

List of Learning Resources (Compiled) for Higher Secondary School Certificate Part 1 (HSSC I)

ONLINE RESOURCES (across Subjects and Grades)

17 1. 1 DI. 46	
Knowledge Platform* https://akueb.knowledgeplatform.com/login	
mips.//akuev.knowieugepiaijorm.com/iogin	
Punjab Curriculum and Textbook Board	
https://pctb.punjab.gov.pk/E-Books	
Y	
Cantab Publishers*	
https://cantabpublisher.com/	
Phet Interactive Simulations	
https://phet.colorado.edu/	
Y	国都海流
* C. basiciption and/on munch as a required	

^{*} Subscription and/or purchase required

COMPULSORY SUBJECTS

English Compulsory:

Recommended Key Textbooks:

Model Textbook of English 11. Cantab Publisher (Based on National Curriculum of Pakistan 2022-23)

Textbook of English Grade 11. National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-23)

English Grammar and Composition for Intermediate Classes, Punjab Curriculum and Textbook Board, Lahore

English as a Second Language Coursebook, Lucantoni, P, Cambridge University Press English Skills for Class XI, Fazullah, F and Kazi, A, 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

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

Urdu Compulsory:

Recommended Key Textbook:

یہ **طور درسی کتاب:**'ہاڈل درسی کتاب،اُر دو، گبار ھوس جماعت کے لیے، نیشنل ٹک فاؤنڈیشن یہ طور و فاقی ٹیکسٹ ٹک بورڈ،اسلام آباد' (قومی نصاب۲۰۲۲ءکے مطابق)

Reference Books:

- اصافِ ادب، رفیع الدین ہاشی ·
- اردو قواعِد وانشا، برائے نهم، دېم، پنجاب كريكولم ايند شيست بك بورد، لا مور
 - اردوادب کی مخضر تاریخ، ڈاکٹر انورسدید، مقتدرہ قومی زبان، اسلام آباد

 - تذکرے اور تبصرے، سراخ الاسلام
 بچوں کے رسائل (نونہال / جگنو / تعلیم وتربیت وغیرہ)
 - مختلف روزنامه اخبارات (جنگ /ایکسپریس / نوائے وقت وغیرہ)
 - فيروز اللغات اردو،مولوي فيروز الدين، فيروز سنز،لا ، ور / كراچي / پيثاور
 - فرہنگِ تلفظ،شان الحق حقی، مقتدرہ قومی زبان، اسلام آباد
 - اُردومتر ادفات (تھیپارس)،احسان دانش

Websites:

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

(اصناف ادب، رفيع الدين ماشمي، سنگ ميل پيليكيشنر)

https://www.taleem360.com/9th-and-10th-class-urdu-qawaid-o-insha-text-book-by-punjabboard-vfg#google vignette

(ار دو قواعِد وانشابرائے نہم و دہم، پنجاب کریکولم اینڈ ٹیکسٹ بک بورڈ،لاہور)

https://xn--mgbqf7g.com/

(اردو گاه_روزم ه، محاورات، کهاو تیں وغیر ه)

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

(قافیه ،ر دیف، مطلع و مقطع)

علم بیان کی تعریف | Ilm e Bayan Ki Tareef | Urdu Notes

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

(علم بديع)

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

(البديع، عابد على عابد، مجلس ترقى أدب، لا هور)

https://www.bbc.com/urdu

(بی بی سی۔ اردو، برائے سمعی وخوانی مہارت)

https://jang.com.pk

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

(جنگ، برائے سمعی وخوانی مہارت) (ایکسپرلیل، برائے سمعی وخوانی مہارت)

https://www.humsub.com.pk

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

https://udb.gov.pk/

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

(اُردومتر اد فات (تھییارس)،احسان دانش)

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

(تبصره نگاری)

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

(کہانی نویسی)

https://youtu.be/KVbvMxbOSF4?si=jZcNftUkCXNWFW3n

(مكالمه نگاري)

