



# DBSE ASSESSMENT FRAMEWORK DRAFT

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## ABBREVIATIONS AND ACRONYMS

ASoSE	Ambedkar School of Specialised Education
DBSE	Delhi Board of School Education
EA	External Assessment
IA	Internal Assessment
IB	International Baccalaureate
IGCSE	International General Certificate of Secondary Education
KP	Knowledge Partners
MYP	Middle Years Programme

## Chapter 1. Introduction to DBSE assessments

An education system works best when curriculum, teaching, learning and assessment are closely aligned. This assessment framework describes DBSE's approach to assessment and demonstrates its commitment to transparency, fairness and student/teacher wellbeing. Assessment is a continuous process of gathering evidence of student attainment of knowledge, understanding, skills and competencies. The primary aim of assessment and evaluation is to improve, enhance, and inform the teaching-learning process. Assessments at the Delhi Board of School Education (DBSE) are:

- integrated into teaching and learning – assessments are integrated into classroom learning to provide constant feedback and support;
- aimed to reduce teacher fatigue – assessments do not add to teacher workload and are technology-driven;
- operation-able and scalable – the assessment model can work on a large scale;
- competency-based – an ongoing process in which knowledge and skills are continually progressing;
- authentic – assessments are based on real-life contexts;
- student-centric – involves the active engagement of students; and
- reported on grades – student achievements are described.

Further, assessments at DBSE are holistic and criterion-based and draw upon best practices from around the globe.

DBSE will adopt a multifaceted assessment structure so that students are assessed in multiple ways and at multiple times while considering the workload of teachers and students. This structure will incorporate formative assessments used for providing feedback, summative or internal assessments at the end of curricular units and term-end assessments to ensure that students have multiple opportunities to showcase their learning. The structure and calendar of assessments will be communicated with schools, students and other stakeholders sufficiently early to ensure transparency and to reduce stress.

DBSE's vision is to make students future-ready in a scenario where rapidly changing global contexts make this a very difficult task. Therefore, it is critical that students completing school education under DBSE are equipped with 21<sup>st</sup> century skills and competencies.

An in-depth analysis of how other educational systems address this issue suggests some possible approaches. While there are major differences in the competencies that are taught across the world as 21<sup>st</sup> century skills, there are also some similarities. After reviewing various approaches, DBSE will adopt the competencies<sup>1</sup> below:

- Critical thinking and problem solving
- Creative thinking
- Collaboration, communication and social & citizenship competence
- Language and digital literacy
- Numeracy

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<sup>1</sup> See chapter 3 of this document for DBSE's vision of what these competencies comprise.

The approach taken at DBSE is that these competencies are incorporated into the teaching of the curricular competencies and therefore, get assessed in the domain specific assessments.

At DBSE, assessments are integrated into the teaching learning process and their purpose is to improve learning. Therefore, DBSE's approach to assessment and reporting is focussed on communicating assessment processes and descriptions of student achievement. The descriptions reflect students' knowledge, understanding and skills.

To support the process of helping students progressing in their learning, student achievement at DBSE will be **reported using grades** because DBSE believes that marks are not the true representation of students' ability, as they only show how much of the task a student has completed. Marks themselves do not provide any meaning to students' work. On the contrary, a grade description takes task difficulty into account and indicates student ability. A well-defined description of the grade achieved by a student can provide a reliable indicator of the student's ability. In a criterion-based system, the quality of the student's work is determined on pre-defined standards which consider the difficulty of the task as well as the proportion of the task completed. The grades assigned based on this approach, therefore, provide a substantive meaningful description of the student's work and ability.

These descriptions also help in providing effective feedback to students and teachers to improve learning. Assessments at DBSE are also designed to support improvement in the learning processes by providing feedback at the systemic level.

The purpose of this document is to succinctly describe the DBSE assessment policy, structure, calendar, methods of assessment and reporting system.

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## Chapter 2. Fundamental principles underlying DBSE assessment policies

The word assessment is derived from the Latin verb 'assidere' meaning 'to sit with', implying that it is something done with and for students, and not to students. DBSE primarily considers assessment integral to learning rather than a separate process aimed at judging and categorising students. There is emphasis on classroom assessments that are integrated with pedagogy and based on competencies that students may require in the future and are intrinsically meaningful. In general, assessments at DBSE are intended to evaluate processes as well as products of student learning.

### 2.1. Types of assessment

There are three types of assessments conducted at DBSE schools throughout a learning period.

**Assessment for learning:** It is the process of gathering and interpreting evidence for use by students and teachers to know where the students are on their learning pathway, decide where they need to go and how best to get there. The teacher plays a supportive role wherein the student responses in the assessment tasks are analysed to help students progress on their learning pathway. Consequently, it is important that these assessments must always be accompanied by feedback and feed-forward mechanisms to enable deep learning and help improve teaching. Example tasks include homework, classwork, class tests, assignments, projects, etc. The assessments should provide the right amount of challenge to students based on learning levels so that appropriate feedback can be provided.

**Assessment of learning:** It takes place at key points in the learning cycle, such as at the end of a learning period, e.g. a term, to measure if students have achieved the learning objectives. Example tasks include exams, final projects, essays, etc. The primary purpose is to assess what students can do at a point in time to understand their readiness to move to the next stage of education.

**Assessment as learning:** Students are provided with opportunities to monitor their own progress, self-assess and reflect on their learning. Example tasks include self-assessment, peer assessment, student portfolio, etc.

### 2.2. Approach to assessment

Like other national assessment systems, DBSE uses a variety of assessment approaches and tasks. However, irrespective of the form of assessment, it also recognises the relationship between assessments and teaching. Since assessments have a decisive influence on classroom instruction, it is important that assessments be aligned with the larger educational purposes. The connection between learning outcomes on which assessments are based and the larger educational objectives must be well-established. To ensure this, an in-depth study of assessment policies across the globe was undertaken and pertinent principles adopted to guide DBSE assessment policies. These can be summarised as –

- assessments are holistic, i.e., they focus not just on curricular competencies but also on competencies required for better life outcomes
- assessments are student-centric;
- student assessment information is used as an important tool to ensure accountability in education;
- student assessment information is made publicly available to ensure transparency;
- increasing the quantity and/or quality of information on student achievements is an ongoing priority;
- teacher training in assessment techniques and methods is a priority;



- assessments are an integral part of the teaching learning process and do not unduly increase student and teacher fatigue; and
- assessments adhere to the assessment principles described in National Education Policy 2020.

The following aspects are taken into consideration by DBSE to maintain technical robustness of assessments.

- **Validity** is an important aspect related to the main purpose of assessments. Validity refers to whether an assessment measures what it is intended to measure. The assessment items must be aligned with the objectives of the curriculum and assess the skills that are intended to be tested.
- **Reliability** – A reliable assessment ensures that repeated or equivalent assessments will produce consistent results. For instance, reliability checks whether a student gets the same score on an assessment, even if different examiners were to score the work.
- **Authenticity** – Authenticity ensures that the tasks in an assessment match real-life situation where students are likely to apply the skills they are being tested on. Tasks that are disconnected from real-life contexts, or seem too simplistic or artificial, are considered to be inauthentic.
- **Manageability** – Manageability refers to the effort involved in responding to the assessment. From the perspective of students, this may include various aspects such as the duration of the assessment (given the age), the time at which the assessment takes place, etc.
- **Fairness and bias** – Bias refers to the unintended advantage or disadvantage faced by students in assessment tasks. It can result in inaccuracy in the measurement of student achievement. Bias in assessment tasks may arise due to the cultural context of the question, type of question, language conventions used, etc.
- **Comparability** – Comparability ensures that there is consistency from one assessment cycle to the next. It seeks to ensure that the amount of work to achieve a specific grade in a subject remains comparable between years. Any change in the program in future cycles can be recorded, evaluated and accounted for.

It may not always be possible to attain the highest standard in all these aspects in an assessment and a balance is sought between them in order to maintain the robustness of the assessment. In doing so, the main purpose of the assessment is considered to decide the relative importance of each aspect.

The following principles will underlie all assessments at DBSE, keeping in mind the need to ensure robustness of assessments:

- Be fair, transparent, and equitable;
- Support all students including those with special education needs;
- Be aligned to curriculum expectations, learning goals and learning outcomes;
- Address the interests, learning styles, preferences, needs, and experiences of all students to the extent possible;
- Be continuous and ongoing, diverse in nature, and conducted/administered over a period;
- Provide multiple opportunities for students to exhibit their full range of learning;
- Provide ongoing descriptive feedback, which is
  - i) clear,
  - ii) specific,
  - iii) meaningful, and

- iv) timely to support improved learning and achievement.
- Develop students' self-assessment skills to enable them to
  - i) assess their own learning,
  - ii) set specific goals, and
  - iii) plan next steps for their learning.

### 2.3. Reporting student achievement

DBSE uses a grade point system to report student achievement. While marks indicate the extent to which students perform correctly in an assessment, grades provide detailed information about student skills and capabilities by assessing performance against pre-defined standards. Grades take into consideration the difficulty of the task as well as the proportion of the task that was completed. Each grade is representative of a set of skills and competencies that students at that level are able to demonstrate. The grades used by DBSE are based on pre-defined assessment criteria which represent the use of knowledge, understanding, and skills taught in the subject. The learning objectives in each subject are aligned with the assessment criteria. Also known as 'criterion-referenced' assessment, a grade-based assessment system is more useful in comparing student performance across assessments.

