



Vyners School

Striving for
Excellence

Welcome to the PE Department



Sixth Form PE Staff:

- Mr Hall, Subject Leader
- Miss Powick, Deputy Subject Leader
- Mr Neville, Year 11 Leader
- Mr Flynn
- Miss Hawes, Year 9 Leader



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Our Key Stage 5 Curriculum

OCR

Oxford Cambridge and RSA

In the 6th Form we continue our broad offer of academic courses offering two courses for students to study.

Courses offered -

A Level PE

OCR Technicals in Sport and Physical Activity

It's been great to learn the science and psychology underpinning sport and has opened the door to a degree and career in sport!

- Year 13 Student



A-Level PE

“Our A Level in Physical Education develops knowledge, understanding and skills relevant to physical education. Students gain understanding of the scientific and socio-cultural factors that underpin physical activity, and demonstrate their ability as either performer or coach. This qualification is filled with a range of content across the sporting spectrum developing individuals knowledge in preparation for a possible career in teaching, sports medicine, nutrition, coaching, strength and conditioning to name a few.”

OCR

Oxford Cambridge and RSA

ENTRY REQUIREMENTS

2 x Grade 6+ in Science, 6+ in English, 6+ GCSE PE

COURSE CONTENT

Physiological factors affecting performance
Psychological factors affecting performance
Socio-cultural issues in physical activity and sport
Performance in Physical Education

ASSESSMENT

Written exams - set and marked by OCR (4 unit exams)
Physiological factors affecting performance— 2 Hour Exam
Psychological factors affecting performance— 1 Hour
Socio-cultural issues in physical activity and sport—1 Hour Exam
Performance in Sport - Practically Assessed

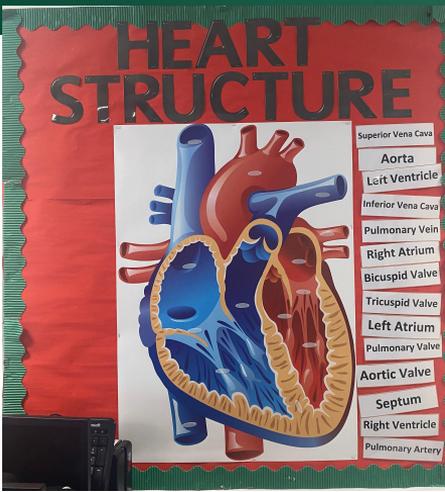


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PE PERIODIC TABLE

Mo				Co				Sk	Cr	
Ab			Mu	Cf	St	SM	SC	Cy	Tv	Sc
Ad	Pi	Bi	Tr	Me	Fl	Te	Fp	Lv	Sc	H
Ro	Lu	A	Qu	Ag	Po	R	Se	Ri	Cl	Fe
B	Ss	Ha	G	L	U	Ra	Co	L	Ra	Co
Sq	J	F	EX	Co				T	Fi	Tm



Monday 20th September
Exercise

- **Endurance:** The period around that the heart rate stays high.
- **Intensity:** The force that is applied to the heart system by weight of load, speed, or resistance.
- **Frequency:** The force that is applied by the user of the heart system by muscles.

Heart Rate

ELF (Exercise Load Factor)

FEL (Fitness Load Factor)

ELF = Load / Endurance

FEL = Endurance / Load

Example: A sprinter runs 100m in 15 seconds. The load is 100m, the endurance is 15 seconds. ELF = 100 / 15 = 6.67. FEL = 15 / 100 = 0.15.