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

(خطنویسی)

https://archive.org/details/texts

(آر کائنو، برائے مطالعہ ، برقی کت،خوانی مہارت)

Mathematics:

Recommended Key Textbooks:

Mathematics Grade 11. Punjab Curriculum and Textbook Board, Lahore Mathematics Grade 12. Punjab Curriculum and Textbook Board, Lahore

The Textbook of Mathematics for Class 11. Sindh Textbook Board (Test Edition- 2022) The Textbook of Mathematics for Class 12. Sindh Textbook Board (Test Edition- 2022)

Reference Books:

Model Textbook of Mathematics Science Group Grade 11. National Book Foundation as Federal Textbook Board, Islamabad (Based on National Curriculum of Pakistan 2022-23)

Model Textbook of Mathematics Science Group Grade 12. 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 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 IGCSE*TM and O Level Additional Mathematics Coursebook. Cambridge University Press.

Online Reference Books:

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

Barnett, R., Ziegler, M., Byleen, K. and Sobecki, D. (2010, 9th Edition). *College Algebra with Trigonometry*. McGraw Hill Higher Education.

https://marinazahara22.wordpress.com/wp-content/uploads/2013/10/college_algebra_with_trigonometry.pdf

Crowell, R. and Slesnick, W. (version 3.0.3, 2008). *Crowell and Slesnick's Calculus with Analytic Geometry*. Free Software Foundation https://math.dartmouth.edu/~doyle/docs/calc/calc.pdf

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

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

Rayner, D. (2000). *Extended Mathematics for IGCSE*. **Oxford University Press**. https://www.pdfdrive.com/extended-mathematics-for-igcse-e183809326.html

SCIENCES GROUP

Biology:

Recommended Key Textbooks:

Ubaid ur Rehman Baig, *A Textbook of Biology for Grade 11*. Cantab Publisher, Lahore (Aligned with the National Curriculum of Pakistan 2022-23)

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

Model Textbook of Biology Grade 11. National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-23)

Biology 11. Punjab Curriculum and Textbook Board, PLD Publishers, Lahore

Reference Books:

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

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

Kenneth A. Mason, Jonathan B. Losos, and Tod Duncan, *Understanding Biology (Fourth Edition)*. McGraw Hill Publisher

Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky and Rebecca B. Orr. *Campbell Biology (12th Edition)*. Published by Pearson (July 13, 2021) © 2021

Michael Kent. Advanced Biology. Oxford University Press

Glenn Toole, Susan Toole and Stephanie Fowler. *Context for International Cambridge International As and A Level (2nd edition)*. Oxford University Press

Websites

https://www.youtube.com/watch?v=43WkdI0OE-0 (X Ray Crystallography Animation)
https://www.youtube.com/watch?v=j4HgLf_eJoc (Structure determination of proteins by X ray Crystallography)

https://www.creative-biostructure.com/comparison-of-crystallography-nmr-and-em_6.htm https://microbenotes.com/biological-databases-types-and-importance/

https://www.creativebiomart.net/resource/principle-protocol-x-ray-crystallography-393.htm https://www.youtube.com/watch?v=mI1P8aQpG-o (Calculating magnification and actual size of specimens)

<u>https://www.youtube.com/watch?v=brb-Qy7KCYc</u> (Calculating Magnification)

https://www.youtube.com/watch?v=zEZFl3MsmY0 (3 Stages of Cell Signaling)

https://www.youtube.com/watch?v=evH0I7Coc54 (What are stem cells? - Craig A. Kohn)

https://www.youtube.com/watch?v=i-QSurQWZo0 (What are Induced Pluripotent Stem Cells? (iPS Cells))

https://alevelbiology.co.uk/notes/stem-cells-a-general-

overview/#:~:text=Classification%20of%20Stem%20Cells,into%20any%20specific%20cell