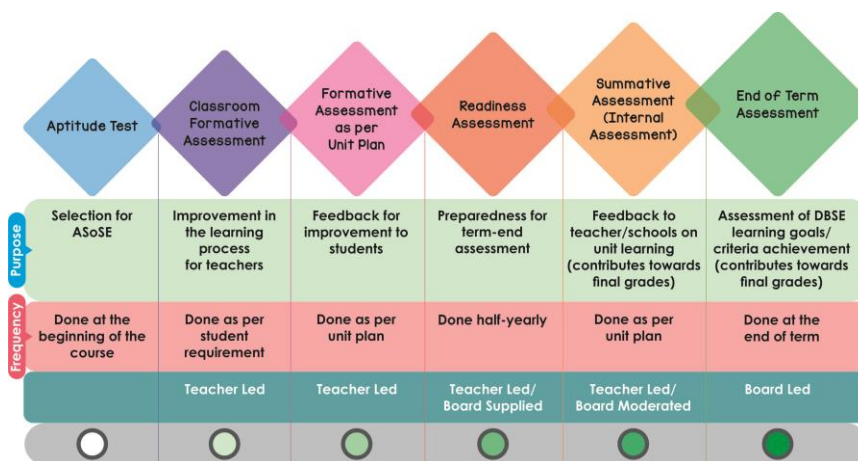
DBSE uses the assessment criteria to report a student's level of achievement in the respective subject area. This type of reporting enables students to:

- understand what they know and can do rather than being ranked against the other students;
- receive feedback based on performance level descriptors; and
- know beforehand what they need to do to achieve their learning goals.

## Chapter 3. Structure of DBSE assessments

Global best practices suggest a multifaceted assessment structure. That is, students should be assessed in multiple ways and at multiple times without increasing the workload of teachers or students, to the extent possible. A schematic representation of the DBSE assessment structure is presented below:

Figure 1: Assessments in DBSE



### 1. Placement/Aptitude test

Students gain entry into DBSE secondary schools termed as Ambedkar School of Specialised Education (ASoSEs) through a placement/aptitude test.

### 2. Classroom formative assessment

Classroom formative assessments are an integral part of the learning process at ASoSEs. These are conducted as per teacher/student requirements. These assessments are developed and administered by teachers. Classroom formative assessments do not count towards the final grade point.

### 3. Formal unit-plan based formative assessment

Formal unit-plan based formative assessments are done to provide structured feedback to students. These assessments are embedded in the unit plans and are developed by a group of expert teachers. Student performance in these assessments is not used for reporting. However, DBSE may monitor the usage of these assessments by teachers at administrative level and ensure that students get feedback for further action. Formal unit-plan based formative assessments do not count towards the final grade point; however, schools may be asked to maintain the records of these assessments.

### 4. Readiness assessment

Readiness assessments are done to provide exposure to term-end assessments. They provide an opportunity for the school/teacher/student to take corrective measures before the term-end assessment. Readiness assessments do not count towards the final grade point.

### 5. Summative assessment (internal assessment/unit end assessments)

Internal summative assessments are done at the end of each unit. It is recommended that the assessments be conducted using various modes of administration and not limited to the traditional pen-and-paper assessments. Internal assessments will count towards the final grade points.

### 6. Summative assessment (external assessment/term-end assessment)

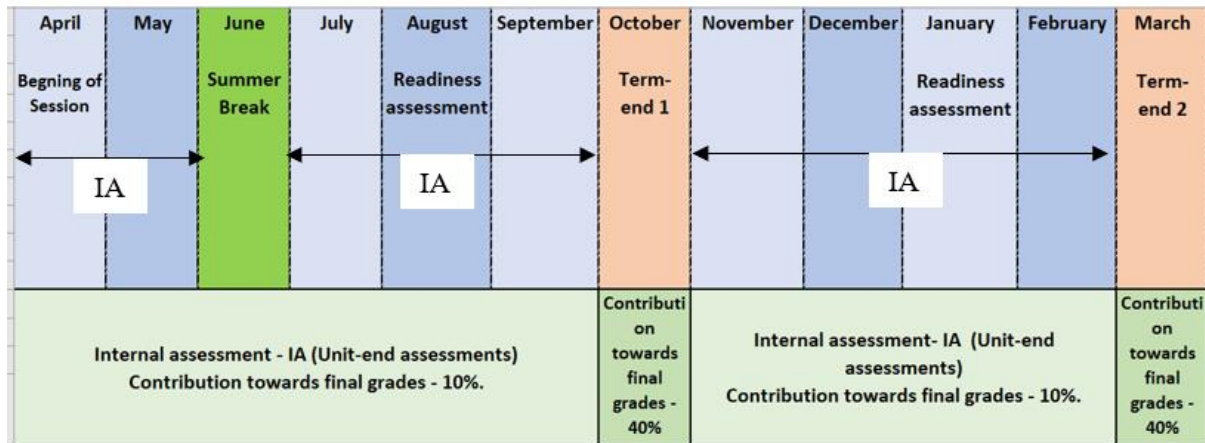
External summative assessments are done at the end of each academic term. External assessments will count towards the final grade points.

### 3.1. Assessment calendar

An academic year at DBSE consists of two terms. The placement/aptitude test is done at the beginning of grade 9/grade 11. Classroom formative assessments and unit plan formative assessments can be done as per student/teacher requirements. However, summative assessments are to be conducted as per DBSE guidelines

The figure below shows the frequency and suggested timeline for readiness assessments, internal summative assessments (IA) and external term-end assessments during an academic year along with the weightage provided to each in reporting student achievement.

Figure 2: Internal and External assessment calendar for grades 9 to 12



Unit-wise details of the internal assessment are provided in the annexure.

### 3.2. Assessment models for grades 9-12

DBSE assessments used for reporting at higher grades are mainly school-led or board-led. School-led assessments like the term-end assessments, are based on an item pool provided by DBSE. Board-led assessments are developed and administered by DBSE. At lower grades, the assessments can even be teacher-led wherein the assessments are developed, administered and reported by the teacher.

At DBSE, a group of academic subjects namely, Hindi, English, Science, Mathematics, Design and Physical Education are termed as foundational subjects for grades 9 to 12.

For the foundational subjects, DBSE follows the assessment model provided below.

Table 1: Proposed model for DBSE foundational subjects 9 to 12 grades

		Pilot Phase			Final Phase		
Grade	Assessment	Type	Nature	Weightage	Type	Nature	Weightage
9	Term I	Board-led	Competency-based	40	School-led	Competency-based (Item Pool Model)	40
	Term II	Board-led	Competency-based	40	School-led	Competency-based (Item Pool Model)	40
	Internal	Board Moderated	Competency-based	20	Board Moderated	Competency-based (Item Pool Model)	20
10	Term I	Board-led	Competency-based	40	Board-led	Competency-based	40
	Term II	Board-led	Competency-based	40	Board-led	Competency-based	40
	Internal	Board Moderated	Competency-based	20	Board Moderated	Competency-based	20
11	Term I	Board-led	Competency-based	40	School-led	Competency-based (Item Pool Model)	40
	Term II	Board-led	Competency-based	40	School-led	Competency-based (Item Pool Model)	40
	Internal	Board Moderated	Competency-based	20	Board Moderated	Competency-based	20
12	Term I	Board-led	Competency-based	40	Board-led	Competency-based	40
	Term II	Board-led	Competency-based	40	Board-led	Competency-based (Item Pool Model)	40
	Internal	Board Moderated	Competency-based	20	Board Moderated	MYP Project Style	20

**Board-led**

Developed and administered by the DBSE

**Board Moderated**

Developed at school level with DBSE provided guidelines and monitored by DBSE

**School-led**

Developed at school level from an item pool provided by DBSE

In addition to the foundational subjects, ASoSEs require students to study specialised career-oriented courses. The curriculum and assessments in these subjects are developed by knowledge partners (KP). Details of knowledge partners and courses run by them are provided in the annexure. For the specialised subjects, DBSE follows the assessment model presented below.

Table 2: Proposed Model for DBSE specialised subjects 9 to 12 grades

		Pilot Phase			Final Phase		
Grade	Assessment	Type	Nature	Weightage	Type	Nature	Weightage
9	Term I	Board-led	KP Recommended	40	School-led	KP Recommended	40
	Term II	Board-led	KP Recommended	40	School-led	KP Recommended	40
	Internal	Board Moderated	KP Recommended	20	Board Moderated	KP Recommended	20
10	Term I	Board-led	KP Recommended	40	Board-led	KP Recommended	40
	Term II	Board-led	KP Recommended	40	Board-led	KP Recommended	40
	Internal	Board Moderated	KP Recommended	20	Board Moderated	KP Recommended	20
11	Term I	Board-led	KP Recommended	40	School-led	KP Recommended	40
	Term II	Board-led	KP Recommended	40	School-led	KP Recommended	40
	Internal	Board Moderated	KP Recommended	20	Board Moderated	KP Recommended	20
12	Term I	Board-led	KP Recommended	40	Board-led	KP Recommended	40
	Term II	Board-led	KP Recommended	40	Board-led	KP Recommended	40
	Internal	Board Moderated	KP Recommended	20	Board Moderated	KP Recommended	20

## Chapter 4. Competency framework for DBSE

The most challenging aspect of education at DBSE is anticipating the future and making students ready for that future. This is even more necessary because of the pace of social and technological changes; and the rapidly changing world-order, economic scenarios, climate landscapes, and global ecosystem. It is critical that students completing school education under DBSE are equipped with 21<sup>st</sup> century skills and competencies. Pedagogy and assessment under DBSE are focused on nurturing skills and competencies required for the future, such as critical and creative thinking, collaboration, communication, ICT, literacy and numeracy. These competencies are generally assessed implicitly as part of academic subjects, where applicable.

