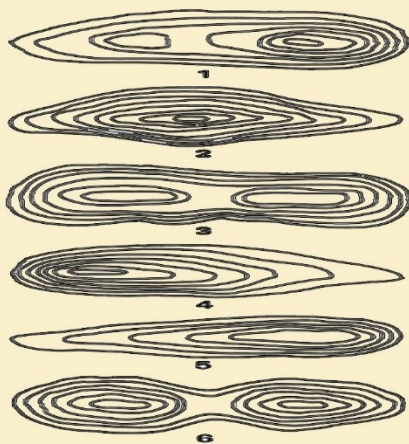
NAME AND SURNAME

CLASS GROUP



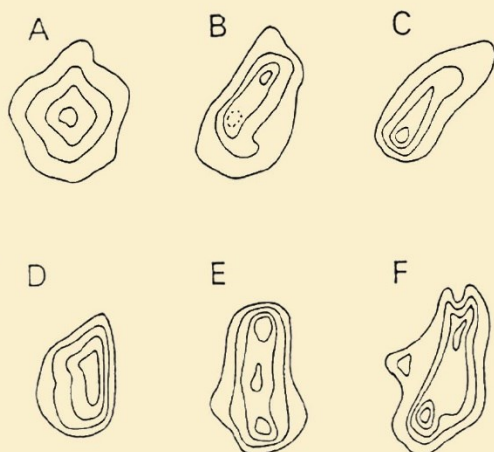
QUESTIONS

1.- (1 POINT) MATCH THE CURVES OF THE GROUND WITH ITS REPRESENTATION THROUGH CONTOUR LINES.



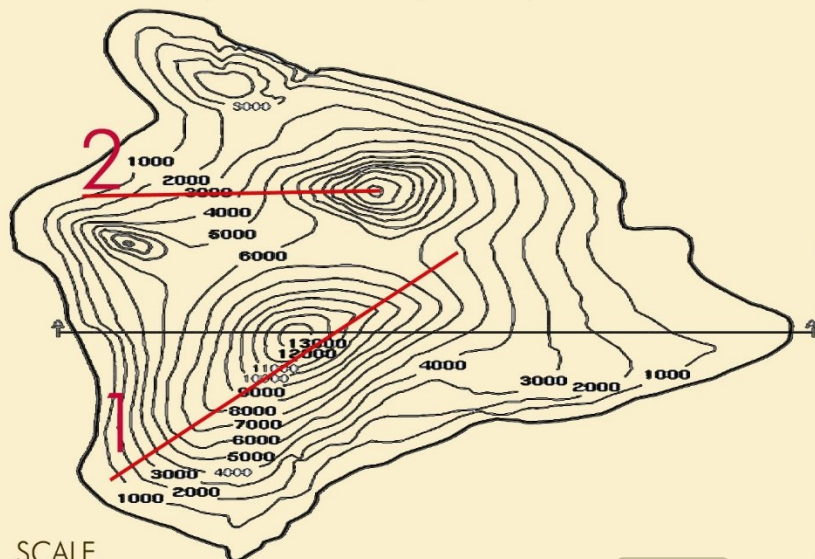
- 1 ☐
- 2 ☐
- 3 ☐
- 4 ☐
- 5 ☐
- 6 ☐

2.- (1 POINT) MATCH THE DESCRIPTION WITH ITS CONTOUR LINE.



- 1.- IT IS BETTER NOT TO ASCEND THIS HILL BY THE E _____
- 2.- NORTH AND SOUTH FACES OF THIS HILL HAVE A GREAT SLOPE _____
- 3.- THE SLOPE IS THE SAME EVERYWHERE _____
- 4.- THERE IS A VALLEY TO SE _____
- 5.- NO FACE DOES NOT HAVE TOO MUCH SLOPE _____
- 6.- THIS HILL HAS TWO TOPS. THE SOUTHERN IS HIGHER _____

3.- (2 POINTS) FIND THE DISTANCES IN KM OF THESE TWO PATHS (Write down the operations).