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Long term effects of Physical Activity on Muscular System

Increased bone density

- weight bearing exercise puts bones under stress
- in response the body produces more cells that build new bone
- prevents osteoporosis
- makes bones stronger / denser

Increased strength of ligaments and tendons

- weight bearing exercise increases strength of ligaments and tendons
- reduces the risk of injury to these ligaments and tendons

Muscle Hypertrophy

- strength training increases muscle size
- also increases strength of muscles
- muscle endurance - low weight / high reps
- muscle strength - high weight / low reps

Heart

- decrease resting heart rate
- regular aerobic exercise
- better oxygen intake
- faster open up a greater blood flow increasing oxygen
- prevents coronary artery disease
- heart becomes more efficient at using oxygen, the amount of blood pumped by heart per beat
- respiratory cardiac output
- heart stronger / more efficient moving more blood per minute
- size and strength of heart
- chamber increase in volume
- more oxygenated blood can be pumped by heart
- increasing oxygen supply to working muscles

Heart

- capillarisation increases
- breathing increases the number of capillaries in heart
- increases oxygenated blood from arteries to tissues
- increases oxygenated blood from tissues back to heart
- helps make blood vessels more elastic - flexible
- allows more number of red blood cells
- in case a resting heart rate increases
- regular exercise reduces BP on the vessels and arteries become more elastic
- heart does not need to pump with as much force - this reduces force on arteries - lowers

Cardio-respiratory system

Heart: back / lungs

Heart Structure

Heart Structure

- **Superior Vena Cava**: carries deoxygenated blood from the upper body to the right atrium.
- **Inferior Vena Cava**: carries deoxygenated blood from the lower body to the right atrium.
- **Right Atrium**: receives deoxygenated blood from the vena cavae.
- **Tricuspid Valve**: prevents backflow of blood from the right ventricle to the right atrium.
- **Right Ventricle**: pumps deoxygenated blood to the lungs.
- **Pulmonary Artery**: carries deoxygenated blood from the right ventricle to the lungs.
- **Septum**: divides the right and left sides of the heart.
- **Left Atrium**: receives oxygenated blood from the lungs.
- **Bicuspid Valve**: prevents backflow of blood from the left ventricle to the left atrium.
- **Left Ventricle**: pumps oxygenated blood to the rest of the body.
- **Aortic Valve**: prevents backflow of blood from the aorta to the left ventricle.
- **Aorta**: carries oxygenated blood from the left ventricle to the rest of the body.
- **Pulmonary Vein**: carries oxygenated blood from the lungs to the left atrium.

Heart Structure

- **Coronary Arteries**: supply oxygenated blood to the heart muscle.
- **Coronary Veins**: carry deoxygenated blood from the heart muscle to the right atrium.
- **Myocardium**: the muscular wall of the heart.
- **Endocardium**: the innermost layer of the heart wall.
- **Epicardium**: the outermost layer of the heart wall.
- **Pericardium**: the protective sac surrounding the heart.



Sports Studies

OCR

Oxford Cambridge and RSA

COURSE AIM

A level 3 qualification for post - 16 learners who want to achieve their potential and progress to the next stage of their lives whether it be in higher education, an apprenticeship or employment. It aims to develop students' knowledge, understanding and skills of the principles of sport and physical activity to a wide range of participants.

CONTENT

- Body Systems and the Effects of Physical Activity
- Sports Coaching and Activity Leadership
- Sports Organisation and Development
- Working Safely in Sport, Exercise, Health and Leisure
- Organisation of Sports Events
- Physical Activity for Specific Groups
- Sports Injuries and Rehabilitation
- Practical Skills in Sport and Physical Activities
- Performance Analysis in Sport and Exercise
- Nutrition and Diet in Sport and Exercise
- Health and Fitness Testing for Sport and Exercise
- The Business of Sport
- Sport and Exercise Psychology
- Sport and Exercise Sociology

ENTRY REQUIREMENTS

Two Grade 4 in Combined Science and Grade 4 in English

Two Grade 4 in Triple Science and Grade 4 in English

COURSE BALANCE

3 x External Examinations

8 x Coursework based Units



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Our Co-curricular Offer

Students are invited to join a wide range of activities there is something for everyone:

Trampolining, football, rugby, netball, basketball, badminton, table tennis, gymnastics, hockey, cross country are just a few of the activities we offer!

Past trips have included:

Paris Netball tour, Canada Rugby tour, Austria Ski trip, Valkenberg Football tour





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Questions

Please email Mr Hall - thall@vynersschool.org.uk with any questions you have.

Please refer to your 6th form brochure for entry requirements and course content.



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**We look forward to meeting you in
September 2024!**