The names used for these advanced skills and competencies vary across the curricula of countries. While in Estonia, they are called general competences, Finland calls them transversal skills, in Canada they are called global competencies, and in Singapore they are known as 21st century competencies. Despite the variation in terminology, they cover certain broad competencies which include:

- cultural and value competence,
- social and citizenship competence,
- self-management competence,
- communication competence,
- natural sciences and technology competence,
- entrepreneurship competence,
- digital competence,
- well-being competence,
- multidisciplinary and creative competence,
- societal competence,
- ethical and environmental competence,
- global and cultural competence,
- aesthetic-emotional competence,
- creative thinking skills,
- knowledge-information processing skills,
- critical thinking and problem solving skills,
- global awareness and cross-cultural skills.

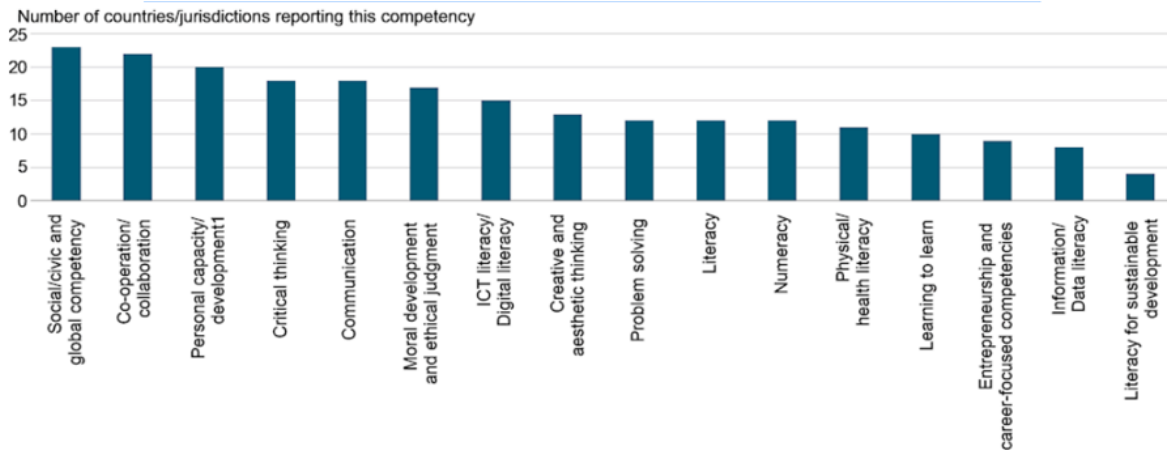
Most national curricula highlight the importance of critical thinking skills and problem solving skills. Many of the other competencies may be implicitly or explicitly defined in a curriculum, however assessment of and reporting the extent to which students have attained these skills remain a challenge. This is partially due to the inherent complexity of these competencies and the absence of psychometric definitions for most of the competencies mentioned above<sup>2</sup>.

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<sup>2</sup> OECD (2009). 21st Century Skills and Competences for New Millennium Learners in OECD Countries Working Paper English

The figure below shows the number of countries/jurisdictions adopting particular competencies.

Figure 3: Cross-curricular competencies reported by countries/jurisdictions



Source:

<https://www.oecd-ilibrary.org/sites/c4cff4cd-en/index.html?itemId=/content/component/c4cff4cd-en>

After an in-depth review and analysis of the competencies adopted by various education systems, DBSE has adopted the following competencies:

- Critical thinking and problem solving
- Creative thinking
- Collaboration, communication and social & citizenship competence
- Language literacy
- Numeracy

These competencies have been selected as they are the skills essential for success in the 21st century in a global context. This is indicated by the widespread adoption of these competencies by various countries as shown below.



Table 3: Adoption of proposed DBSE competencies across high performing countries in PISA

Proposed DBSE Competency	Estonia	Finland	Singapore	Canada <sup>3</sup>	Australia <sup>4</sup>	Korea
Collaboration		✓	✓	✓	✓	
Communication	✓	✓	✓	✓	✓	✓
Creativity/ Creative thinking	✓		✓	✓	✓	✓
Critical thinking	✓		✓	✓	✓	✓
Problem solving	✓			✓	✓	✓
Literacy	✓	✓		✓	✓	
ICT /digital competence	✓	✓	✓	✓	✓	✓
Numeracy	✓	✓		✓	✓	
Social and citizenship competence / Societal competence/Civic literacy	✓	✓	✓	✓	✓	✓

How to read the table:

- The tick mark indicates that the competency is mentioned in the curriculum framework either explicitly or included under a different name. However, descriptions of the competency match the proposed DBSE competency. For example, in the Finnish curriculum, collaboration and communication are combined under 'interaction competence'.
- The blank cells indicate that the competency is not explicitly mentioned in the framework. However, the competency may be implicitly present.

<sup>3</sup> In the pan-Canadian curriculum, critical thinking and problem solving are merged under one category.

<sup>4</sup> In the Australian curriculum, critical and creative thinking is under one competency.

## 4.1. Critical thinking and problem solving

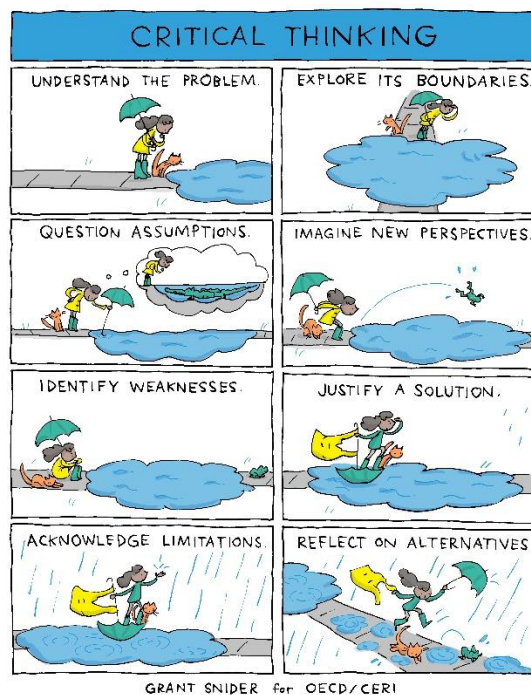
Critical thinking is a higher order cognitive skill and includes inductive and deductive reasoning and making correct analyses, inferences, and evaluations.<sup>5</sup>

DBSE lays emphasis on the following components of critical thinking<sup>6</sup>:

- Interpretation
- Analysis
- Inference
- Evaluation
- Explanation
- Self-regulation

A comic representation of the components of critical thinking is given in figure 4.

Figure 4: Comic representation of components of critical thinking



Source: <https://www.oecd.org/education/ceri/fostering-assessing-students-creative-and-critical-thinking-skills-in-higher-education.htm>

Critical thinking is explicitly assessed in some of the DBSE subjects like in humanities, in other subjects it is assessed as one of the major components of problem solving.

<sup>5</sup> OECD (2020). TECHNICAL REPORT: CURRICULUM ANALYSIS OF THE OECD FUTURE OF EDUCATION AND SKILLS 2030 © OECD 2020. [https://www.oecd.org/education/2030-project/contact/Technical%20Report\\_Curriculum\\_Analysis\\_of\\_the\\_OECD\\_Future\\_of\\_Education\\_and\\_Skills\\_2030.pdf](https://www.oecd.org/education/2030-project/contact/Technical%20Report_Curriculum_Analysis_of_the_OECD_Future_of_Education_and_Skills_2030.pdf)

<sup>6</sup> 2015 Update on the Critical Thinking Mindset from Delphi Report Principle Investigator, Dr. Peter Facione

Problem solving is the act of finding ways of dealing with problems.<sup>7</sup>

Problem solving competency is an individual's capacity to engage in cognitive processing to understand and resolve problem situations where a method of solution is not immediately obvious. It includes the willingness to engage with such situations in order to achieve one's potential as a constructive and reflective citizen (OECD, 2012).

Problem solving is essentially a process for finding solutions to problems in which the method to arrive at a solution or the solution is not immediately obvious.

The components of problem solving can be:

- Defining the problem
- Searching for the process/method
- Evaluating the selected process/method
- Applying the selected process/method
- Analysing
- Interpreting

Problem solving competence is most explicitly assessed in DBSE subjects like mathematics while other subjects assess it implicitly.

## 4.2. Creative thinking

Creativity is a competency which adds value to the existing society by providing new solutions, products and services, new jobs, new processes and methods, new ways of thinking and living, new enterprises, new sectors, new business models and new social models.<sup>8</sup> A creative person approaches problems or situations with an unbiased perspective, they don't reject ideas at the initial stage, they are experimenters and are able to produce unorthodox solutions. Creative thinking, on the other hand, is concerned with ideas and the quality of those ideas, whereas, creativity is focused on the realisation of ideas into products and outcomes of value. In educational settings, where students are in the process of acquiring deep knowledge, the focus will be on creative thinking rather than creativity.

The components of creative thinking can be:

- Generation of ideas
- Evaluation of quality of ideas
- Experimentation
- Innovation

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<sup>7</sup> [https://www.oxfordlearnersdictionaries.com/definition/american\\_english/problem\\_solving](https://www.oxfordlearnersdictionaries.com/definition/american_english/problem_solving)

<sup>8</sup> The future of education and skills Education 2030.  
[https://www.oecd.org/education/2030/E2030%20Position%20Paper%20\(05.04.2018\).pdf](https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf)

A comic representation of the components of critical thinking is given in the figure 5.

Figure 5:Comic representation of components of creativity



Source: <https://www.oecd.org/education/ceri/fostering-assessing-students-creative-and-critical-thinking-skills-in-higher-education.htm>

Creativity is assessed explicitly in specialised subjects like High End 21st century skills and implicitly, in subjects like languages.