SCALE
1:50000

TASK 13. First Aid

NAME AND SURNAME

CLASS GROUP



QUESTIONS

1.- DESCRIBE HOW TO PERFORM THE HEIMLICH MANEUVER.



2.- DESCRIBE THE CPR.

3.- WHAT ARE THE SIGNS OF A STROKE?

TASK 14. Doping

NAME AND SURNAME

CLASS GROUP



QUESTIONS

1.- WHICH DRUG IS USED THE MOST FOR BUILDING MASS AND STRENGTH?

ANSWER

2.- CLASSIFY THESE SENTENCES AS **T** OR **F**.

2.1.- CANNABINOIDS ARE USED FOR RELAXING BLOOD VESSELS.

☐

2.2.- AMPHETAMINES IMPROVE MASS BUILDING.

☐

2.3.- PROTEIN HORMONES MASK PAIN OR AN INJURY.

☐

2.4.- BLOOD DOPING INCREASE OXYGEN DELIVERY.

☐

2.5.- SWIMMERS NORMALLY USE ANABOLIC STEROIDS.

☐

3.- WRITE FIVE SOCIAL DANGERS OF DOPING.

ANSWER

4.- WRITE FIVE HEALTH DANGERS OF DOPING.

ANSWER

5.- SEARCH ON THE INTERNET THREE FAMOUS CASES OF DOPING AND WHAT WERE THEIR PUNISHMENT.

TASK 15. Women and Sports

NAME AND SURNAME

CLASS GROUP

QUESTIONS



1.- SEARCH ON THE INTERNET FIVE WOMAN WHO HELP TO CHANGE SPORTS. NAME THEM AND WRITE WHAT WERE THEIR ACHIEVMENTS.

2.- WHY DO YOU THINK THAT FEMALE SPORTS ARE LESS APPRECIATED THAN MALE SPORTS? WRITE CAUSES, CONSEQUENCES AND SOME SOLUTIONS.

EXERCISES BANK

FLEXIBILITY

CALVES

1



HAMSTRINGS

1



QUADRICEPS

1



ADUCTORS

1



GLUTEUS

1



2



2



2



2



OBLIQUES

1



3



VERTEBRAL SPINE

1



ILIAC PSOAS

1



2



RECTUS ABDOMINUS

1



TRICEPS

1



2



EXERCISES BANK

TRAIN INSANE
OR REMAIN
THE SAME

STRENGTH

CALVES



LUMBAR



RECTUS ABDOMINUS



QUADRICEPS



HAMSTRINGS AND GLUTEUS



PELVIC WAIST



OBLIQUES



TRICEPS



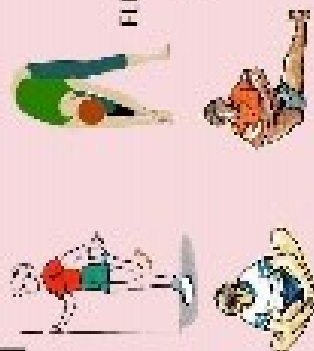
BICEPS



ENTRENAMIENTO (LUNES)

OBJETIVO: desarrollo de la flexibilidad y de la fuerza resistencia (con aumento del tono muscular).

1 CALENTAMIENTO



FLEXIBILIDAD
de
piernas



FLEXIBILIDAD de tronco

FLEXIBILIDAD de brazos

2 FUERZA RESISTENCIA

Ejercer la fuerza con repeticiones
a 90°

2.1



- 20 repeticiones
- Descanso de 20 seg.
- 20 repeticiones
- 2 series de 20 o levantar
a la espalda 2x20 rep. D: 20"



2.2

11 serie de 20 o levantar
a la espalda 1x15 rep. D: 20"



2.3

11 serie de 15 o levantar
a la espalda 1x15 rep. D: 20"



2.4

- 20 sentadillas
- 8-10 fondos de brazos
- 20 sentadillas
- 8-10 fondos de brazos
- 20 sentadillas
- 8-10 fondos de brazos
- Descanso de 20 seg. entre
ejercicios.

