

CHENGVELO SECONDARY SCHOOL



Form 3 Options, 2018

INTRODUCTION

In Forms 4 and 5 pupils have a degree of choice as to which subjects they wish to continue to study to external examination level. The process of selecting these subjects begins with the Form 3 examinations and parent-teacher consultations, just before the half-term break in Term 2. Subject preferences need to be indicated by the end of Term 2 of Form 3, by which stage it is hoped that students will have sat down with their parents to discuss these options carefully. This will allow time for all students to be subsequently interviewed regarding the choices they have made to check their suitability and viability. In making this decision the pupils, parents and staff must take into account the following factors:

- What subjects are they good at? (Refer to exam results).
- Which subjects are they expected to achieve in? (Refer to target grades).
- What subjects do they enjoy?
- Which subjects are important for their overall development?
- Which subjects can the school viably offer?

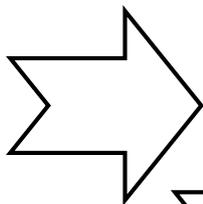
The purpose of this booklet is to give you some further information on IGCSE and the content of the courses studied so that you are in a better position to make an informed choice for your child's future. The choices will be made from the following curriculum...

COMPULSORY SUBJECTS, which all students study up to IGCSE level:

- First Language English
- English Literature
- Mathematics

OPTIONAL SUBJECTS, which students also study up to IGCSE level. Students will study six from the list below:

- Agriculture
- Biology
- Chemistry
- Physics
- ICT
- Computer Science
- Business Studies
- Geography
- History
- Religious Studies
- French
- Art & Design
- Design & Technology
- Music



Students must study at least two science subjects



Students must study ICT or Computer Science

Certain guidelines ought to be stressed at this stage. Whilst the system of choosing options is designed to give students the maximum amount of choice and flexibility, there are inevitable restrictions placed upon students in this process. All students are advised to keep their future career paths open by studying a good balance of subjects. Our most able students are advised to continue studying three “pure” science subjects (biology, chemistry, physics), and all students must study at least two science subjects for IGCSE (for admission requirements to the University of Zambia please see <https://www.unza.zm/admission-requirements>). In addition, some universities prefer applicants to have studied a second language at IGCSE level.

The school reserves the right to make judgments about the viability of any course and does not guarantee that all of the courses mentioned above will run in every academic year group.

Chengelo is a registered examinations centre for Cambridge International Examinations IGCSE (International General Certificate of Secondary Education). IGCSEs are internationally recognised and are equivalent to the Zambian O-levels. Pupils who expect to achieve high grades and wish to apply to local universities (UNZA and CBU) can do so. Alternatively, pupils with good IGCSE grades can continue into the Sixth Form at Chengelo to study AS and A-levels or transfer to other schools or colleges.

IGCSEs are graded on an eight point scale of A* to G with an A* being awarded for outstanding performance in that subject. These grades compare with the O-level system as follows:

IGCSE	O-level
A	1 or 2 Distinction
B	3 or 4 Merit
C	5 or 6 Credit
D	7 or 8 Satisfactory

In some subjects the syllabus content is divided into 'core' and 'extended' material. Pupils will be set according to their ability by the relevant subject teachers. Pupils following the core syllabus are entered for the core level examinations and may achieve grades C-G. More able pupils sit the extended level papers aiming for Grades A*-B. Grades C, D and E at core or extended level are equivalent and the final statement of results does not mention the level at which the pupil was entered. Final examinations are sat in October/November. The School retains the right to decide which level the pupil is entered for. Coursework is an important part of several of these IGCSE courses. Our staff are qualified to assess this work, with the marks counting towards the pupil's final grade.

IGCSE SUBJECTS

ENGLISH

The purpose of English in the Chengelo curriculum is to empower our students to become confident and competent communicators. It aims to develop creative thought and analytical skills, and to hone sensitive, perceptive responses to both texts and life situations. Further benefits of studying English are heightened critical thinking and an ability to make wise, informed decisions; both will become indispensable companions for our nation's future leaders.

Students follow one integrated course over the two years, which will result in two entirely separate IGCSEs – English Language and English Literature. English Language requires an in-depth analysis of varied written texts, an ability to write coherently in different forms and an aptitude for extracting information and re-presenting it in a different form. Students will be assessed through a coursework portfolio, showcasing their best writing, and an examination.

In Literature, students will look at texts in all three genres: drama, poetry and prose. They will refine their analytical skills, and develop a confident critical response to the texts read. Students will be assessed through three examinations.

