

Developing Information and Communication Technology Textbooks for Classes IX to XII for Schools in Bhutan

Introduction

The current ICT Curriculum for classes 9 to 12 was developed and implemented from 2002. Over the years ICT in education has evolved which the current curriculum does not address adequately. In keeping with the developing trends of ICT in education, the Royal Education Council (REC) has developed ICT Curriculum Framework document to keep the curriculum dynamic and relevant. In line with the framework, ICT curriculum content has been developed for classes 4 to 8. REC would like to outsource the development of ICT textbooks for classes 9 to 12 for timely implementation of new curriculum.

The following Terms of Reference has been drawn up in line with Bhutan's Financial Rules and Regulations to define the scope of work for the participating authors and publishers in the development of the textbooks.

Terms of Reference

1. Purpose

The purpose of outsourcing the development of ICT textbooks is allow more authors and publishers to participate in the development of the textbooks. This will provide REC to have more and better options in selecting the best ICT textbooks that fulfil the learning outcomes in the ICT curriculum framework.

2. Deliverables

- a. Publishers, local or outside, will submit their specimen ICT textbooks for classes 10 and 12 to ICT Unit, REC, Paro. The specimen copies should match the final books to be supplied to the schools. Books with stapled or spiral binding or in e-book format will not be accepted.
- b. The books should be in colour. Appropriate colours are used for texts and illustrations.
- c. All books including those from independent authors should be routed through a licensed publisher with a copy of documentary evidences that include valid publishing license, and contract agreement between author and publisher.

3. Timeline

Date	Activity
10 – 12 February 2018	Announce in media.
31 October 2018	Last date for submission of sample books to REC by publisher.
5 - 9 November 2018	Review Committee evaluates and recommend books.
12 - 16 November 2018	Submission of the selected textbooks to Subject Committee for approval.
21- 30 November 2018	Working group moderates the selected books with the authors and chief editors.
1 Dec, 2018 – 28 Feb, 2019	Publishers incorporate changes and finalize the books. Publishers submit the books to REC.
1 March 2019	Submit to CTAB for approval.
29 March 2019	Curriculum developer incorporates the books in the prescribed booklist.
1 February 2020	Implementation in schools

4. Selection and Approval Process

4.1 Procedure

REC uses a five-stage process to review and approve all teaching and learning materials for schools. The same process will be applied to the selection of these books.

- a. Submission
- b. Review and Selection (Review Committee and Subject Committee)
- c. Moderation
- d. Approval
- e. Inclusion

4.2 Selection

- a. The Review and Subject Committees will evaluate the books using the criteria laid down in the TEXTBOOK EVALUATION FORM (Appendix 1).
- b. The members of the Review Committee, Subject Committee and CTAB (Curriculum and Technical Advisory Board), must sign “INTEGRITY PACT” to declare Conflict of Interest as mandated by ACC.
- c. Review and Subject Committees shall select the books based on the ratings. If the committees deem the ratings to be low, they have the right to reject the book(s).
- d. The selection of books made by the Review Committee and Subject Committees shall be final and binding.
- e. The results shall not be made public. The participating publishers will be notified about the result. However, the participating publishers may view the consolidated result sheet only upon a formal request to REC.
- f. Any books found to be using plagiarized materials shall be rejected.

4.3 Moderation

- a. The approved textbooks shall be moderated by a team of teachers, teacher educators, and subject specialists together with the author and/or chief editor.
- b. The author(s) and/or chief editor should participate in the moderation process at their own expense and will incorporate the suggestions from the moderators.
- c. Non-participation of the author(s) and/or chief editor for moderation shall result in rejection of the textbook; and the Subject Committee shall consider the standby textbook for moderation.
- d. The publisher shall incorporate the changes and submit the updated textbook to REC on or before the set date.

5. Textbook Revision and Reprint

- a. Minor amendments such as correcting typographical and grammatical errors, labels and illustrations in the textbooks shall be done in consultation with both the parties involved without affecting the agreed price of the book.