#### 4.3. Collaboration, communication and social & citizenship competence

Collaboration is the act of two or more people pooling knowledge, resources and expertise from different sources in order to reach a shared goal or target.<sup>9</sup> Essential pre-requisites for successful collaboration are equivalence of knowledge, status and goals among collaborators.<sup>10</sup>

Collaborative ability of a student is his/her capacity to contribute effectively in a group. This involves:

- Perseverance
- Contributing to team knowledge
- Valuing the contributions of others
- Resolving differences

<sup>9</sup> OECD (2020). TECHNICAL REPORT: CURRICULUM ANALYSIS OF THE OECD FUTURE OF EDUCATION AND SKILLS 2030 © OECD 2020

<sup>10</sup> Dillenbourg, P. (1999). What do you mean by 'collaborative learning'? In P. Dillenbourg (Ed.) Collaborative-learning: Cognitive and computational approaches (pp. 1-19). Oxford, UK: Elsevier.

Communication is an extremely important competency in a globally connected world. It involves:

- receiving and expressing meaning (e.g., reading and writing, viewing and creating, listening and speaking) in different contexts and with different audiences and purposes;
- adapting and changing using a variety of media appropriately, responsibly, safely, and with regard to one's digital footprint;
- being able to clearly, relevantly and politely express oneself; and
- presenting and justifying one's positions.

### **Social & citizenship competence –**

Social and citizenship competence includes individual behaviour, behaviour with other individuals and it involves all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life and to resolve conflict where necessary<sup>11</sup>.

The main aspects of social & citizenship competence in students are reflected through:

- appreciation of diverse perspectives
- contribution to civil society
- understanding relationships
- communicating effectively
- negotiating and resolving conflict
- knowing and following values and moral standards in society

All three competencies (collaboration, communication and social & citizenship) are implicitly assessed across all the subjects, particularly through teacher observation of behaviour in the classroom. Further, some aspects of the components may be assessed more formally, such as the civics component of the social & citizenship competence in social science.

## **4.4. Language literacy**

Language literacy is defined as the ability to evaluate, use and engage with written, spoken, visual and multi-modal texts. Literate students are able to decode and construct different types of texts in and out of school. As student abilities in literacy increase, students are not only able to access more complex texts, they are able to use an increasingly wide array of strategies with more and more control.

The strategies could be top-down (using background knowledge and context clues to figure out the meaning) or bottom-up strategies (discriminating between sounds and letters or recognizing characters, recognizing word-order patterns, analysing sentence structure, examining parts of words to try to decipher meaning). Critical literacy strategies include the means to access and analyse information, use technology, evaluate messages from a wide variety of media, apply creativity to express and analyse messages, and use critical thinking.<sup>12</sup>

The components of 21<sup>st</sup> century literacy are:

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<sup>11</sup> European commission. (n.d.). About social and civic competencies. Retrieved from <http://keyconet.eun.org/social-and-civic>

<sup>12</sup> *Literacy in Language Learning*. (n.d.). <https://www.actfl.org/resources/guiding-principles-language-learning/literacy-language-learning>. Retrieved June 21, 2022, from <https://www.actfl.org/resources/guiding-principles-language-learning/literacy-language-learning>

- Manage, analyse, and synthesise multiple streams of information
- Design and share information for global communities
- Develop proficiency and fluency with the tools of technology
- Create, critique, analyse, and evaluate multimedia texts
- Attend to the ethical responsibilities required by complex environments

Literacy is inherently assessed in subjects by the students' ability to access, manage, analyse and synthesise information across multiple streams and modes of accessing them.

#### 4.5. Numeracy

Numeracy is the ability to cope with tasks that students are likely to encounter in real life that require knowledge of mathematical or statistical procedures to make decisions. It is the ability to access, interpret, use and communicate mathematical information and ideas in real situations. Numerate students are able to apply mathematical understanding and skills appropriate for life in and out of school. This includes applying the knowledge and skills acquired in mathematics when engaging with subject-specific content in other subject areas, where appropriate.

In a broader sense numeracy relates to using mathematical skills broadly and in real life situations that involve quantitative and spatial information such as numbers, statistics, measurements and directions through

- interpreting,
- analysing and
- communicating information

Numeracy in real-life situation could involve understanding the mathematical ideas in visual or multimodal texts which may present a range of numeracy demands such as using visual organisers like Venn diagrams, flow charts as alternates to written texts to communicate effectively and visually.

Numeracy involves estimating and working with whole numbers, and using proportional reasoning, working with patterns and relationships, visualising 2D shapes and 3D objects including interpreting maps and diagrams, interpreting and using visual displays of information and interpreting chance events and using measures of quantity and time.

Numeracy is inherently a part of mathematics and is therefore, assessed formally in mathematics and allied subjects like economics, commerce, etc.

## Chapter 5. Assessment criteria for subject domains

In ASoSE schools (grades 9 to 12), DBSE has adopted the grade point system based on assessment criteria. The learning objectives in each subject are assessed based on one of the four assessment criteria. The criteria represent the use of knowledge, understanding, and skills taught in the subject.

In the academic year 2022-2023, assessment of grade 10 foundational subjects will be based on IB assessment criteria. However, in grades 11 and 12, DBSE assessment criteria have been adopted. The specialised subjects follow DBSE criteria from grades 9 to 12.

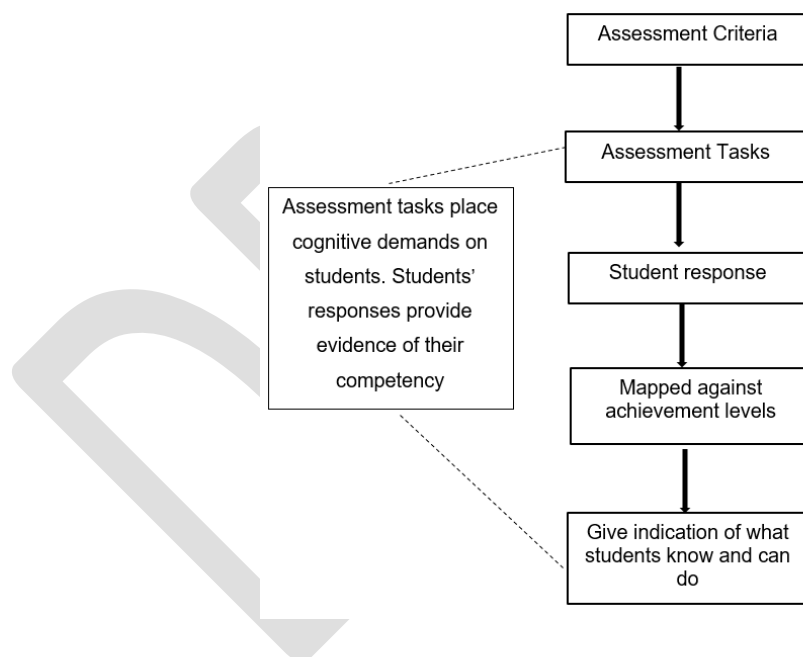
### 5.1. Assessment criteria

An assessment criterion is a description of achievement on pre-defined parameters in a course of study. It describes the academic achievements with precision on a continuum. The description could include the parameters of quality of performance with measurable achievement levels.

The assessment criteria also ensure that the criterion-based assessment system is robust, and the tasks and students' responses are evaluated based on pre-defined criteria. These criteria set the parameters for the assessment tasks and their evaluation.

The content of the assessment tasks should be based on the learning outcomes of the course, and the tasks should be sufficiently challenging. The relation between the assessment tasks and criteria is shown in the figure 7 below.

Figure 6: Relation between assessment tasks and criterion



Four criteria proposed for DBSE academic subjects are:

**Criteria A – Knowing and Understanding**

Students would be assessed on –

- facts, concepts and terminology
- methodologies and techniques

**Criteria B – Application**

Students would be assessed on the application of –

- facts and concepts
- methodologies and techniques.

**Criteria C – Higher Order Thinking Skills**

Students would be assessed on –

- logical ability
- analytical ability
- synthesizing and evaluating

**Criteria D – Observation and investigation**

Students would be assessed on –

- experimental skills
- investigative skills
- problem solving skills

DBSE understands that the criteria above are generic. However, each subject can adapt these generic assessment criteria to develop subject-specific criteria.



## 5.2. Levels within the criteria

Greater precision on reporting student achievement can be achieved when the criterion has well defined levels of attainment along with the description of the criterion. Further, when a criterion is broken down into fine-grained description of various levels, more precise feedback can be provided to students on the way forward.

These levels of attainment help to report student performance and develop assessment tasks that target specific levels within a criterion. Each subject will have its own description of criteria and levels. DBSE understands that for some courses there may be additional criteria used for assessment and reporting student achievement. For example, a course can have the additional criterion of ethical issues.

The examples of levels for the generic assessment criteria are illustrated in the tables below.