Reasons to study ENGLISH include the following:

- i) You want to accurately convey information in either written or spoken form to colleagues, employees or bosses. You want to make an impression in your workplace. You want to write effective analytical essays in your other IGCSE subjects.
- ii) You wish to enjoy a career in law, history, marketing, editing, media, publishing, advertising, public relations or education.
- iii) You wish to become a writer, journalist, playwright or songwriter. You want to be someone who is eloquent, wise, coherent, persuasive and popular.

MATHEMATICS

Pupils work towards the examinations based on a syllabus that does not include coursework. The aims of the IGCSE Mathematics course are to enable students to develop their mathematical knowledge and oral, written and practical skills in a way that encourages confidence and provides satisfaction and enjoyment. Pupils will study a number of topics including square-roots and cubes, standard form, estimation, limits of accuracy, ratio, proportion, rate, percentages, money, personal and household finance, graphs, algebra, functions, indices, solutions of equations and inequalities, geometry, trigonometry, statistics, probability, matrices, linear programming, constructions, mensuration, locus, trigonometry, vectors and transformations. Mathematics is a compulsory subject, and it is essential that all pupils have a grounding in this subject that will equip them further to study in any discipline. Most further education institutions and employers insist that candidates have passed Mathematics with a grade C or above, making Mathematics a vital subject.

Pupils are split into two sets: Extended and Core. The final examinations are available at two levels: Core curriculum with grades C-G available and Extended curriculum with grades A*-E being available.

AGRICULTURE

The IGCSE syllabus includes topics such as soil science, crop production and protection, animal production and health, farm structures and machinery, agricultural economics, principles of plant growth and agriculture in a wider sense. The Chengelo Training Farm has both crop and animal production enterprises where students can observe and take part in various farm operations. The school's vegetable gardens are the main site for practical assessment activities and Form 5 projects. Agriculture students are privileged to visit the commercial farms on prior arrangement with farm owners.

The examination consists of a theory paper and an assessed practical project of the pupil's choice. The subject has an excellent reputation and the examination results have been very good in recent years.

Reasons to study AGRICULTURE include:

- i) It is an Applied Science, which harnesses the key concepts in the pure sciences for the provision of basic human needs of food, clothing and shelter.
- ii) It derives its productive resources from the natural biophysical environment and therefore creates an increased awareness of man's sole dependence on nature and the ever-pending need to manage our environment in a sustainable manner.
- iii) Agriculture opens up a variety of career paths leading to jobs such as: Agricultural Economists, Agribusiness consultants, Development Consultants, Farm Managers, Agricultural Engineers, Crop Scientists, Rangeland Managers, and Veterinary Doctors etc.
- iv) Agriculture provides a vast range of opportunities for research in Academic and Socio-economic spheres of human life.

SCIENCE

In Form 3 students have begun their IGCSE courses in Biology, Chemistry and Physics. Our most able students are advised to take all three science subjects. After the mock exams in the June of Form 5, a decision is taken as to whether pupils should be entered at Core or Extended level.

Practical work remains fundamental to all of the IGCSE sciences, and it is assessed through the Alternative-to-Practical paper in each subject. To support this there are several well equipped laboratories and a well-stocked preparation room.

Reasons to Study BIOLOGY include:

- i) You want to be a doctor, dentist, veterinarian, biochemist, nurse, marine biologist, agriculturalist, physiotherapist, geneticist, etc.
- ii) Biology gives you a good understanding of the world you live in and your own body.
- iii) You enjoy doing practicals and lab work and investigating scientific problems by experimentation.
- iv) Biology will give you an understanding of the environment and how man's activities can affect and influence it.

Reasons to study CHEMISTRY include:

- i) No science has contributed as much value to so many fields of human life as chemistry. Food, fuel, clothing, health and entertainment have all been served by chemists, and chemistry, throughout the world.
- ii) New opportunities for chemists are opening up in areas such as computers, biotechnology and the environment, as well as in more traditional areas such as petroleum chemicals, plastics and pharmaceuticals.
- iii) Chemistry will help you develop your problem solving skills, which are vital in all areas of life.
- iv) Chemistry is a required qualification for many college and university courses (e.g. medicine, dentistry, veterinary medicine, biochemistry, chemical engineering, pharmacy, agriculture, and genetics). Chemistry is a useful and enjoyable subject of study for everyone.