- b. When minor amendments have been made to a textbook, the publisher shall include the year of reprint as footer. For example, Reprint 2020.
- c. Major amendments such as addition, deletion or replacement of topics/ sub-topics/paragraphs, diagrams and illustrations in the textbooks shall be done in collaboration with both the parties involved. Major amendments shall not exceed 10 pages.
- d. Major amendments will be considered at the end of the third year of textbook adoption. The increase in the price of the book should not exceed 10% of the original price.
- e. When major amendments have been made to a textbook, the publisher shall include the year of edition as footer. For example, Revised Edition 2020.

6. Contracts and Agreement

6.1 Price Agreement

- a. The Publisher should submit the duly signed PRICE AGREEMENT FORM along with the specimen textbooks to the REC.
- b. The price of the book quoted in the PRICE AGREEMENT FORM shall be considered as final. However, the REC reserves the right to negotiate the price if deemed unreasonable and a new price agreement will be drawn.

6.2 Copyright

- a. Publisher will ensure that the book does not infringe on other's copyrights and that the REC shall not be held responsible in any way for the issues emerging thereof.
- b. If the Publisher intends to sell the copyright of the book(s), the COPYRIGHT SALE FORM should be submitted along with the specimen textbook to the REC.

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**ROYAL EDUCATION COUNCIL
BHUTAN**

PRICE AGREEMENT

This **PRICE AGREEMENT** is made and entered into by and between the **Royal Education Council**, herein after referred to as **REC**, and _____

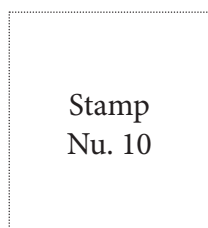
(Publisher), hereinafter referred to as Publisher, who mutually agree as follows:

1. The term of this agreement shall be valid for five years from _____ to _____.
2. The price of the following textbook is inclusive of all applicable taxes and transportation charges to schools.

Publisher			
Title		Grade	
Edition		ISBN	
Authors			
Price (BTN)			

3. The price shall be inclusive of cost that may incur due to increase in number of pages (maximum of 20 pages) during moderation or revision.
4. The price of the book agreed herein shall be non-negotiable for the period of three years, after which, publisher may request a one-time price increase of not more than 10% of the earlier price.
5. The Publisher shall supply the book to any school in the country at the agreed price during the term of this agreement.
6. In cases where the REC agrees to include a more recent copyright (“compatibility”) for an adopted textbook at the request of Publisher, the original agreed price shall prevail for the life of the agreement for both the original and compatible materials.
7. REC agrees that books agreed herein shall be used in the schools of Bhutan only.
8. Publisher will not hold REC responsible for any costs incurred in the development and moderation of their book(s).
9. The Publisher understands that REC may make this agreement available to all the relevant stakeholders.

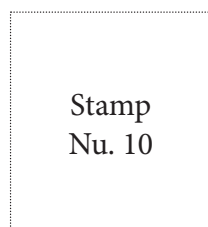
10. Implementation of New ICT Curriculum will be carried out in a phased manner starting with the schools which are ready in terms of access to broadband or lease line internet connectivity and computer facilities. The number of books to be supplied to the school will depend on the readiness of the schools to implement the curriculum and on the textbook life which is currently kept at a minimum of 3 years for the subsequent years. However, the Publisher shall supply the book as requested by the schools irrespective of the quantity requested.
11. Non-compliance to any one of the above clauses will result in the termination of the agreement.



Authorized Signature

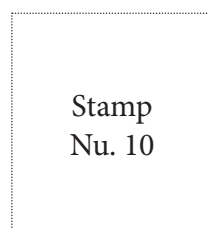
Date: _____

Publisher



Signature of the Head of Agency
Royal Education Council

Date: _____



Witness _____

Date: _____

Address _____

BOOK EVALUATION FORM

Part A:

Book Code _____

Evaluator's Name and Signature _____

PART B: Criteria for the selection of the Textbook

DIRECTION

For each criterion, use the rating scale given below. Where required provide your comments to clarify your rating.