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Table 4: Example of achievement levels in Knowing and Understanding

Knowing and Understanding		
Level 1	EMERGING	<p>Student demonstrates</p> <ul style="list-style-type: none"> <li>• factual and/or conceptual knowledge with an emphasis on the specialised field of study with appropriate terminology</li> <li>• awareness of ethical issues in specialised area(s) of study and discusses them in relation to personal beliefs and values</li> </ul>
Level 2	DEVELOPING	<p>Student demonstrates</p> <ul style="list-style-type: none"> <li>• detailed knowledge of major theories of the specialised field(s) and an awareness of a variety of ideas, contexts, and frameworks</li> <li>• awareness of the wider social and environmental implications of specialised area(s) of study and can debate issues in relation to more general ethical perspectives</li> </ul>
Level 3	PROFICIENT	<p>Student demonstrates</p> <ul style="list-style-type: none"> <li>• comprehensive/detailed knowledge of areas of specialisation with depth and an awareness of the nature of the specialised subject</li> <li>• awareness of personal responsibility and professional codes of conduct and can incorporate a critical ethical dimension into a major piece of work</li> </ul>
Level 4	EXEMPLARY	<p>Student demonstrates</p> <ul style="list-style-type: none"> <li>• in-depth and systematic understanding of knowledge of the specialised subject and can work with theoretical / research-based knowledge and has a comprehensive understanding of techniques/methodologies in the specialised subject</li> <li>• awareness and ability to manage the implications of ethical dilemmas and work proactively with others to formulate solutions</li> </ul>

Table 5: Example of achievement levels in Application

Application		
Level 1	EMERGING	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>• apply facts, concepts and techniques with support</li> <li>• replicate solutions for familiar, clearly defined situations</li> </ul>
Level 2	DEVELOPING	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>• apply facts, concepts and techniques with limited support</li> <li>• identify and select appropriate existing solutions for familiar, clearly defined situations</li> </ul>
Level 3	PROFICIENT	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>• apply facts, concepts and techniques with very limited support</li> <li>• develop appropriate solutions for unfamiliar situations that are ill-defined</li> </ul>
Level 4	EXEMPLARY	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>• apply facts, concepts and techniques independently</li> <li>• autonomously/independently identify and define situations and develop solutions</li> </ul>

Table 6: Example of achievement levels in Higher Order Thinking Skills

Higher Order Thinking Skills (Analysis and Evaluation)		
Level 1	EMERGING	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>analyse given information with guidance using given parameters</li> <li>collect and categorise simple ideas and information in a predictable and standard format</li> <li>evaluate the reliability and relevance of information with guidance</li> </ul>
Level 2	DEVELOPING	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>analyse a range of information with minimum guidance using given parameters and can compare alternative methods and techniques for obtaining information</li> <li>collect and categorise complex ideas and information appropriately developing the required formats</li> <li>evaluate the reliability and relevance of information using limited guidance</li> </ul>
Level 3	PROFICIENT	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>analyse new and/or abstract information and situations without guidance, using a range of techniques appropriate to the subject</li> <li>collect and categorise complex ideas and information aligning with a purpose</li> <li>evaluate the reliability and relevance of information using very limited guidance and can identify contradictory information</li> </ul>
Level 4	EXEMPLARY	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>critically analyse complex, incomplete or contradictory information and communicate the outcome effectively</li> <li>transform and present abstract ideas and information in a format appropriate for the audience and purpose</li> <li>evaluate the reliability and relevance of information independently and can investigate and resolve contradictory information</li> </ul>

Table 7: Example of achievement levels in Observation and Investigation

Observation and Investigation		
Level 1	EMERGING	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>operate in predictable, defined contexts that require the use of a specified range of standard techniques</li> <li>act with limited autonomy, under direction or supervision, within defined guidelines</li> <li>work with limited expertise, performing with limited effectiveness, using limited skills</li> </ul>
Level 2	DEVELOPING	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>operate in situations of varying complexity and predictability requiring the application of a wide range of techniques</li> <li>to act with increasing autonomy, with reduced need for supervision and direction, within defined guidelines</li> <li>work with adequate expertise, performs with increasing effectiveness, displaying adequate skills</li> </ul>
Level 3	PROFICIENT	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>operate in complex and unpredictable contexts, that may require selection and application from a wide range of innovative techniques</li> <li>act autonomously, with minimal supervision or direction, within agreed guidelines</li> <li>work competently, performs with effectiveness and appropriate skills</li> </ul>
Level 4	EXEMPLARY	<p>Student demonstrates the ability to</p> <ul style="list-style-type: none"> <li>operate in complex and unpredictable, specialised contexts, and understand wider implications</li> <li>exercise initiative and act with personal responsibility</li> <li>work with technical expertise, perform smoothly with precision and effectiveness; can adapt skills and design or develop new skills or procedures for new situations</li> </ul>

## Chapter 6. Internal and external assessments and their evaluation

There are two types of assessments used for reporting student performance.

- Internal assessments (IA)
- Term-end assessments (EA)

Overall weightage of internal and external assessments is shown in the table below.

Table 8: Weightage distribution of IA and EA in grades 9 to 12

Weightage of internal and external assessment		
Assessment	Internal	Term-end
Weightage	20%	80%

### 6.1. Development of assessment

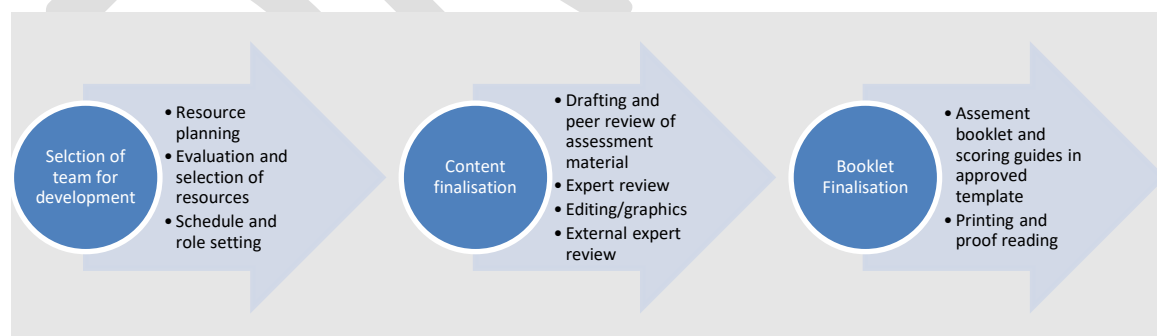
A detailed scheme of assessment including description of all assessments such as internal and external assessments, practical tests is provided by DBSE. The scheme will specify assessment methods and techniques for conducting internal and external assessments.

- The scheme would include:
  - i) the number and types of tasks
  - ii) criteria to be assessed
  - iii) format of the questions

All assessment tasks will be aligned to at least one assessment criterion. Rubrics based on assessment criteria will be used for evaluating the tasks. A comprehensive scoring guide, including the assessment criterion and sample answer will be used to evaluate external assessments.

The process shown below in figure 8 is suggested for the development of external assessment.

Figure 7: External assessment development process



The process for the development of assessment material is outlined below.

Drafting of assessment material:

- Development of the blueprint with decisions on:
  - i) the number and type of tasks
  - ii) criteria to be assessed
  - iii) format of the questions
- Development of test booklets

- i) development of questions based on the blueprint
- Development of comprehensive scoring guides for each question that specify:
  - i) criteria assessed
  - ii) component(s) of the criteria assessed
  - iii) level(s) targeted
  - iv) description of expected responses for each targeted level

## 6.2. Internal assessment

DBSE promotes multiple ways of assessing students. The assessment tasks and methods used in internal assessment should be student-centric and provide feedback for further enhancement of learning. Assessments should not be limited to written tasks.

A task used for internal assessment can be evaluated against a single criterion, however, it is more common to evaluate a task against multiple criteria, with score points assigned separately to each criterion assessed in the task. Score points for a student are recorded criterion-wise for each task. The score points obtained by a student for a criterion from different tasks are then combined to make a judgement on the level of attainment in the criterion.

All internal assessments are to be evaluated at school. However, in order to ensure standardisation, DBSE may moderate the assessments. In the pilot phase, tasks and rubrics used for evaluation are to be shared with DBSE.

Examples of internal assessment tasks and rubrics are given in annexure 1. A list of assessment tasks for internal assessments and unit-wise assessment criteria are provided in annexure 3.

## 6.3. External assessment

External assessment tasks are based on curriculum objectives defined for a subject domain. Considerations while designing an external assessment task are provided below –

- The assessment is consistent with the curriculum and the scheme of assessment in terms of criteria assessed, duration and learning content
- Each assessment task is aligned with assessment criterion/criteria.
- The scoring guide is developed along with the assessment tasks and provides details to allow a full evaluation of the assessment booklet.
- Scoring guide should correctly show the criterion and level/s assessed by a task.
- Overlap between the internal and external assessment tasks should be avoided.
- Each task should provide concrete evidence of student achievement.
- Tasks should be based on important objectives of the curriculum.
- Tasks should be written at a suitable level of linguistic demand given the expected age of students.
- Tasks should be brief, intelligible and unambiguous.
- Tasks should not provide undue advantage to any group of students.

Standardised practices are followed to evaluate external assessments. Students' response sheets are anonymised before the start of the evaluation process. A group of lead examiners evaluate a sample of randomly selected student scripts and make changes to finalise the marking scheme for use by the other examiners. These sample marked scripts will be used for various quality assurance and monitoring purposes to ensure fair and consistent marking by all examiners. The examiners will

evaluate the rest of the scripts and assign raw scores to each response as required by the marking guide. Moderation of raw scores will be done by DBSE.

Further details of evaluation and grading are provided in chapter 6. The evaluations will result in raw scores. The conversion of raw scores to grade points is discussed in the chapter 7.

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## Chapter 7. Evaluation and grading

The primary purpose of assessment and evaluation is to improve student learning. The purpose of evaluation is to make a judgement on the quality of student learning based on well-defined performance standards and assign a value to represent that quality. Evaluation summarizes and communicates to stakeholders what students know and can do with respect to the overall curriculum expectations. Evaluation is based on assessments that provide evidence of student achievement at specific times throughout the academic year, often at the end of a period of learning.

To make judgements about student learning, evaluation will need to be seen in conjunction with the development, administration, scoring and analysis of student responses. The section that follows elaborates upon the processes of development, administration and scoring of student responses to collect high quality evidence that help make informed judgements about student learning.

### 7.1. Administration of assessment

DBSE will ensure standardised administration of assessments by providing schools or centres with:

- a standard administration manual
- adequate training to administer assessments
- details of operational procedures
- adequate materials to administer the assessments including practical tasks

### 7.2. Evaluation of student response

The purpose of evaluation is to describe student achievement by evaluating student responses against the levels of various assessment criteria. This section covers quality parameters DBSE will adopt to ensure fairness and reliability in evaluation.

The evaluation of students' response to tasks can be done:

- automatically – using a software, and
- manually - by evaluators/examiners appointed by DBSE.