%20type. (Stem cells: A General Overview)

https://www.youtube.com/watch?v=5Hp2v_2Qy1g (Monophyly Paraphyly Polyphyly | Classification)

https://www.differencebetween.com/difference-between-monophyletic-and-vs-paraphyletic-and-vs-polyphyletic/ (Difference Between Monophyletic Paraphyletic and Polyphyletic) https://www.youtube.com/watch?v=PlSvywlLuNw (HIV Life Cycle | HHMI BioInteractive Video)

https://www.healthline.com/health/hiv-life-cycle#binding (Stages of the HIV Life Cycle) https://www.youtube.com/watch?v=a7VrP8jc0Ng (Photosynthesis Part 6 Action vs Absorption Spectrum IB Biology)

https://www.youtube.com/watch?v=cdybsxDQjxg (The Oxygen Hemoglobin Dissociation Curve EXPLAINED!)

https://www.youtube.com/watch?v=IS9TD9fHFv0 (The Cardiac Cycle, Animation)
https://www.youtube.com/watch?v=ScZVGHDisa0 (Cardiac Conduction System and Understanding ECG/EKG - Updated 2024, Animation)

https://www.youtube.com/watch?v=cSmiiYJBLrU (Biology Help: What is Cardiac Output? w/ example)

https://www.youtube.com/watch?v=vFRkSB46bl8 (Cardiac Output, Stroke volume, EDV, ESV, Ejection Fraction)

https://www.youtube.com/watch?v=nqRn5fN22t4 (Cellular Immunity - Adaptive Immunity part 1, Animation)

https://www.youtube.com/watch?v=rAepZG_ChyQ (Humoral Immunity - Adaptive Immunity part 2, Animation)

https://www.youtube.com/watch?v=1KdlU1sQcyc (How your immune system works) https://www.youtube.com/watch?v=6gHjx_hYA14 (Opsonization (FL-Immuno/11) https://www.youtube.com/watch?v=E4dZ5w3D9ZM (The Complement System) https://www.youtube.com/watch?v=CNPwxbeP7B8 (Hybridoma Technology for the

Production of Monoclonal Antibodies)

https://www.youtube.com/watch?v=dxnjAc-rqz8 (How Monoclonal Antibodies Treat Cancer)

Chemistry:

Recommended Key Textbook:

Chemistry for Grade 11, National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-2023)

Reference Books:

Chemistry for Class XI, Punjab Textbook Board, Lahore.

Chemistry for Class XI, Sindh Textbook Board, Jamshoro

E. N. Ramsden, *A-level Chemistry*, Stanley Thornes (Publishers) Ltd.

Christopher N. Prescott, Chemistry, A Course for 'O' Level, Federal Publications.

Jim Clark, Calculations in AS/A Level Chemistry, Longman, 2000

Bryan Earl Doug Wilford, *Cambridge IGCSE Chemistry* (Third Edition), Hodder Education Michael Clugston and Rosalind Flemming, *Advanced Chemistry*, Oxford University Press.

Philip Mathews, Advanced Chemistry (Physical and Industrial) Cambridge University Press.

Peter Cann and Peter Hughes, Cambridge International AS and A Level Chemistry, Hodder Education

Lawrie Ryan and Roger Norris, *Cambridge International AS and A Level Chemistry Coursebook*, Cambridge University Press

Websites:

https://www.ausetute.com.au/index.html

https://www.chemguide.co.uk

https://phet.colorado.edu/

https://chem.libretexts.org/Bookshelves

www.rsc.org/Learn-Chemistry/

https://openstax.org/books/chemistry-2e/pages/13-introduction

https://www.masterorganicchemistry.com/

Physics:

Recommended Key Textbook:

National Book Foundation. *Physics 11 and 12*. Islamabad: Federal Textbook Board.

Reference Books:

Paul G. Hewitt, Conceptual Physics twelfth Edition: Pearson.

Schaum's Outline, Murray R. Spiegel, Vector Analysis: McGraw-Hill.

Halliday and Resnick, Fundamental of Physics: Walker Wiley India Pvt. Ltd. (Volume 1).