Section 1: Content of the book

3 = Fully evident; 2 = Evident; 1 = Little or no evidence

Sl. No	CRITERIA	Rating	Multiply rating by	Total	Comments
1	Introduction to the chapters and topics. <i>Sets context to chapters and topics clearly.</i>		1		
2	The content of the book meets the requirements of the course (ICT curriculum framework) <i>Look for alignment to the aims / learning outcomes / guiding principles laid down in the curriculum framework.</i>		4		
3	The materials focus and continually revisit on big ideas and, or essential questions. <i>Look for the extent to which the materials contain a number of big ideas – concepts, themes, issues, and includes provocative essential questions around which knowledge is examined. Content presentation use varieties of DARTs such as flow chart, cartoon concepts, completing the diagram, completing table, etc.</i>		4		
4	The materials include valid and varied assessments. <i>Look for a variety of assessments methods used and balance between traditional and competency based assessment, and between summative and formative assessments. Look for the validity of the assessments in terms of the connections between the assessments and the goals of the materials.</i>		4		

Evaluator's Signature

Sl. No	CRITERIA	Rating	Multiply rating by	Total	Comments
5	<p>The materials contain effective and engaging activities.</p> <p><i>Look for activities that help students explore their understanding, inquire into essential questions, promote interaction between teachers and students, and amongst students, motivate learning, and help students build knowledge, skills and imbibe values.</i></p>		4		
6	<p>The contents presented are developmentally appropriate.</p> <p><i>Look for the contents presented in different forms/styles suitable for the age group and encourage high order cognitive skills. Materials cover relevant concepts and opportunities to develop skills and attitudes. Language used is appropriate to the age group.</i></p>		2		
7	<p>The materials are geared towards the diverse abilities and interests of students.</p> <p><i>Look for ways that materials and strategies incorporate the multiple intelligences and learning styles. Materials are sensitive to gender, caste, religion and special needs.</i></p>		3		
8	<p>The materials encourage interdisciplinary connections.</p> <p><i>Look for ways that the materials encourage interdisciplinary connections, such as applying skills and processes across disciplines.</i></p>		1		
9	<p>The materials and instructions are well organized and easy to use (reader friendly).</p> <p><i>Look at how concepts, ideas and processes are organized and made explicit, how well developed and organized is each unit and lesson, how materials and assessments are integrated and how are outside materials accessible.</i></p>		3		

Evaluator's Signature

Sl. No	CRITERIA	Rating	Multiply rating by	Total	Comments
10	<p>The content includes outside experiences, including family & community involvement as part of the learning experience.</p> <p><i>Look for authentic learning experiences that have link with the learners' environment (social, cultural and spiritual) on a continuum. Also, look for opportunities for parents to work with their children in order to supplement understanding based learning experiences.</i></p>		1		
11	<p>Content embeds the concepts of 21st Century education.</p> <p><i>Consider to what extent the materials encourage the development of 21st Century skill such as collaboration, creativity and innovation thinking, communication, and critical thinking and problem solving. Materials attempt to engage students with the real world data, tools, and support the development of life skills vital in the learners' future life.</i></p>		3		
12	<p>Tasks encourage the development and application of higher level thinking skills.</p> <p><i>Tasks in the form of assessment, or learning activities encourage higher level of thinking and induce the ability to construct knowledge.</i></p>		4		
13	<p>Information is accurate, current and researched based, and easy to understand.</p> <p><i>The explanations of concepts are well grounded, and supported with multiple examples, which have relevance to the current time that are grammatically structured for easy comprehension.</i></p>		3		
14	<p>Language is clear and age appropriate, and contributes to ICT language development.</p> <p><i>The materials provide means for the development of ICT language.</i></p>		4		

