

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

ONLINE RESOURCES (across Subjects and Grades)

17 1 1 DI 46 4	
Knowledge Platform*	
https://akueb.knowledgeplatform.com/login	
Punjab Curriculum and Textbook Board	
https://pctb.punjab.gov.pk/E-Books	
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Cantab Publishers*	
https://cantabpublisher.com/	
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Phet Interactive Simulations	
https://phet.colorado.edu/	
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^{*} Subscription and/or purchase required

COMPULSORY SUBJECTS

English Compulsory:

Recommended Key Textbooks:

Model Textbook of English 12. Cantab Publisher (Based on National Curriculum of Pakistan 2022-23)

English Skills for XII, Faizullah, F and Kazi, A, Oxford University Press

English as a Second Language Coursebook, Lucantoni, P, Cambridge University Press

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

Reference Books:

Grammar for GCSE English. Gould, M. and Kemp, B. (2013) Collins AQA GCSE English Language and Literature: Advanced Student Book, Darragh, P, Darragh, S, and others, Collins

English Grammar and Composition 12, Punjab Curriculum and Textbook Board, Lahore

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

https://www.ldoceonline.com/exercise/section-advanced-grammar/

https://www.weareteachers.com/literary-genres/

Urdu Compulsory:

Recommended Key Textbook:

بہ **طورِ درسی کتاب:**'ماڈل درسی کتاب،اُر دو،بار ھویں جماعت کے لیے، نیشنل بُک فاؤنڈیشن بہ طور و فاقی ٹیکسٹ بُک بورڈ،اسلام آباد' (قومی نصاب۲۰۲۲_۲۳۶ء کے مطابق)

Reference Books:

- اصافِ ادب، رفيع الدين ہاشي
- اردو تواعِد وانشا، برائے نهم، دېم، پنجاب كريكولم ايند شيست بك بورد، لا مور
 - اردوادب کی مخضر تاریخ، ڈاکٹر انور سدید، مقتدرہ قومی زبان، اسلام آباد
 - تذکرے اور تبھرے ، سراج الاسلام
 - بچوں کے رسائل (نونہال / جگنو / تعلیم وتربیت وغیر ہ)
 - مختلف روزنامه اخبارات (جنگ/ایکسپریس/نوائے وقت وغیره)
 - فيروز اللغات اردو، مولوي فيروز الدين، فيروز سنز، لا بهور / كراچي / پشاور
 - فرہنگِ تلفظ، شان الحق حقی، مقتدرہ قومی زبان، اسلام آباد
 - اُردومتر اد فات (تھییارس)،احسان دانش

Websites:

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

(اصناف ادب، رفيع الدين ماشي، سنگ ميل ببليكيشنز)

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

(اردو قواعِد وانشابرائے نهم ود ہم، پنجاب کریکولم اینڈٹیکسٹ بک بورڈ،لاہور)

https://xn--mgbqf7g.com/

(اردو گاه_روزمره، محاورات، کهاو تیس وغیره)

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

(قافیه ،ردیف ،مطلع ومقطع)

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

(علم بیان

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

(علم بديع)

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

(البديع، عابد على عابد، مجلس تر في ادب،لا ہور) https://www.bbc.com/urdu (لی لی سی۔اردو،برائے سمعی وخوانی مہارت) https://jang.com.pk (جنگ،برائے سمعی وخوانی مہارت) https://www.express.com.pk/ (ایکسپریس،برائے سمعی وخوانی مہارت) (ہم سب،برائے سمعی وخوانی مہارت) https://www.humsub.com.pk https://archive.org/details/pdf 20191115/mode/1up (اردوادب کی مخضر ترین تاریخ، ڈاکٹر سلیم اختر) https://udb.gov.pk/ (اُردولفت (تاریخی اصول پر)،اردولفت بورڈ) https://archive.org/details/TOOBAA-urdu-mutaradifat-ehsan-danisl (اُردومتر اد فات (تھیسارس)،احسان دانش) https://archive.org/details/1_20210926_202109/page/n3/mode/1up (تقریرنویسی) https://nazarurdu.blogspot.com/2019/02/blog-post 16.html?m=1#google vignette https://www.scribd.com/doc/61865121/%D8%A7%D8%B1%D8%AF%D9%88-%D9%85%D8%B6%D8%A7%D9%85%DB%8C%D9%86 https://jang.com.pk/news/870580 (رپورتاژ/رپورٹ) https://www.youtube.com/watch?v=0un9-YVDJ1M (خطنویسی) https://www.youtube.com/watch?v= PBK2Rpny4k https://archive.org/details/texts (آرکائیو،برائے مطالعہ،برقی کتب،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:

Model Textbook of Biology 12. Cantab Publisher, Lahore (Based on National Curriculum of Pakistan 2022-23)

The Textbook of Biology For Class XII. Sindh Textbook Board, Jamshoro Textbook of Biology Grade 12. National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-23)

Biology 12. Punjab Textbook Board, 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

Reference Websites:

https://www.youtube.com/watch?v=9_h0ZXx1lFw (Formation of Urine - Nephron Function, Animation.)

https://www.youtube.com/watch?v=CShAIAD-ask&t=93s (How Your Kidneys Work)

https://www.youtube.com/watch?v=pv5-GwJ90ZM (Animation E1, 1.1 Ultrafiltration and reabsorption)

<u>https://www.youtube.com/watch?v=-uRghmBCFZk</u> (Animation E1, 1.2 How does a dialysis machine work?)

https://www.youtube.com/watch?v=XbI8eY-BeXY (The Kidney & the Counter Current Multiplier)

https://www.youtube.com/watch?v=Tp9zQHj4JBs (Muscle contraction detail Concept Cell Biology)

<u>https://www.youtube.com/watch?v=BVcgO4p88AA</u> (Muscle Contraction - Cross Bridge Cycle, Animation.)

https://www.youtube.com/watch?v=9tfbVvfm96Y (How Your Muscles Work)

https://med.libretexts.org/Bookshelves/Anatomy_and_Physiology/Anatomy_and_Physiology_(Boundless)/9%3A_Muscular_System/9.1%3A_Introduction_to_the_Nervous_System/9.1B

<u>%3A Slow-Twitch and Fast-Twitch Muscle Fibers</u> (Slow-Twitch and Fast-Twitch Muscle Fibers)

https://thealevelbiologist.co.uk/forelimb-muscle-action-and-the-role-of-tendons/ (Antagonistic Muscle action)

<u>https://www.youtube.com/watch?v=iBDXOt_uHTQ</u> (Action Potential in Neurons, Animation.)

<u>https://www.youtube.com/watch?v=vLdNX5Te1Xo</u> (The Endocrine System, Overview, Animation)

https://www.youtube.com/watch?v=TgNwxF3aQpE (Mechanisms of Hormone Action)

https://www.youtube.com/watch?v=o_-6JXLYS-k (The Structure of DNA)

<u>https://www.youtube.com/watch?v=TNKWgcFPHqw</u> (DNA replication)

https://www.youtube.com/watch?v=gG7uCskUOrA (From DNA to protein)

https://www.khanacademy.org/test-prep/mcat/biomolecules/genetic-mutations/a/types-of-

mutations-and-their-notations (Types of mutations and their notations)

https://ib.bioninja.com.au/types-of-mutations/ (Types of mutations)

https://www.youtube.com/watch?v=Eekp-ZPObIg (The lac Operon- Positive and Negative Control)

https://www.youtube.com/watch?v=DnUgs16kyho (Meiosis, Animation)

https://www.youtube.com/watch?v=uS3aJ9bLsKU (Nondisjunction in Meiosis)

https://www.khanacademy.org/science/biology/céllular-molecular-biology/stem-cells-and-cancer/a/cell-cycle-checkpoints-article (Cell cycle Checkpoints)

https://old-ib.bioninja.com.au/standard-level/topic-1-cell-biology/16-cell-division/mitotic-index.html (Calculating mitotic index)

Chemistry:

Recommended Key Textbook:

Chemistry for Grade 12, National Book Foundation, Islamabad (Based on National Curriculum of Pakistan 2022-2023)

Reference Books:

Chemistry for Class XII, Punjab Textbook Board, Lahore.

Chemistry for Class XII, 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.

Michael Clugston and Rosalind Flemming, Advanced Chemistry, Oxford University Press.

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

Francis A. Carey, Organic Chemistry, The McGraw-Hill Companies.

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

Donald L. Pavia, Gary M. Lampman, George S. Kriz, *Introduction to Spectroscopy*, Cengage Learning Asia Pte. Limited

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/

www.particleadventure.org

https://www.savemyexams.com/

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

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

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

https://spark.iop.org/teaching-radioactivity-animations

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://www.slideshare.net/slideshow/nuclear-fission-fusion-ppt-animation/127676224

https://www.sciencephoto.com/media/727977/view/subatomic-nuclear-forces-animation

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. Ilm-e- Maddianiat (Civics for first year) 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
- 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
- 19. 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. شېرىت (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 ہار 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 ڈین، 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_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.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-1xg1yFDY (SAARC)

https://www.youtube.com/watch?v=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.youtube.com/watch?v=gKpTL8KVy1Q (World Bank)