Sears, Zamansky and Young Addison, College Physics. New York: Wesley Publication Co.

Richard-Woodside, Cambridge-International As And A-Level Physics-Revision-Guide-Second-Edition.

Nelkon and Parker. (Seventh edition). *Principles of Physics*. Heinemann: Collins Int'l Textbooks.

David Sang, Graham Jones, Gurinder Chadha and Richard Woodside, *Cambridge International AS and A Level Physics Coursebook Second Edition*: Cambridge university press.

Sindh Textbook Board. Textbook of Physics for Class XI. Jamshoro: Sindh Textbook Board.

Websites:

http://phet.colorado.edu/

https://www.ophysics.com/r9.html

https://www.geogebra.org/m/d6n6rk9N

https://www.walter-fendt.de/html5/phen/

https://www.vascak.cz/?id=1&language=en#kapitola14

https://www.physicsclassroom.com/Physics-Interactives

https://www.ck12.org/book/ck-12-physics-intermediate/

https://learncheme.com/simulations/thermodynamics/thermo-1/

https://learncheme.com/quiz-yourself/interactive-self-study-modules/carnot-cycle/carnot-cycle-simulations/

HUMANITIES GROUP

Civics:

Recommended Key Textbooks:

English Medium:

- 1. Elements of Civics by Mazharul Haq, Bookland Publisher for intermediate classes
- 2. Civics of Pakistan by Mazharul Haq, Bookland Publisher

Urdu Medium:

3. <u>Ilm-e- Maddianiat (Civics for first year)</u> By Dr Azam published by Ghazanfar publishers

Reference Books:

English Medium:

- Creating Better World: Education for Citizenship Human Rights Conflict Resolution by Bernadett L.Dean Rahat Joldoshalieva and Fazilat Sayani, Published by Aga khan University Education Department.
- 2. Civic education for diver citizens in Global times, rethinking theory and practice; Edited by Beth C. Robin & James M. Giarelli
- 3. An introduction to law and human rights for young people in the commonwealth by John Hatchard (commonwealth secretariat)
- 4. Human Rights: New Dimensions and Challenges, edited by Janusz Symonides
- 5. Learning Citizenship by Jenny Wales, Paul Clarke, Published by The Nuffield Foundation
- 6. Civics (for first year) By Professor Choudhary Ahsanullah
- 7. Introduction to Political Science by Prof. Dr. Muhammad Sarwar Published by Ilmi Kitab Khana
- 8. Intermediate Civics (Part I) by Prof. Sanwal Hussain Kharl, Published by Dogars Publishers Editorial Board
- 9. Beginners Civics (for intermediate) by Dr Salahuddin, Prof.A.S.Bukhari, M.Ikram Chaghatai published by Aziz Book Depot (Lahore)
- 10. 200 Questions On Civics by A.S.Bukhari, H.Rahman, Rabia Bukhari, S.M.Najam
- 11. Rah-e- Maddaniat by Prof. Muhammad Niaz Siddiqui published by Ahmed Academy.
- 12. Political Thinkers: from Socrates to Present by David Boucher and Paul Kelly, by Oxford University Press
- 13. A Concise History of Western and Islamic Political Thought by Arshad Syed Karim, Publisher, Jehangir's World Time Publication
- 14. Political Science (Theory and Practice) by Mazharul Haq, Bookland Publisher

- 15. Pakistan Studies Intermediate by Dr Abdul Qadir Khan published by National Book Foundation, Islamabad
- 16. Governance, Politics and the State by Jon Pierre & B.Guy Peters, Published by Palgrave Macmillan
- 17. Introduction to Political Science by Mark Carl Rom, Georgetown University, Masaki Hidaka, American University, Rachel Bzostek Walker, Collin College
- 18. Peace Building, Citizenship and Identity by Christina Parker, published by Sense Publishers
- The Challenge of Enlightenment, Conflict Transformation and Peace in Pakistan by Dr. Moonis Ahmer, Published by Routledge
- 20. A Historical and Contemporary Look by Farooq Naseem Bajwa. Oxford University Press, Pakistan.
- 21. Constitutional and Political History of Pakistan 2001 by Hamid Khan. Oxford University Press, Pakistan.
- 22. Pakistan's Foreign Policy 1947-2016: A Concise History by Abdul Sattar, Oxford University Press, Pakistan