Evaluator's Signature

Sl. No	CRITERIA	Rating	Multiply rating by	Total	Comments
15	Diagrams and photographs are accurate, correctly labelled and easy to understand. <i>Visuals are labelled correctly, engaging, relevant and appropriate. Visuals support the texts with charts, graphs, pictures for better understanding of the concepts.</i>		4		
16	Concepts are developed and reinforced with relevant practical works. <i>Consider the extent the learning experiences help the development and reinforcement of knowledge and skills integrated in activities or through the formal practical works.</i>		4		
17	Provides additional support materials. <i>Online, offline (In CD and DVDs) or both are provided along with the textbooks that aid learning and further reinforcement of knowledge, skills and values.</i>		1		
	Subtotal A				

Section 2: Content Organization

3 = Fully evident; 2 = Evident; 1 = Little or no evidence

CRITERIA	RATING
Useful table of contents and glossary.	
Layout is consistent; chapters/units are arranged logically;	
Reference list or tips for further reading are provided.	
Chapter summary is provided.	
Well-designed end of the chapter questions provided.	
Appropriate and well-designed explore further activities provided.	
Well-designed end of the year activity is provided.	

Evaluator's Signature

Weblink(s) is/are provided.	
Subtotal B	

Section 3: Book Layout and Format

3 = Fully evident; 2 = Evident; 1 = Little or no evidence

CRITERIA	RATING
Texts and illustrations are in appropriate colours.	
Clarity of texts (size and print quality).	
Clarity of illustrations (size and print quality).	
Layout is visually appealing.	
Good paper quality.	
Strong binding.	
Good quality cover.	
Subtotal C	

Total Points = Subtotal A + Subtotal B + Subtotal C =

Section 4: Strengths and Weaknesses of the Book

Strengths	Weakness

Circle one of the following

Highly Recommended	Recommended	Not Recommended
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Signature: _____ Date: _____

Name of Evaluator: _____

Designation: _____

Address: _____

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BHUTAN

COPYRIGHT SALE AGREEMENT

PARTIES OF THE AGREEMENT

Copyright owner _____
(hereinafter referred to as Author/Publisher)

Title of the book _____
(hereinafter referred to as the “Material”),

Copyright buyer _____
(hereafter referred to as “REC”)

SUBJECT OF THE AGREEMENT

A. Copyright

1. The copyright of the Material shall be deemed sold from Author/Publisher to REC and shall come into effect from the date this agreement is duly signed by both the parties.
2. REC hereinafter holds the exclusive rights to the Material, including the rights to translate, reproduce, republish, transfer, license (or give permission to) third parties, distribute, or otherwise use the material worldwide in full or parts contained therein, for all forms and formats of publication, and in derivative works thereof.
3. The Author/Publisher hereinafter holds NO rights to the Material, including the rights to translate, reproduce, republish, transfer, license (or give permission to) third parties, distribute, or otherwise use the materials worldwide in full or parts contained therein, for all forms and formats of publication, and in derivative works thereof.
4. The Material published by REC shall mention Author/Publisher, and if published earlier, the first publisher and the year of its first publication.

B. Reserved Rights

1. The Author/Publisher of the Material shall retain the patent and trademark

rights to any process or procedure described in the Material.

C. Author/Publisher guarantee

1. The Author/Publisher guarantees that the Material is an original work, and have not been published previously in any other forms than the stated form delivered to REC.
2. In case of joint authorship, the representing Author/Publisher guarantees that other authors were informed of the terms of this Agreement and obtained their authorization to sign on their behalf.
3. In case the Material contain copyrighted content the Author/Publisher guarantees to obtain written permission from the copyright holders for all types of usage as mentioned in Clause 2.
4. The Author/Publisher guarantees that the Material do not :
 - contain libelous statements.
 - infringe on other persons' rights (including copyrights, patent rights and trademark rights).
 - disclose of any secret or confidential information.

D. Validity of the Agreement.

1. The Copyright Sale Agreement will come into force when the CTAB approves the purchase of the copyright and both parties sign the agreement.

