







آغا خان یونیورسٹی ایگزامینیشن بورڈ
AGA KHAN UNIVERSITY EXAMINATION BOARD

**List of Learning Resources (Compiled) for
Secondary School Certificate Part 1 (SSC I)**

ONLINE RESOURCES (across Subjects and Grades)

Knowledge Platform* https://akueb.knowledgeplatform.com/login	
Punjab Curriculum and Textbook Board https://pctb.punjab.gov.pk/E-Books	
Cantab Publishers* https://cantabpublisher.com/	
Phet Interactive Simulations https://phet.colorado.edu/	

* Subscription and/or purchase required

COMPULSORY SUBJECTS

English Compulsory:

Recommended Key Textbooks:

Model Textbook of English 9. Cantab Publisher (Based on National Curriculum of Pakistan 2022-23)

Textbook of English Grade 9. National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-23)

English Grade 9. Punjab Curriculum and Textbook Board, Lahore

English Grammar and Composition 9-10, Punjab Curriculum and Textbook Board, Lahore

Oxford Progressive English 9, Redford, R and Saunders, M, Oxford University Press

Reference Book:

Grammar for GCSE English. Gould, M. and Kemp, B. (2013) Collins

Websites:

www.esl-lab.com

<https://learnenglish.britishcouncil.org/skills/listening>

<https://theintegratedteacher.com/short-stories-for-9th-graders/>

www.majortests.com/sat/reading-comprehension.php

<https://learnenglish.britishcouncil.org/skills/reading>

<https://learnenglish.britishcouncil.org/skills/writing>

<https://www.perfect-english-grammar.com/grammar-exercises.html>

FOR TEACHING AND LEARNING ONLY

Urdu Compulsory:

Recommended Key Textbook:

بہ طورِ درسی کتاب: ماڈل درسی کتاب، اردو، جماعت نہم کے لیے، قومی نصاب ۲۳-۲۰۲۲ء کے مطابق، نیشنل بک فاؤنڈیشن بہ طور وفاقی ٹیکسٹ بک بورڈ، اسلام آباد

Reference Books:

- اصنافِ ادب، رفیع الدین ہاشمی
- اردو قواعد و انشاء، برائے نہم، دہم، پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ، لاہور
- اردو ادب کی مختصر تاریخ، ڈاکٹر انور سدید، مقتدرہ قومی زبان، اسلام آباد
- تذکرے اور تبصرے، نیراج الاسلام
- بچوں کے رسائل (نوناہال / جگنو / تعلیم و تربیت وغیرہ)
- مختلف روزنامہ اخبارات (جنگ / ایکسپریس / نوائے وقت وغیرہ)
- فیروز اللغات اردو، مولوی فیروز الدین، فیروز سنز، لاہور / گراچی / پشاور
- فرہنگ تلفظ، شان الحق حقی، مقتدرہ قومی زبان، اسلام آباد
- اردو مترادفات (تھیسارس)، احسان دانش

Websites:

https://genrica.com/books_download.aspx?titleID=245&metaID=0&volumes=0

(اصنافِ ادب، رفیع الدین ہاشمی، سنگ میل پبلیکیشنز)

https://www.taleem360.com/9th-and-10th-class-urdu-qawaid-o-insha-text-book-by-punjab-board-vfq#google_vignette

(اردو قواعد و انشاء برائے نہم و دہم، پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ، لاہور)

<https://xn--mgbqf7g.com/>

(اردو گاہ- روزمرہ، محاورات، کہاوتیں وغیرہ)

<https://www.youtube.com/watch?v=i3JNHsP5Ly0>

(قافیہ، ردیف، مطلع و مقطع)

[Ilm e Bayan Ki Tareef | Urdu Notes | علم بیان کی تعریف](http://ilm-e-Bayan-Ki-Tareef-Urdu-Notes)

(علم بیان)