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#### 7.2.1. Automatic marking

Appropriate quality control mechanisms will be put in place to confirm the accuracy of automatic evaluation of tasks (for example, sample checks of a specified number of random number of scripts, samples to be taken at different times throughout the process)

In case a task proves to be invalid or inappropriate, that task will be excluded from student evaluation.

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#### 7.2.2. Evaluation by examiners appointed by DBSE

DBSE will adopt multiple methods to evaluate student responses – task-wise evaluation, whole script evaluation or evaluation of parts of scripts by individual evaluators can be undertaken. These may be made available to examiners electronically. Sufficient time will be allocated to the evaluators to mark student scripts with care to allow for reliable monitoring and scoring.

Evaluation will be undertaken by appropriately qualified examiners. All examiners will be experts in the subject, have sufficient language expertise to read student scripts and adequate IT skills and resources to undertake on-screen evaluation where required.

Examiners will ensure reliability (consistency) of the evaluation by –

- using the same scoring guide for all students; and

- not being influenced by factors external to the scoring guide, such as the handwriting or background of the candidate, redundant or extra information provided by students, when applying the scoring instructions.

Further, to ensure the reliability of the evaluations, consistency has to be maintained. Therefore, it is important that clear guidelines and mechanisms are provided to ensure that evaluators are recording their reasoning and judgements on assessment tasks, as below –

- Clear annotated indication of the reason(s) to award a score or level needs to be indicated by the evaluator. The annotations must be legible and clear for anyone who reads them.
- A mechanism for recording the evaluators' judgement based on the scoring instruction for all tasks even for unattempted tasks to minimise risk of transcription and arithmetic errors will be provided.
- For paper-based scripts, a separate sheet for recording scores and notes will be provided and verification of the correctness of the addition of scores done by a checker.

A lead examiner/head evaluator will be appointed to supervise the evaluation process. The head evaluator will lead all evaluation activities of student scripts and undertake necessary steps to ensure that scoring is done consistently and accurately.

The head evaluator will continuously monitor and ensure that scoring instructions are consistently applied and put adequate quality checks in place to ensure the same by:

- training evaluators to ensure familiarity with:
  - scoring instructions,
  - examples of the application of the scoring instructions,
  - the principles that these examples illustrate,
  - the ways in which candidates' work is to be annotated, and
  - the required administrative procedures;
- setting the conditions of the standardisation process before the evaluation process starts;
- monitoring during the period to check that the evaluation continues to be satisfactory throughout; and
- conducting sufficiently extensive and frequent checks to identify evaluators whose marking is unsatisfactory and taking remedial steps.

In case of exceptional circumstances, fair evaluation of student scripts will be done by following the process outlined below –

- Answer scripts received late will be evaluated in the same manner as regular scripts. However, the scripts must be received by the board before the final deadline and the scripts must have been kept secure.
- Inconsistent evaluators will not be allowed to continue evaluation and all the scripts evaluated by them will be remarked by a second evaluator.
- Evaluator being consistently lenient or consistently severe will have their scores adjusted to align with the standard established by the lead examiner.

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### 7.2.3. Moderation

The purpose of moderation is to provide fair assessments (quality assurance) and adjust outcomes of an assessment where necessary to ensure fairness in evaluation (quality control).

Moderation ensures that an assessment outcome (for example a score and / or grade) is fair, valid and reliable. It also ensures that the assessment criteria are applied consistently, and that any differences in judgement between individual evaluators can be acknowledged and addressed. Moderation ensures consistency in evaluation between different subgroups of students and across time.

Moderation can take different forms, depending on the nature of the assessment. In the context of more objectively evaluated work (for example selected response tasks, closed response tasks) moderation may take the form of procedural checking rather than academic judgement.

Moderation will involve reviewing a sample of scripts for each evaluation criteria. In addition to the sample scripts, review will be undertaken for:

- at least 10% of the scripts from different scores obtained by students,
- all scripts where the student has obtained scores below the threshold of passing, and
- all scripts where the lead examiner has concerns.

Currently, second marking<sup>13</sup> will be the method adopted by the board for the purpose of moderation. Other methods of moderation may be employed in the future.

### 7.3. Grading

DBSE has adopted the grade point system to report student achievement. Student achievement in each domain will be reported as a number grade with an associated description that specifies the knowledge, understanding and skills attained by the student gaining that grade.

Four assessment criteria are derived from the learning objectives of each domain. In order to show the degree of competence in each criterion, fine grained descriptions of various levels are provided. These descriptions indicate the progression of achievement in each criterion.

The technical process for determining the level attained by a student in each assessment criterion is discussed in detail in the next chapter.

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#### 7.3.1. Maintaining consistent grading standards

The grading process adopted by DBSE provides a description of student achievement. It is, therefore, essential that the link between the grade and the description remains consistent from year to year. To achieve consistency, assessment tasks must address all levels of achievement described under each assessment criterion and must be similar in overall difficulty or adjusted for difficulty. Further, the evaluation criteria and standards need to be consistent from one year to the next.

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<sup>13</sup> Second marking is a process where an assessment is marked by two examiners.

In academic year 2022 – 2023, for grade 10, DBSE will adopt the grade point system followed by International Baccalaureate (IB) as it was consistent with the overall DBSE approach towards assessment. In IB, all learning objectives in each subject are aligned to one of the four assessment criteria. The criteria represent the use of knowledge, understanding, and skills taught in the subject.

All criteria in all subjects have a maximum of 8 achievement levels i.e., the total number of achievement levels in a subject in a year are 32 (8 levels \* 4 criteria = 32). For each achievement level there are pre-defined level descriptors. Depending on the levels attained by students in each criterion, the corresponding level descriptors are used to report student achievements and indicate what they can do. For each subject, the total of the levels achieved by a student in all four criteria will be used to determine the student's overall grade point.

Grade descriptors are provided in each subject guide provided by the IB. There are seven grade points (grade 1 to grade 7). Grade 1 indicates the lowest performance and grade 7, the highest performance. The seven levels are described in order to reflect overall student performance in assessments.



Criterion A Achievement level	Criterion B Achievement level	Criterion C Achievement level	Criterion D Achievement level
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8

Grade Point	
1 - 5	1
6 - 9	2
10 - 14	3
15 - 18	4
19 - 23	5
24 - 27	6
28 - 32	7

Figure 8: Example of grade point achieved in a subject

The grade categories in IB are shown in the figure below along with the generic (independent of subject) descriptor for each grade. The same system of grade categorisation has been used for reporting of the DBSE assessments in academic year 2021- 2022 for grade 9.

1	1–5	Produces work of very limited quality. Conveys many significant misunderstandings or lacks understanding of most concepts and contexts. Very rarely demonstrates critical or creative thinking. Very inflexible, rarely using knowledge or skills.
2	6–9	Produces work of limited quality. Expresses misunderstandings or significant gaps in understanding for many concepts and contexts. Infrequently demonstrates critical or creative thinking. Generally inflexible in the use of knowledge and skills, infrequently applying knowledge and skills.
3	10–14	Produces work of an acceptable quality. Communicates basic understanding of many concepts and contexts, with occasionally significant misunderstandings or gaps. Begins to demonstrate some basic critical and creative thinking. Is often inflexible in the use of knowledge and skills, requiring support even in familiar classroom situations.
4	15–18	Produces good-quality work. Communicates basic understanding of most concepts and contexts with few misunderstandings and minor gaps. Often demonstrates basic critical and creative thinking. Uses knowledge and skills with some flexibility in familiar classroom situations, but requires support in unfamiliar situations.
5	19–23	Produces generally high-quality work. Communicates secure understanding of concepts and contexts. Demonstrates critical and creative thinking, sometimes with sophistication. Uses knowledge and skills in familiar classroom and real-world situations and, with support, some unfamiliar real-world situations.
6	24–27	Produces high-quality, occasionally innovative work. Communicates extensive understanding of concepts and contexts. Demonstrates critical and creative thinking, frequently with sophistication. Uses knowledge and skills in familiar and unfamiliar classroom and real-world situations, often with independence.
7	28–32	Produces high-quality, frequently innovative work. Communicates comprehensive, nuanced understanding of concepts and contexts. Consistently demonstrates sophisticated critical and creative thinking. Frequently transfers knowledge and skills with independence and expertise in a variety of complex classroom and real-world situations.

Figure 9: IB grade boundaries

## Chapter 8. Reporting

This chapter describes the step-by-step process adopted by DBSE to report the final grade point and grade description for each student. The examples to illustrate the process are from International Baccalaureate (IB) subject guides<sup>14</sup>.

At the end of each academic year a final grade in a subject is assigned to each student. The grade will be numerical. An associated description summarising the knowledge, understanding and skills attained by each student will also be provided. For each term, student achievement will be reported only by criteria and the grade will be provided only on completion of both terms.

### Step 1: Learning objectives for an academic subject

Academic subjects in a school are associated with well-defined objectives. The table below illustrates the objectives of learning mathematics in International Baccalaureate (IB) Middle Year Programme (MYP) (grades 6 to 10). In the IB framework, the learning objectives are also used for assessment purposes and termed as assessment criteria. IB math has four criteria, and each criterion is further divided into components (strands) as shown in the table below.