3x20s 20ft. D: 20"



2.5

- 20 zancadas
- 15 lumbares subiendo a o marco
- 20 zancadas
- 15 lumbares subiendo a o marco
- 20 zancadas
- 15 lumbares subiendo a o marco
- Descanso de 20 seg. entre
ejercicios.

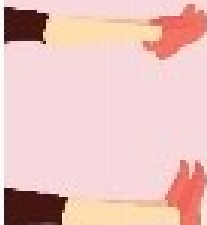
3x20s-20ft. D: 20"



2.6

- 20 repeticiones
- Descanso de 20 seg.
- 20 repeticiones
- Descanso de 20 seg.
- 20 repeticiones
- Descanso de 20 seg.

Codo o rodilla
cambiar



2.7

- 3x20 repeticiones
- 20 repeticiones de gamelo
- Descanso de 20 seg
- 12 repeticiones de actividades...



2.8

- 3x10 repeticiones
- 10 repeticiones de cadera
- Descanso de 20 seg.
- 10 repeticiones de cadera...



- 3x10 repeticiones

1 CARRERA CONTINUA



SESIÓN 1: 3x5 min de carrera continua (c.c.)

SESIÓN 5: 2x15 min de carrera continua (c.c.)

SESIÓN 2: 2x8 min de c.c.

SESIÓN 6: 1x20 min de c.c.

SESIÓN 3: 2x10 min de cc.

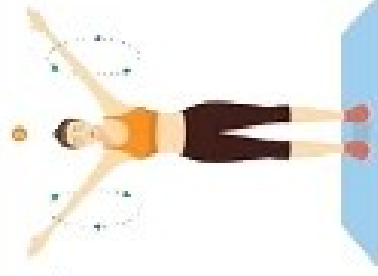
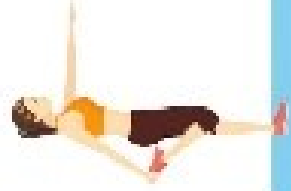
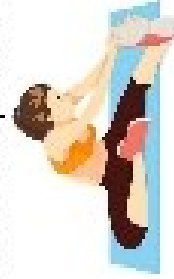
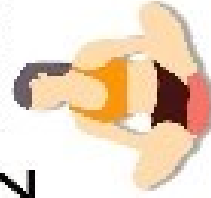
SESIÓN 7: 1x25 min de cc.

SESIÓN 4: 3x8 minutos de c.c.

SESIÓN 8: 1x30 minutos de c.c.

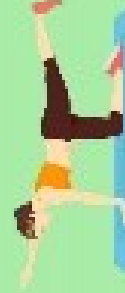
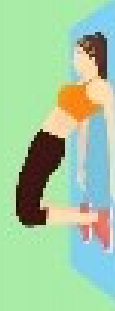
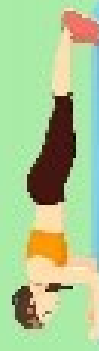
2

FLEXIBILIDAD. Mantener cada ejercicio un mínimo de 30 segundos respirando suavemente.



3

CORE. Mantener cada ejercicio un mínimo de 30 segundos.

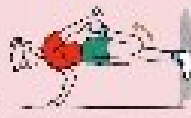


ENTRENAMIENTO (JUEVES)

OBJETIVO: desarrollo de la fuerza, resistencia y flexibilidad con aumento del tono muscular.

64

1 CARRERA CONTINUA, 8 -10 minutos



FLEXIBILIDAD
de
piernas



FLEXIBILIDAD de tronco

FLEXIBILIDAD de brazos

2

HIIT. Ejercicios al 90% (rápidos, pero no al máximo). 30 segundos de trabajo y 10 de descanso. Descansar 3 minutos y repetir.