<https://urdunotes.com/lesson/ilm-e-badee-in-urdu/>

(علم بدیع)

https://archive.org/details/20200302_20200302_1133

(البدیع، عابد علی عابد، مجلس ترقی ادب، لاہور)

<https://www.bbc.com/urdu>

<https://jang.com.pk>

(بی بی سی۔ اردو، برائے سمعی و خوانی مہارت)

<https://www.express.com.pk/>

(جنگ، برائے سمعی و خوانی مہارت)

<https://www.humsub.com.pk>

(ایکسپریس، برائے سمعی و خوانی مہارت)

https://archive.org/details/pdf_20191115/mode/1up

(ہم سب، برائے سمعی و خوانی مہارت)

<https://udb.gov.pk/>

(اردو ادب کی مختصر ترین تاریخ، ڈاکٹر سلیم اختر)

<https://archive.org/details/TOOBAA-urdu-mutaradifat-ehsan-danish>

(اردو لغت (تاریخی اصول پر)، اردو لغت بورڈ)

<https://pressforpeace.org.uk/article-anwr-ghazi/>

(اردو مترادفات (تھیسارس)، احسان دانش)

<https://roshnai.com/me-kahani-kese-likhon/>

(تبصرہ نگاری)

<https://youtu.be/KVbvMxbOSF4?si=jZcNftUkCXNFW3n>

(کہانی نویسی)

<https://www.youtube.com/watch?v=0un9-YVDJ1M>

(مکالمہ نگاری)

<https://archive.org/details/texts>

(خط نویسی)

(آرکائیو، برائے مطالعہ، برقی کتب، خوانی مہارت)

FOR TEACHING AND LEARNING ONLY

Mathematics:

Recommended Key Textbooks:

Mathematics Grade 9. Punjab Curriculum and Textbook Board, Lahore

Mathematics Grade 10. Punjab Curriculum and Textbook Board, Lahore

The Textbook of Mathematics for Class 9. Sindh Textbook Board (Test Edition- 2022)

The Textbook of Mathematics for Class 10. Sindh Textbook Board (Test Edition- 2022)

Reference Books:

Model Textbook of Urdu 9. Cantab Publisher (Based on National Curriculum of Pakistan 2022-23)

Model Textbook of Mathematics Science Group Grade 9. National Book Foundation as Federal Textbook Board, Islamabad (Based on National Curriculum of Pakistan 2022-23)

Model Textbook of Mathematics Science Group Grade 10. National Book Foundation as Federal Textbook Board, Islamabad (Based on National Curriculum of Pakistan 2022-23)

Yeo, J., Seng, T., Yee, L., Chow, I., Meng, N. and Liew, J. (7th Edition). *Oxford New Syllabus Mathematics Book 1.* **Oxford University Press.**

Yeo, J., Seng, T., Yee, L., Chow, I., Meng, N. and Liew, J. (7th Edition). *Oxford New Syllabus Mathematics Book 2.* **Oxford University Press.**

Yeo, J., Seng, T., Yee, L., Chow, I., Meng, N. and Liew, J. (7th Edition). *Oxford New Syllabus Mathematics Book 3.* **Oxford University Press.**

Yeo, J., Seng, T., Yee, L., Chow, I., Meng, N. and Liew, J. (7th Edition). *Oxford New Syllabus Mathematics Book 4.* **Oxford University Press.**

Sue, P. (3rd Edition). *Cambridge IGCSETM and O Level Additional Mathematics Coursebook.* Cambridge University Press.

Online Reference Books:

Rayner, D. (2000). *Extended Mathematics for IGCSE.* **Oxford University Press.**

<https://www.pdfdrive.com/extended-mathematics-for-igcse-e183809326.html>

Tussy, A., Gustafson, R., Koeing, D. (4th Edition, 2010). *Basic Mathematics for College Students.* Brooks Cole.