Reasons to study PHYSICS include:

- i) Physics enhances your understanding of the World in which we live, and also helps you appreciate the majesty of God through examining his creation.
- ii) Physics gives you thinking skills, which can be applied in any context. It gives you the background knowledge you may need to solve everyday practical problems.
- iii) Physics gives you the technical background that can help with some aspects of political and business decision making.
- iv) Physics at IGCSE level is a very well respected academic qualification and can open up many career opportunities including Medicine, Engineering, and Aviation.

ICT (INFORMATION & COMMUNICATION TECHNOLOGY)

The ICT course is designed to give an overview of computers without going into a lot of depth of theory. The course also has a strong practical level (accounting for 50% of the course) to enable students to demonstrate that they can competently use a computer system. This course is ideally suited for students who are looking at careers where the ability to use a computer is important such as administration, business and most branches of Law.

The syllabus aims summarise the context in which you should view the syllabus content and describe the purposes of a course based on this syllabus. They are not listed in order of priority.

The aims are to develop:

- knowledge of ICT including new and emerging technologies
- autonomous and discerning use of ICT
- skills to enhance work produced in a range of contexts
- skills to analyse, design, implement, test and evaluate ICT systems skills to consider the impact of current and new technologies on methods of working in the outside world and on social, economic, ethical and moral issues
- ICT-based solutions to solve problem
- the ability to recognise potential risks when using ICT, and use safe, secure and responsible practice.

Reasons to study ICT include:

Cambridge IGCSE Information and Communication Technology encourages learners to develop lifelong skills, including:

- understanding and using applications
- using Information and Communication Technology (ICT) to solve problems
- analysing, designing, implementing, testing and evaluating ICT systems, ensuring that they are fit for purpose
- understanding the implications of technology in society, including social, economic and ethical uses
- awareness of the ways ICT can help in home, learning and work environments.

Cambridge IGCSE Computer Science enable learners to develop their understanding of the main principles of problem solving using computers. They can apply their understanding to develop computer-based solutions to problems using algorithms and a high-level programming language. Computer Science provides learners with the underpinning knowledge required for many other subjects in science and engineering, and the skills learnt can also be used in everyday life.

The course aims are to develop:

- computational thinking, that is thinking about what can be computed and how, and includes consideration of the data required
- understanding of the main principles of solving problems by using computers
- understanding that every computer system is made up of sub-systems, which in turn consist of further sub-systems
- understanding of the component parts of computer systems and how they interrelate, including software, data, hardware, communications and people
- skills necessary to apply understanding to solve computer-based problems using a high-level programming language.

Reasons to study COMPUTER SCIENCE include:

- i) Computers are having, and will continue to have, an impact on education, business, administration, communications and all aspects of everyday life.
- ii) Universities and colleges increasingly expect students to have a thorough grounding in ICT skills.
- iii) Computer Technology will play an increasing role in the continuing development of Zambia.
- iv) To develop and foster a strong understanding of ICT particularly for those looking at progressing in to computer or computer related fields such as surgery, informatics, networks or any internationally based industry.

Students must choose either IGCSE in Computer Science or IGCSE ICT (Information & Communication Technology).

BUSINESS STUDIES

The IGCSE Business Studies course gives a broad introduction to the business world and can prepare a student for many different careers. For Business Studies students should have an interest in the study of business and its operations and have a good ability in Mathematics to help them understand calculations in finance, costing and analysis, break even analysis, accounting, cash flow analysis, sales and profit forecasting and any other business calculations.

The IGCSE syllabus is split into 5 sections:

- Business and the environment in which it operates.
- Business structure, organisation and control.
- Business activity to achieve objectives.
- People in Business.
- Regulating and controlling business activity.

Field trips are made to business organizations to widen the scope of understanding. Final exams are written in the November of Form 5 and students will write 2 papers.

Reasons to study BUSINESS STUDIES include:

- i) I want to run my own business or be involved in business.
- ii) I want to broaden my knowledge (e.g. psychology of work, finance, and marketing.)
- iii) Business Studies opens a number of career opportunities including: Management, Accountancy, Business, Administration, Training, Consultancy, Economics, Marketing and Business Law.

GEOGRAPHY

Geography is basically the study of 'places', 'people' and often how they interact together. It is regarded as a bridging discipline between natural and social sciences. It is popular with most students as they can easily grasp the reality and interest of the subject. Making Geography alive by the use of case studies and fieldwork is the key to its success. The use of the 'Wider World' series of texts is perfect for this approach. Case studies from all over the world are used as well as Zambian ones, giving the students a well-rounded global view of the subject.