Urdu Medium:

- 1. ייאָעײַ (Civics 11) by Punjab Curriculum and Textbook Board

 https://drive.google.com/file/d/14uhOVjM1vc7uPc7qv-k6lUNDwUo1v5-K/view
- 2. شهریت (Civics 12) by Punjab Curriculum and Textbook Board

 https://drive.google.com/file/d/1alJkhKZwl1xcxl067mwF64qUCWUZ1qIM/view
- 3. گیار هویں جماعت by Khyber Pakhtunkhwa Textbook Board, Peshawar
- 4. شہریت برائے بار ہویں جماعت by Khyber Pakhtunkhwa Textbook Board, Peshawar
- 5. بار هوین جماعت published by Punjab Textbook Board Lahore
- 6. مطالعہ پاکستان برائے نہم by GFH Publisher
- 7. بہتر دنیا کی تخلیق تعلیم برائے شہریت، حقوق انسان اور پر امن تصفیہ (برناڈیٹ ایل ٹین، راحت جولدوشالیفا اور فضیلت سیانی۔
 - Published by Aga Khan University Education Department.

Websites:

https://www.oxfam.org.uk/educati on/who-we-are/what-is-global-citizenship

https://www.ecp.gov.pk/frmGenericPage.aspx?PageID=3031

https://ecp.gov.pk/storage/files/1/eleclaws18.pdf

https://www.researchgate.net/publication/372647223_lbn_Khaldun's_Perspective_on_the_Socia

1 Contract Bai'at and Its Implementation in the State System

https://journal.walisongo.ac.id/index.php/JISH/article/view/16360/pdf

https://www.ajis.org/index.php/ajiss/article/download/1979/2332

https://cdn.mises.org/1_3_3_0.pdf

https://www.researchgate.net/publication/372647223_Ibn_Khaldun's_Perspective_on_the_Social_Contract_Bai'at_and_Its_Implementation_in_the_State_System

https://journal.walisongo.ac.id/index.php/JISH/article/view/16360/pdf

https://www.ajis.org/index.php/ajiss/article/download/1979/2332

https://cdn.mises.org/1_3_3_0.pdf

https://www.structural-learning.com/post/social-contract-theory#:

https://openstax.org/books/introduction-political-science/pages/1-introduction

https://www.undrr.org/

https://www.researchgate.net/publication/344626608_PEACE_RESEARCH_CHALLENGE_AND_AN_OPPORTUNITY_MOONIS_AHMAR

https://www.academia.edu/22222830/Role of Political Parties in the Democratic System of Pakistan

https://globalchallenges.org/global-governance/what-is-global-governance/

Video links:

https://www.youtube.com/watch?v=5rbiOGs4AOM

https://www.youtube.com/watch?v=KuKzq9EDt-0

https://www.youtube.com/watch?v=cazssbSLqVQ

https://www.youtube.com/watch?v=rhtEuH2G6bg

https://www.youtube.com/watch?v=I-F7VnSQcg0&t=396s (UNO)

https://www.youtube.com/watch?v=snXhtOpSXtI (NATO)

https://www.youtube.com/watch?v=Fx-1xq1yFDY (SAARC)

https://www.youtube.com/watch?y=i6q0gIxg3Mc (African Union)

https://www.youtube.com/watch?v=SFeB9fMGJ9k (European union)

https://www.youtube.com/watch?v=MhvHoZCwR-g (Arab league)

https://www.youtube.com/watch?v=nuuFfECMt0E (WTO)

https://www.youtube.com/watch?v=Nn34zGF_RAs (IMF)

https://www.voutube.com/watch?v=gKpTL8KVv1O (World Bank)