<https://antinifizicari.wordpress.com/wp-content/uploads/2019/08/basic-mathematics-for-college-students-pdfdrive.com-.pdf>

Africk, H. (2021). *Elementary College Geometry* (2021 ed.). City University of New York (CUNY).

https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1051&context=ny_oers

Stitz, C. and Zeager, J. (2013). *College Trigonometry* Version $[\pi]$ Corrected Edition. Stitz Zeager Open Source Mathematics.

<https://www.stitzzeager.com/szct07042013.pdf>

Kruglak, H., Moore, J. and Mata-Toledp, R. (2nd Edition, 1998). *SCHAUM'S OUTLINE OF THEORY AND PROBLEMS OF BASIC MATHEMATICS* with Applications to Science and Technology. McGraw-Hill.

<https://brawijaya12.wordpress.com/wp-content/uploads/2011/08/schaums-outline-theory-and-problems-of-basic-mathematics-with-applications-to-science-and-technology-2nd-ed-kruglak-moore-mata-toledo-1998-mcgraw-hill.pdf>

SCIENCES GROUP

Biology:

Recommended Key Textbooks:

Model Textbook of Biology for Grade 9. Cantab Publisher (Based on National Curriculum of Pakistan 2022-23)

The Textbook of Biology For Class 9. Sindh Textbook Board, Jamshoro

Textbook of Biology Grade 9. National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-23)

Biology 9. Punjab Curriculum and Textbook Board, PLD Publishers, Lahore

Reference Books:

Lam Pang Kwan and Eric YK Lam. *Biology A course for O Level.* Singapore Federal Publication

D. G. Mackean, and Dave, Hayward. *Cambridge IGCSE Biology (4th Edition).* HODDER EDUCATION (UK)

Ron, Pickering. *Cambridge IGCSE® & O Level Complete Biology Fourth Edition.* Oxford University Press.

Raven, Johnson, Kenneth A. Mason, Jonathan B. Losos, and Tod Duncan.

Biology (13th International Student Edition). McGraw Hill Publisher.

Websites:

<https://open.oregonstate.education/generalmicrobiology/chapter/introduction-to-viruses/>

<https://rwu.pressbooks.pub/bio103/chapter/membrane-transport/>

<https://www.slideshare.net/slideshow/06-lecture-cells/43264468#72> (A Tour of the Cell)

<https://www.youtube.com/watch?v=URUJD5NEXC8&t=24s> (Biology: Cell Structure I Nucleus Medical Media)

<https://www.youtube.com/watch?v=SSS3EtKAzYc&t=128s> (Egg Osmosis (Hypertonic vs. Hypotonic Solution))

<https://www.youtube.com/watch?v=nCxN-k9bK5w> (The Human Respiratory System Explained)

<https://www.youtube.com/watch?v=Dr0WVeJaHS8> (What are Enzymes & How Do They Work?)

https://www.youtube.com/watch?v=pVoytz_3H_s (Enzymes: The Induced Fit Model)

<https://www.youtube.com/watch?v=ueup2PTkFW8> (Enzymes and Activation Energy)

<https://www.youtube.com/watch?v=fAM4dMNHxh0> (MECHANISM OF PHOTOSYNTHESIS PART 01)

<https://www.youtube.com/watch?v=Le7KOX91w7U> (Photosynthesis Intro and Light-Dependent Reactions)

https://www.youtube.com/watch?v=ZbikuS_19X8 (Photosynthesis Limiting Factors - GCSE Biology)

<https://www.youtube.com/watch?v=WsqP1O7388g> (Aerobic and Anaerobic Respiration)

<https://www.youtube.com/watch?v=DV8xU0XPW3E> (Leaf Structure - GCSE Biology in 2 Minutes)

<https://www.youtube.com/watch?v=eBI3U-T5Nvk> (Cellular Respiration)