Geography is also a practical subject and so field trips are an essential part of its study. Field trips include a river study at Kundalila Falls, a visit to industries on the Copperbelt and a town study of Kabwe. Along their geographical journey students will pick up skills such as map work and basic research skills. They will also be able to analyse statistical information and diagrams. IGCSE Geography adequately lays the needed foundation for A Level Geography. The increased knowledge and understanding of how the world 'operates' will be invaluable in many different careers from business to game ranching. Geography lessons at Chengelo are the first steps to encourage the students to go and see the world at first-hand for themselves!

Reasons to study GEOGRAPHY include:

- i) I enjoy learning about real places and people.
- ii) I enjoy learning subjects that have practical application in the field.
- iii) I am interested in understanding how the world operates and what my role is in improving the environment we live in.
- iv) Geography opens a number of career paths including: Environmental Science, Tourism, Demography, Geology, Meteorology, Social Work, Economics, Town and Country Planning.

HISTORY

The aim of the IGCSE course is to enable students to gain a better understanding of human activities in the 20th Century. Students learn about the causes and consequences of key historical events. Such knowledge promotes toleration, a respect for other cultures and an enhanced understanding of the many problems (political, social and economic), which face our world today.

History at IGCSE level also equips students with a number of vital skills. For example, to;

- Use information accurately in order to support a coherent and logical argument.
- Communicate in a clear and concise manner, using appropriate terminology.
- Show an empathetic understanding of individuals and societies.
- Interpret different sources of information, appreciating the potential for distortion through bias and propaganda.

Over two years, students cover a diverse range of topics. The focus is international and a basic outline is given below:

- International Relations, 1919-39
- Tension and Co-operation Since 1945
- Germany, 1918-45
- America in the 1920's and 30's.

Aspects of the course, which students find particularly fascinating, are the Vietnam War, life in Nazi Germany and 1920's America (for example gangsters, flapper girls and the treatment of African Americans).

Reasons to study HISTORY include:

- i) I enjoy finding out about the past, or I am interested in politics, society or just seeing how things were different in different places and at different times.
- ii) I enjoy reading about and investigating subjects, I enjoy reasoning and debating subjects.
- iii) I often ask why things are the way they are today.
- iv) History opens a number of career paths including: Law, Management Administration, Data Analysis, Accountancy, and Business Management.

RELIGIOUS STUDIES

The aim of Religious Studies at Chengelo is to look at Religion and, specifically, Christianity from an academic perspective. The aim is to train pupils to think broadly, to challenge personal beliefs and to increase knowledge. The course aims to cover a wide variety of topics in the first three years including giving a foundation to Biblical knowledge, and a study of other religions such as Judaism, Islam, African Traditional Religions and Hinduism from a Christian perspective.

The IGCSE course then focuses on two main religions, 'Christianity' and 'Islam'. The course is well balanced and interesting. It aims to promote an enquiring, critical and sympathetic approach to the study of religion as it provides students with an introduction to the challenging and varied nature of religion

Reasons to study RELIGIOUS STUDIES include:

- i) I want to understand the beliefs, values and traditions of religions.
- ii) I want to be challenged as it will help me consider religious and other responses to moral and ethical questions.
- iii) I want to develop skills to identify, investigate and respond to fundamental questions of life.
- iv) I want to learn to recognise and appreciate the contribution of religion in the formation of patterns of belief and behaviour
- v) Religious Studies opens a number of career paths including: Law, Sociology, Psychology, Teaching, Ministry, (Church) Caring professions.

FRENCH

In IGCSE French students develop the ability to use the language effectively for the purposes of effective communication. They form a sound base in listening, speaking, reading and writing and are assessed in all four skills. Study of the subject offers insight into the culture and civilisation of French-speaking countries.

Knowledge of a foreign language is an asset to any student, providing opportunities to develop communication skills and an understanding of an influential foreign culture. French is particularly useful to those pupils whose careers may lead them to travel or to work in Northern Africa or Europe.

A foreign language qualification is also required for entry to Higher Education by some colleges and universities outside Zambia.

Reasons to study FRENCH include:

- i) I enjoy learning to speak a different language and learning about another culture.
- ii) I am interested in how language works and in using communication skills.
- iii) French is the main language of communication in many African countries.
- iv) French opens a great many career opportunities including; Modern Languages, Law and French, Business Management and French, Marketing and French, Interpreting and Translating, Business and Trade links with French Speaking countries, Tourism.