NORMAS E INFORMACIONES DEL DEPARTAMENTO

1. NORMAS DE CONVIVENCIA

1. COMPAÑERISMO Y PROFESORADO: RESPETO A LOS COMPAÑEROS Y AL PROFESOR. SE VALORARÁ POSITIVAMENTE EL COMPAÑERISMO, GENEROSIDAD CON LOS QUE TIENEN DIFICULTADES, ACTITUDES DEMOCRÁTICAS Y SOLIDARIAS.
2. MATERIAL: RESPETO AL MATERIAL DE EDUCACIÓN FÍSICA. EL MAL USO POR PARTE DEL ALUMNADO SUPONDRÁ UNA SANCIÓN DISCIPLINARIA COMO LA REPOSICIÓN DE DICHO MATERIAL.
3. PUNTUALIDAD: EL ALUMNADO DEBERÁ ASISTIR PUNTUALMENTE A LAS SESIONES, VALORÁNDOSE NEGATIVAMENTE UNA IMPUNTUALIDAD RECURRENTE.

2. VESTIMENTA

VESTIMENTA NECESARIA. LA INDUMENTARIA BÁSICA Y NECESARIA ES ROPA DE DEPORTE QUE PERMITA REALIZAR TODAS LAS ACTIVIDADES PROPUESTAS EN LA SESIÓN. CONCRETAMENTE:

- a PARTE SUPERIOR: CAMISETA DE MANGA CORTA, LARGA O SIN MANGAS O TOPS DEPORTIVOS.
- b PARTE INFERIOR: PANTALÓN LARGO O CORTO DE CHÁNDAL. MALLAS DEPORTIVAS.
- c CALZADO: ZAPATILLAS ADECUADAS, CORRECTAMENTE ATADAS, ASÍ COMO EL USO DE CALCETINES.
- d ASEO: SE PERMITIRÁ AL ALUMNADO TRAER CAMISETA DE REPUESTO Y ELEMENTOS DE ASEO PERSONAL.

3. NORMAS DE SEGURIDAD

POR SEGURIDAD, SE HACE IMPRESCINDIBLE EVITAR:

- LLEVAR ANILLOS, PENDIENTES, CADENAS Y OTROS ACCESORIOS QUE PUEDAN ENTORPECER LA ACTIVIDAD FÍSICA.
- MASTICAR CHICLES, CAMELOS O CUALQUIER OBJETO SUSCEPTIBLE DE OCASIONAR UN COLAPSO EN LAS VÍAS RESPIRATORIAS.
- LLEVAR EL PELO LARGO Y SUELTO, YA QUE DIFICULTA LA VISIÓN Y LA PRÁCTICA DEPORTIVA.

LA FALTA DE ALGUNO DE LOS PUNTOS INCLUIDOS EN EL PUNTO 2 Y 3 PODRÁ IMPLICAR QUE EL ESE ALUMNADO NO PARTICIPE EN LA SESIÓN PRÁCTICA, VIÉNDOSE SUSTITUIDO EL TRABAJO PRÁCTICO POR UNO TEÓRICO O DE COLABORACIÓN EN EL BUEN FUNCIONAMIENTO DE LA CLASE Y, TAMBIÉN, VER PENALIZADA SU NOTA EN EL APARTADO DE ACTITUD.

CRITERIOS PARA LA REPETICIÓN DE UNA PRUEBA POR AUSENCIA DEL ALUMNO

SE LE REPETIRÁ LA PRUEBA EVALUABLE EN EL CASO DE QUE EL MOTIVO SEA UNA ENFERMEDAD Y EL JUSTIFICANTE PRESENTADO SEA OFICIAL. DADO QUE EL PERSONAL MÉDICO NO TIENE OBLIGACIÓN DE EMITIR JUSTIFICANTES, LA PROPIA CITA MÉDICA O EL INFORME MÉDICO SERÁN VÁLIDOS. EN EL CASO DE OTRO TIPO DE JUSTIFICACIÓN, VIAJE, EVENTO FAMILIAR, ENFERMEDAD DE UN FAMILIAR... SERÁ EL PROFESORADO EL QUE DECIDA SI PUEDE DE REPETIRSE O NO.