<https://www.youtube.com/watch?v=tRIpwPD3gc8> (SWALLOWING OR DEGLUTITION - ANATOMY AND PHYSIOLOGY)

https://www.youtube.com/watch?v=_T_vmcLyTzI (How the Digestive System Works | 3D Animation)

<https://www.youtube.com/watch?v=5BeCEO96LFg> (The Intestinal Villi Explained || Absorption)

<https://www.youtube.com/watch?v=kM3zVCm8jT8> (Role of the Lacteal in Lipid Transport)

https://www.youtube.com/watch?v=_qmNCJxpsr0- (Human Circulatory System)

<https://www.youtube.com/watch?v=mLmKq5bQOg0> (Myocardial Infarction and Coronary Angioplasty Treatment, Animation)

<https://www.youtube.com/watch?v=fSEFXI2XQpc&t=170s> (Immune System)

<https://www.youtube.com/watch?v=fSEFXI2XQpc&t=170s> (How Does Your Immune System Works? What Is Immune System?)

<https://www.youtube.com/watch?v=P6ioHoI-VZ4> (Immunisation and types of immunity / Active and passive immunity)

<https://www.youtube.com/watch?v=-muIoWofsCE> (How do vaccines work?)

<https://www.youtube.com/watch?v=gExUCrpAKyQ> (Platelets & Blood Clotting)

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Chemistry:

Recommended Key Textbook:

Chemistry for Grade 9, National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-2023)

Reference Books:

Chemistry 9, Caravan Book House, Lahore.

Chemistry for Class IX, Sindh Textbook Board, Jamshoro.

Chemistry for Class 9, Punjab Textbook Board, Lahore.

Tan Yin Toon, Chen Ling Kwong, John Sadler and Emily Clare, *Chemistry Matters G.C.E. 'O' level*, Marshall Cavendish Education.

Christopher N. Prescott, *Chemistry, A Course for 'O' Level*, Marshall Cavendish Education.

Rose Marie Gallagher and Paul Ingram, *Complete Chemistry*, Oxford University Press.

Dr Rex M. Heyworth and J. G. R. Briggs, *All About Chemistry 'O' Level*, Hodder Education Singapore.

Websites:

<https://www.usetute.com.au/index.html>

<https://www.chemguide.co.uk>

<https://www.bbc.co.uk/bitesize/subjects/znxyrd>

<https://phet.colorado.edu/>

<https://www.britannica.com/browse/Chemistry>

<https://chem.libretexts.org/Bookshelves>

FOR TEACHING AND LEARNING ONLY

Physics:

Recommended Key Textbook:

Punjab Textbook Board (2012). *Physics 9*. Lahore: Punjab Textbook Board.

Reference Books:

John Avison, (Rev Edition). *The World of Physics*. Nelson.

Abbot, A. F. (1989). *Physics*. India: Heinemann Educational Publishers.

PHYSICS a course of O Level, Second Edition, Charles Chew, Leong See Cheng, Chow Siew Foong

Duncan, Tom and Kennett, Heather. South Asia Edition, *Cambridge IGCSE Physics*, (3'd Ed). Hodder Edition.

Caravan book house 2021, Physics 9

Sindh Textbook Board (2021). *A Textbook of Physics for Classes IX*. Jamshoro: Sindh Textbook Board.

Websites:

<http://phet.colorado.edu/>

<http://www.123physics.com>

<http://www.physicsclassroom.com/class>

<https://asana.com/resources/accuracy-vs-precision>

<https://www.britannica.com/science/scientific-method>

<https://ebooks.stbb.edu.pk/english/class-ix?sfnsn=scwspwa>

<https://scied.ucar.edu/learning-zone/earth-system/electromagnetic-spectrum>

<https://manoa.hawaii.edu/exploringourfluidearth/physical/world-ocean/map-distortion/practices-science-precision-vs-accuracy>

<https://steemit.com/steemstem/@shehzad/basics-of-production-transmission-and-reception-of-electromagnetic-waves-radio-waves>