ART & DESIGN

All pupils can study Art & Design up to Form 3. Thereafter, it is an option offered at IGCSE and A-Level. At IGCSE, students are required to submit work for two papers from a wide range of choices, which include Observational, Interpretative and Design Study.

Reasons to study ART & DESIGN include:

The Art and Design course:

- i) Encourages intuitive, imaginative and design thinking which help with problem solving in tactile, visual, critical and analytical faculties.
- ii) Stimulates interest in environmental and cultural diversity.
- iii) Provides an introduction to artistic appreciation, enjoyment, personal enrichment and increase one's confidence that comes as a result of acquisition of new skills.

Art and Design opens up a number of career paths including fashion designer, jeweller, interior designer, furniture designer, landscaper, architect, ceramist, computer graphics animator and game developer, commercial photographer, film producer, environmental conservationist, artist, art teacher/lecturer and advertising agent designer.

MUSIC

All pupils study music up to Form 3. Thereafter, it is an option, and offered up to IGCSE and A level. Students sit for three papers: listening, performing and composing. The listening syllabus covers Western Classical music, as well as traditional music from around the world. The performing component involves 4-10 minutes of solo and ensemble performances. The composing component includes a project of two original compositions, for different instruments and/or voices.

Reasons to study music include:

1. Acquisition and consolidation of a range of basic musical skills, knowledge and understanding
2. Development of perceptive, sensitive and critical response to the main historical Western and non-Western musical traditions and appreciation of cultural similarities and differences
3. Provides an introduction to artistic appreciation, enjoyment, personal enrichment, and increases one's confidence with the acquisition of new skills.

IGCSE music provides an ideal basis for any music-related tertiary courses, such as music performance, composition, musicology, music technology, music education, sound mixing, recording engineering etc.

1. a range of basic musical skills, knowledge and understanding, through the activities of listening, performing and composing
2. Help develop a perceptive, sensitivity and critical response to the main historical, Western and non-Western traditions and appreciation of cultural similarities and differences
3. Develop one's personal confidence that comes through an informed appreciation of music and an acquisition of new skill

DESIGN & TECHNOLOGY

All pupils study Design & Technology up to Form 3. Thereafter, it is an option and is taken up to IGCSE. The subject includes theory and practical work, which takes an idea through from the design process to realization (the actual making of the designed artefact). At IGCSE pupils sit for two written papers and undertake a practical project. The syllabus covers a range of resistance materials such as metal (fabrication and machining), wood (including lathe work) and plastics.

Reasons to study DESIGN & TECHNOLOGY include:

- i) Students gain technical and design awareness, and develop skills such as initiative, resourcefulness, enquiry and ingenuity.
- ii) It enables students to identify, consider and solve problems through creative thinking, planning and design, by working with different media, materials and tools.
- iii) Design and Technology provides an ideal basis for further study and prepares students for careers such as Architect, Industrial Design and Engineering.

NON-IGCSE SUBJECTS

PERSONAL, SOCIAL & MORAL EDUCATION (PSME)

This course continues in Form 3 through to Form 5 building on the work covered in Forms 1 & 2. During Form 3 the decision-making process is emphasised in anticipation of the Option Choices. Relationships become even more important at this stage, including those with the opposite sex, and much time is devoted to discussions of this area. Form 4 & 5 move towards preparing for adulthood in terms of decisions for the future, relationships, preparing for careers/further education and other important issues of life. As well as some traditional teaching methods, discussions, role-play, small group work and other methods are used to encourage pupils to think for themselves about growing up and moving towards maturity.

PHYSICAL EDUCATION

PE is taught as a curriculum subject throughout the five years at Chengelo. The school is fortunate in having excellent facilities, and these include a cricket field, 25m swimming pool, two tennis courts, and football, rugby, hockey and netball pitches. We also have two squash courts, two basketball courts, volleyball courts and athletics facilities.

As a result of the extensive facilities pupils enjoy a wide range of activities in PE lessons. Typically, a pupil may participate in athletics, basketball, cricket, cross country, football, hockey, netball, rounders, rugby, softball, swimming and volleyball.

The PE Department is also committed to extra-curricular sport. There are numerous clubs and activities taking place after school and at the weekends. Where possible, “friendly” matches are arranged against other schools. Chengelo teams have always competed in the International Schools Association of Zambia (ISAZ) Sports Festivals held annually in Lusaka or the Copperbelt.