Table 9: IB MYP Mathematics learning objectives

Learning Objectives in Mathematics				
Criterion	Criterion A	Criterion B	Criterion C	Criterion D
Description	Knowing and understanding	Investigating patterns	Communicating	Applying mathematics in real-life contexts
Strands	I. select appropriate mathematics when solving problems in both familiar and unfamiliar situations II. apply the selected mathematics successfully when solving problems III. solve problems	I. select and apply mathematical problem solving techniques to discover complex patterns II. describe patterns as general rules consistent with findings III. prove, or verify and justify, general rules	I. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations II. use appropriate forms of mathematical representation to present information III. move between	I. identify relevant elements of authentic real-life situations II. select appropriate mathematical strategies when solving authentic real-life situations III. apply the selected mathematical strategies successfully

<sup>14</sup> International Baccalaureate Mathematics guide (2015) for middle year programme.

	correctly in a variety of contexts.		<p>different forms of mathematical representation</p> <p>IV. communicate complete, coherent and concise mathematical lines of reasoning</p> <p>V. organize information using a logical structure.</p>	<p>to reach a solution</p> <p>IV. justify the degree of accuracy of a solution</p> <p>V. justify whether a solution makes sense in the context of the authentic real-life situation.</p>
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## Step 2: Learning progression in objectives for the complete programme

Based on the learning objectives of the academic subject for the school years, the progression<sup>15</sup> in each criterion across the grades (for example, grades 6 to 10) is defined. The table below illustrates the progression in criterion A: Knowing and Understanding in IB MYP mathematics for years 1, 3 and 5.

Table 10: IB MYP Mathematics progression

Objective D: Applying mathematics in real-life contexts		
i. identify relevant elements of authentic real-life situations	i. identify relevant elements of authentic real-life situations	i. identify relevant elements of authentic real-life situations
ii. select appropriate mathematical strategies when solving authentic real-life situations	ii. select appropriate mathematical strategies when solving authentic real-life situations	ii. select appropriate mathematical strategies when solving authentic real-life situations
iii. apply the selected mathematical strategies successfully to reach a solution	iii. apply the selected mathematical strategies successfully to reach a solution	iii. apply the selected mathematical strategies successfully to reach a solution
iv. explain the degree of accuracy of a solution	iv. explain the degree of accuracy of a solution	iv. justify the degree of accuracy of a solution
v. describe whether a solution makes sense in the context of the authentic real-life situation.	v. explain whether a solution makes sense in the context of the authentic real-life situation.	v. justify whether a solution makes sense in the context of the authentic real-life situation.

<sup>15</sup> The UNESCO Institute for Statistics reporting scales (UIS RS) describe learning progression as a continuum that maps key stages in the development of a learning domain (e.g. reading and mathematics) from simple beginnings through to complex interpretations and applications.



### Step 3: Assessment criterion (achievement level descriptions)

A criterion can be further divided into levels of performance (these levels could be based on the depth of coverage of content/cognitive demand/complexity) to make a judgement about the degree of attainment in the criterion for the grade in which a student is studying. The table below illustrates IB Math assessment criterion A, along with its achievement levels for students in grade 10.

Table 11: IB MYP Mathematics achievement levels (MYP Year 5)

Achievement level	Level descriptor
0	The student <b>does not</b> reach a standard described by any of the descriptors below.
1–2	The student is able to: <ol style="list-style-type: none"> <li>i. select appropriate mathematics when solving <b>simple problems in familiar situations</b></li> <li>ii. apply the selected mathematics successfully when solving these problems</li> <li>iii. generally solve these problems correctly in a variety of contexts.</li> </ol>
3–4	The student is able to: <ol style="list-style-type: none"> <li>i. select appropriate mathematics when solving <b>more complex problems in familiar situations</b></li> <li>ii. apply the selected mathematics successfully when solving these problems</li> <li>iii. generally solve these problems correctly in a variety of contexts.</li> </ol>
5–6	The student is able to: <ol style="list-style-type: none"> <li>i. select appropriate mathematics when solving <b>challenging problems in familiar situations</b></li> <li>ii. apply the selected mathematics successfully when solving these problems</li> <li>iii. generally solve these problems correctly in a variety of contexts.</li> </ol>
7–8	The student is able to: <ol style="list-style-type: none"> <li>i. select appropriate mathematics when solving <b>challenging problems in both familiar and unfamiliar situations</b></li> <li>ii. apply the selected mathematics successfully when solving these problems</li> <li>iii. generally solve these problems correctly in a variety of contexts.</li> </ol>

#### Step 4: Weightage of criterion for reporting

The weightage assigned to each criterion of a subject for reporting will be decided by DBSE. IB gives equal weightage to all criteria in its reporting. IB also recommends assessing each strand of each criterion at least two times in one academic year.

Table 12: Weightage of each criterion in a subject

Assessment Criterion	A	B	C	D
Weightage	25%	25%	25%	25%

**Note:** All criteria may not be equally weighted across specializations. DBSE understands that certain criteria in some subjects may need to be weighted more than others. For example, in music, the listening, composing and performing criteria are not equally weighted.

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## Step 5: Assessment tool and model

To report student achievement through grades, DBSE considers both internal assessments and external assessments. In the DBSE model, 80% of the final grade is contributed by the external assessment(s) and 20% by the internal assessments.

The academic year is divided into two terms at DBSE. An external assessment will be conducted at the end of each term and will contribute 40% to the final grade. The two external assessments will, therefore, contribute 80% in total to the final grade. Similarly, internal assessments from each term will contribute 10% each to the final grade adding up to 20%.

All assessment tasks developed for these assessments should assess at least one assessment criterion and target a pre-specified level described in step 3. **Evaluation/scoring of each task would be undertaken criterion-wise rather than providing a total score obtained.** DBSE understands that maintaining proportional weightage for the criteria in the assessment is not always possible and accepts some variations.

The table below shows an example of the distribution of score points criterion-wise in three assessments (two internal and one external) during one term. Maximum score points in an assessment are the maximum score that a student can get in the assessment. The assessments have different maximum score points for each criterion.

Table 13: Maximum score point in a criterion in an assessment task

Assessment Criterion	Cr A	Cr B	Cr C	Cr D
Internal Assessment 1 (IA1)	8	0	6	6
Internal Assessment 2 (IA2)	4	8	6	6
External Assessment 1 (EA1)	20	16	14	20

## Step 6a: Converting score points into weighted score points in internal assessment

The score points directly obtained by a student in an assessment is called the **raw score**. It is calculated by the examiner based on the scoring guide/rubric for the task/s.

Student raw scores are assigned criterion-wise in an assessment. The raw scores are converted to **weighted scores** using a simple mathematical operation of multiplying the score with a number to get the weighted score. The weighted score will be used for the purpose of reporting student performance/achievement levels in a criterion.

The table below illustrates the conversion of scores from one internal assessment to weighted scores for the case where all criteria are equally weighted and internal assessment contribution towards the achievement level in a term is 2.5 score points in each criterion, adding up to 10 score points for the internal assessment in the term.

Table 14: Calculation of score points for internal assessment

Assessment Criterion	Cr A	Cr B	Cr C	Cr D
Example score points (of a student) (Student raw score)	11	8	5	12
Maximum score points in internal assessments (Max raw scores for each criterion)	12	8	12	12
Student weighted score (Student raw score / max score) * max weighted score	2.25	2.5	1.67	2
Maximum weighted scores (Contribution towards achievement level)	2.5	2.5	2.5	2.5

## Step 6b: Converting score points into weighted score points in external assessment

The process is the same as in step 6A. As 40% weightage is given to the external assessment in each term, it amounts to a weighted score of 10 score points for each criterion, assuming equal weightage for each criterion.

Maximum score points for each criterion in an assessment can be decided according to the task/s used. They can be adjusted as per the weightage of the external assessment in a term in each criterion. The table below illustrates the external assessment score calculation.

Table 15: Calculation of score points for external assessment

Assessment Criterion	Cr A	Cr B	Cr C	Cr D
Example score points (of a student) (Student raw score)	15	12	14	18
Maximum score points in internal assessments (Max raw scores for each criterion)	20	16	14	20
Student weighted score (Student raw score / max score) * max weighted score	7.5	7.5	10	9
Maximum weighted scores (Contribution towards achievement level)	10	10	10	10

## Step 7: Total weighted score points in a criterion

The total score points in a criterion are the sum of the weighted scores in internal and external assessments. The table below illustrates the total score points for the case where all criteria are equally weighted and the contribution of internal and external assessments towards the overall achievement level in a term is 10% and 40%, respectively. Therefore, each criterion contributes 12.5 weighted score points in total, with 2.5 weighted score points from internal assessments and 10 weighted score points from external assessments.

Table 16: Score points for one Term

Assessment Criterion	Cr A	Cr B	Cr C	Cr D
Example Student score points obtained (Weighted internal score points + weighted external score points)	9.75	10	11.67	11
Maximum score points in a term (Weighted internal score points + weighted external score points)	12.5	12.5	12.5	12.5

## Step 8: Assigning levels for a criterion for one term

The score boundaries for each level in a criterion are defined. Then, based on students' weighted scores, the level of attainment is assigned, and the level description is provided.

The table below illustrates how boundaries can be defined for 8 levels of an assessment criteria in a term.

Table 17: Assigning a level

Boundary	Level	Description
1 – 1.15	1	xx
1.151-3.13	2	xx
3.131- 4.69	3	xx
4.691- 6.25	4	xx
6.251 – 7.81	5	xx
7.811 – 9.38	6	Xx
9.381 – 10.94	7	Xx
10.941 – 12.5	8	Xx

Decisions on score boundaries are based on a judgmental process that involves a team comprising experts on assessment, statistics, examiners and curriculum, deciding the cut-offs for each term.

**NOTE:** Variations in difficulties between assessments (across years) and variations in coverage of levels of criteria in assessment may result in cut-offs varying from year to year.

## Step 9: Grade point in a subject

In an academic year, the weighted scores obtained (in each criterion) by a student in the two terms are added to obtain the final criterion level.

The final subject grade point is obtained by adding the levels for each criterion. Maximum score points in a subject can be 32 (4 criteria x 8 levels). The overall number of levels are divided into seven grades and a substantive description created for each level which indicates what students know and can do.

The table below illustrates the IB grade boundaries for each grade for mathematics along with the description of proficiency at the grade level.