SI LAS JUSTIFICACIONES FUERAN REITERADAS O EL PROFESORADO SOSPECHARA QUE EXISTE MALA FE O NEGLIGENCIA EN LA JUSTIFICACIÓN DE LAS AUSENCIAS, ESTE PODRÁ TOMAR LA DECISIÓN DE NO REPETIR LA PRUEBA SI ASÍ LO DECIDIERA.

CRITERIOS PARA LA SANCIÓN POR DESHONESTIDAD EN PRUEBAS

SI EL PROFESORADO SOSPECHA QUE EL ALUMNADO NO HA SIDO HONESTO EN ALGUNA DE LAS PRUEBAS, PODRÁ OPTAR POR REPETIRLE LA PRUEBA EL DÍA QUE CONSIDERE OPORTUNO CON EL FIN DE CONSTATAR LA VERACIDAD DE SUS RESPUESTAS, EN EL CASO DE UN CONTROL, O HACÉSELA REPETIR, EN EL CASO DE UN TRABAJO REALIZADO EN CASA.

EN EL CASO DE QUE TENGA PRUEBAS OBJETIVAS DE QUE LA PRUEBA NO ES ORIGINAL, PODRÁ INVALIDARLA SIN NECESIDAD DE REPETICIÓN Y LA NOTA SERÁ UN 0 EN EL APARTADO TEÓRICO.

FICHA MÉDICA

NOMBRE Y APELLIDOS

CURSO Y GRUPO

En la siguiente ficha (de carácter confidencial y de uso exclusivo por el departamento de Educación Física), debe señalar **SÍ** o **NO** (solo si la respuesta es afirmativa debe contestar a las preguntas).
¡Gracias por su colaboración!

¿Padece su hijo/a algún tipo de enfermedad o problema **CARDIOVASCULAR**?

SÍ

NO

En caso afirmativo, señale cuál y de qué tipo.

¿Padece su hijo/a algún tipo de **ALERGIA**?

SÍ

NO

En caso afirmativo, señale cuál y de qué tipo.

¿Padece su hijo/a algún tipo de **ASMA** o problema respiratorio?

SÍ

NO

En caso afirmativo, señale cuál y de qué tipo.

¿Padece su hijo/a algún tipo de lesión en los músculos, huesos o articulaciones **RECIENTE**?

SÍ

NO

En caso afirmativo, señale cuál y de qué tipo.

¿Padece su hijo/a algún tipo de **DESVIACIÓN** en la **COLUMNA VERTEBRAL**?

SÍ

NO

En caso afirmativo, señale cuál y de qué tipo.

¿Existe en la actualidad algún otro tipo de problema que haga que su hijo/a deba acceder a una adaptación curricular por parte del Departamento de Educación Física ?

SÍ

NO

En caso afirmativo, lea el recuadro inferior.

En caso de respuesta afirmativa en alguna de las cuestiones enumeradas anteriormente, y con el objeto de acceder a una adaptación que permita al alumno/a cursar la asignatura en las mejores condiciones, debe presentar ante el departamento de Educación Física un certificado médico oficial en el que conste:

- Patología y/o enfermedad.
- Contraindicaciones hacia el ejercicio físico: qué tipo de ejercicios, qué deportes puede realizar, a qué intensidad...
- Duración de la patología que provoca la adaptación curricular.

En caso de no presentar dicha documentación, para evitar posibles problemas de salud y, al mismo tiempo, que el alumno pueda superar la asignatura, queda al criterio del profesor el cursar dicha adaptación. Recordamos de nuevo que la figura del alumno exento no es contemplada por la ley.

NOMBRE DEL PADRE/MADRE O TUTOR/A

DNI

EL ABAJO FIRMANTE CERTIFICA QUE TODOS LOS DATOS REFLEJADOS EN EL PRESENTE DOCUMENTO SON VERDADEROS.

EN _____ A _____ DE _____ DE _____

FIRMA