E. Price Agreement.

1. Author/Publisher agrees to sell the copyright of the Material for the proposed price of Nu. _____, which may be subject to negotiation if selected and approved.
2. The price agreement between the two parties shall be complete by signing the SALE DEED.
3. The price agreed as per the SALE DEED is treated as final and binding and thereby not subjected to further negotiations and is not affected by the future inflations.
4. The payments arrangement for the sale of copyright of the material will be made as per the schedule agreed in the SALE DEED.
5. The Author/Publisher shall be liable for any applicable taxes for the sale of copyright of the Material as per the existing financial rules and regulations of the Royal Government of Bhutan.

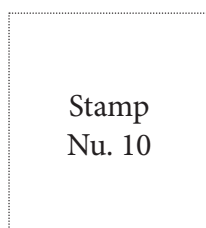
Author : _____

(Last Name, First Name, Official Position, Passport Information)

Correspondence Address : _____

Phone : _____

Email : _____



(Signature)

(Date)

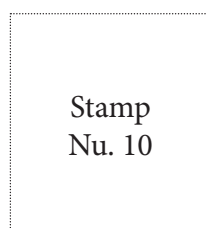
Co-Authors / Publishers : _____

(Last Name, First Name, Official Position, Passport Information)

Correspondence Address : _____

Phone : _____

Email : _____



(Signature)

(Date)

Co-Authors / Publishers : _____

(Last Name, First Name, Official Position, Passport Information)

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Email : _____



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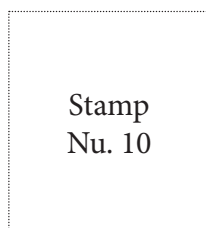
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Email : _____



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(Date)

Witness : _____

(Last Name, First Name, Official Position, Passport Information)

Correspondence Address : _____

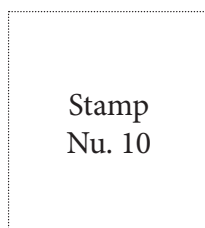
Phone : _____

Email : _____



(Signature)

(Date)



(Signature)

(Official Seal)

(Date)

Head of Agency
Royal Education Council
Bhutan

SALE DEED

_____, _____ 20_____

"I agree to sell the copyright of _____ (title),
_____ (ISBN) for the price of Nu _____.
and shall abide by all the clauses included in the COPYRIGHT SALE AGREEMENT.

The payment for the sale of copyright will be paid in:

1. a single lump sum amount of Nu. _____.
2. instalment of _____% of total price annually which is Nu _____ per annum.

The price for the copyright of the Materails shall be paid to:

(Name of Author / Publisher)

Citizenship ID No. _____

Present Address _____

Contact Number _____

Email Address _____

Bank Details _____



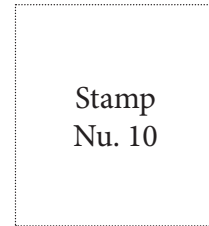
(Name of Author / Publisher)

(Signature)

(Name of the Head of Agency)

Royal Education Council

(Signature)



(Name of Witness for Author / Publisher)

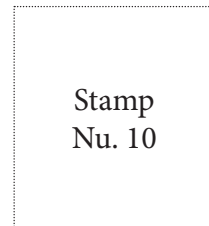
(Signature)

Citizenship ID No. _____

Present Address _____

Contact Number _____

Email Address _____



(Name of Witness for Royal Education Council)

(Signature)

Citizenship ID No. _____

Present Address _____

Contact Number _____

Email Address _____

**ROYAL EDUCATION COUNCIL
BHUTAN**

CUSTOMISATION OF ICT TEXTBOOKS (CLASS X & XII)

Textbook Submission Form

(This form is to be filled for only one textbook)

Date	Title(s) of Text	Subject	Grade Level	Edition	Publisher	Author(s)	ISBN Number	Submitted by

Documents submitted:

- Attested copy of valid Publisher License.
- A copy of contract agreement between Author and Publisher.
- Two specimen textbooks.
- Original Price Agreement Form.