Table 18: IB MYP Grade description

Boundary	Grade	Description
28 – 32	Grade 7	Produces high-quality work that frequently uses mathematics insightfully. Communicates comprehensive, nuanced understanding of concepts and contexts demonstrating proficient application of mathematical techniques and terminology. Consistently demonstrates sophisticated analytical thinking and logical processes when problem solving and investigating. Frequently transfers mathematical knowledge and applies skills, with independence and expertise, in a variety of complex classroom and real-world situations.
24 – 27	Grade 6	Produces high-quality, occasionally insightful mathematical work. Communicates extensive understanding of concepts and contexts demonstrating proficient application of mathematical techniques and terminology. Demonstrates analytical thinking and logical processes, frequently with sophistication when problem solving and investigating. Transfers mathematical knowledge and applies skills, often with independence, in a variety of familiar and unfamiliar classroom and real-world situations.
19 – 23	Grade 5	Produces generally high-quality mathematical work. Communicates good understanding of concepts and contexts demonstrating proficient application of mathematical techniques and terminology. Demonstrates analytical thinking and logical processes, sometimes with sophistication, when problem solving and investigating. Usually transfers mathematical knowledge and applies skills, with some independence, in familiar classroom and real-world situations.
15 – 18	Grade 4	Produces good-quality mathematical work. Communicates basic understanding of most concepts and contexts with evidence of appropriate application of mathematical techniques and terminology, with few misunderstandings and minor gaps. Often demonstrates analytical thinking when problem solving and investigating. Transfers some mathematical knowledge and applies skills in familiar classroom situations but requires support in unfamiliar situations.
10 – 14	Grade 3	Produces mathematical work of an acceptable quality. Communicates basic understanding of many concepts and contexts



Boundary	Grade	Description
		with occasional evidence of appropriate application of mathematical techniques and terminology, with occasional significant misunderstandings or gaps. Begins to demonstrate some analytical thinking when problem solving and investigating. Begins to transfer mathematical knowledge and apply skills, requiring support even in familiar classroom situations.
6 – 9	Grade 2	Produces mathematical work of limited quality. Communicates limited understanding of some concepts and contexts. Demonstrates limited evidence of mathematical thinking. Limited evidence of transfer of mathematical knowledge and application of skills.
1 – 5	Grade 1	Produces work of a very limited quality. Conveys many significant misunderstandings or lacks understanding of most concepts and contexts. Very rarely demonstrates evidence of mathematical thinking. Very inflexible, rarely shows evidence of knowledge or skills.

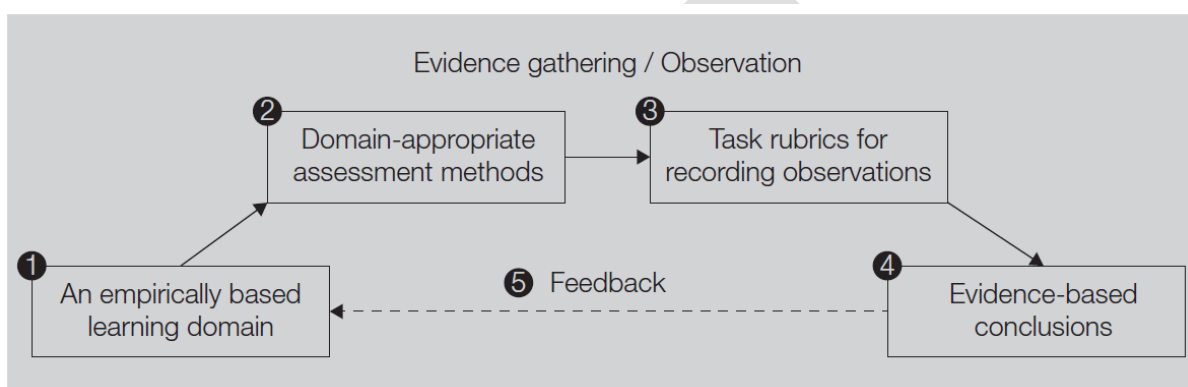
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## Chapter 9. Closing the loop – integrating assessments with teaching and learning

DBSE aspires to make its students self-confident and future ready. One of the most effective strategies for building its students' self-confidence is to enable them to see the progress they are making. DBSE's approach to assessment and reporting is therefore focussed on communicating assessment processes and descriptions of student achievement. The descriptions reflect students' knowledge, understanding and skills.

### 9.1. Integrating DBSE assessments with learning

DBSE assessments synchronise learning domain (curriculum) with the evidence gathering process (assessment) and the process of drawing conclusions from the evidence (reporting). A process for establishing the link between the three areas – curriculum, assessment and reporting – is provided below (adapted from Masters, 2013)<sup>16</sup>.



Source: (Masters, 2013)

Every course of education consists of learning domains that are ideally structured based on empirical evidence. Achievement in the domain then needs to be assessed through multiple assessment methods that are appropriate to the domain. Multiple methods are essential to ensure that diverse styles of learning are catered to. The tasks then need to be evaluated using task specific rubrics. These are necessary to generate the information that will help interpret student performance reliably. These interpretations or conclusions should ideally place a student in a continuum of learning so that students understand where they are in their learning journey and understand how to progress.

The process described in the previous section enables DBSE to integrate assessment with learning through the use of –

- a well-designed curriculum, including assessment criteria that incorporate a clear progression of achievement
- multiple assessment modes, that incorporate high quality assessment tasks
- support for drawing evidence-based conclusions and providing effective feedback

The assessment criteria are broken down into levels of achievement which are clearly described. The level descriptors of an assessment criterion depict clear progression of improvement of skills and competencies for a learning period. Assessments based on assessment criteria enable students to self-monitor and build self-belief as they can see the evidence of the progress they are making over time.

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<sup>16</sup> Masters, G.N.2013. Reforming Educational Assessment: Imperatives, principles and challenges. ACER Press

Students can track their progress using level descriptors and can also understand how their work can be improved to attain a higher grade or even the highest grades. All the assessment tasks are aligned to assessment criteria and tagged with the levels of achievement they are assessing under the criteria. These levels are operationalised through task specific rubrics that help identify the students' levels of achievement.

All assessment tasks used to report students' achievements are based on task specific, hierarchical, and qualitatively defined rubrics. The categories used in rubrics represent increasing quality or sophistication of response to a task. They provide a basis for evaluating and recording students' responses to an assessment task. A rubric makes assessment expectations transparent and explicitly links the levels of achievement with the task.

In addition to providing feedback to students and teachers for improving learning, assessments also provide feedback at the systemic level. The feedback can inform various areas including policy making, curriculum development, teacher training, etc.

DBSE assessments provide a way to continually check on current levels of learning and achievement as well as monitor progress over time. Assessments and reporting at DBSE are designed to –

- provide starting points for action by various stakeholders such as teachers, students, school leaders, system leaders, etc.
- provide a basis for monitoring learning progress and evaluating the effectiveness of past actions
- promote classroom learning cultures

Traditionally, educational assessments assess only taught content (facts, concepts, skills, procedures, etc.) and report whether students have successfully learnt it. In contrast, DBSE assessments are designed to establish where learners are in their ongoing learning journey and provide effective feedback to progress further.

In conclusion, assessment is an integral and essential component of effective learning, teaching and educational decision-making at DBSE.

## Chapter 10. Annexures

### 10.1. Internal and external assessment tasks

#### 10.1.1. Example of internal and external assessment tasks in English

##### 10.1.1.1. Internal assessment task and rubric

Internal Assessment Task: English

Grade	9
Subject domain (can be more than one)	Language and Literature (English)
Sub-topics	NA
Type of task	Essay
Objective of the task	Organise information and produce written text
LO (can be multiple LOs)	<ul style="list-style-type: none"><li>• Learners will enhance their creativity and imagination.</li><li>• Learners will use their cultural legacy to share their thoughts.</li></ul>
Task description	A report based on one of the topics below: <ul style="list-style-type: none"><li>• Reflect upon and <b>examine</b> the major differences between urban and rural life.</li><li>• <b>Analyse</b> the effect of online classes on your learning.</li></ul>
1. Instructions for students	<ul style="list-style-type: none"><li>• Create a report of at least 750 words on one of the topics provided.</li><li>• Your essay will be evaluated based on the originality, content and organisation of information. Please see the rubric attached.</li></ul>
2. Instructions for teachers	<ul style="list-style-type: none"><li>• Students can select one topic from the list provided.</li><li>• The essay should be evaluated based on the rubric provided below.</li><li>• The rubric can be shared with students when the students are selecting their topics.</li><li>• The essays need to be evaluated and retained as the board may review all or some of the copies.</li><li>• The scoring should be done in the format provided and then, submitted.</li></ul>

3. Resources required	
By students	Internet & other sources for research
By teachers	Rubric
4. Assessment criteria	<p>Criterion B: Organizing</p> <ul style="list-style-type: none"> <li>i. employ organizational structures that serve the context and intention</li> <li>ii. organize opinions and ideas in a coherent and logical manner</li> <li>iii. use referencing and formatting tools to create a presentation style suitable to the context and intention.</li> </ul> <p>Criterion C: Producing Text</p> <ul style="list-style-type: none"> <li>i. produce texts that demonstrate thought, imagination and sensitivity, while exploring and considering new perspectives and ideas arising from personal engagement with the creative process</li> <li>ii. make stylistic choices in terms of linguistic, literary and visual devices, demonstrating awareness of impact on an audience</li> <li>iii. select relevant details and examples to develop ideas.</li> </ul>

Task assessment criteria (RUBRIC)

Score points	1-2	3-4	5-6	7-8
Criterion B: Organising	<ul style="list-style-type: none"> <li>• makes minimal use of organizational structures though these may not always serve the context and intention</li> <li>• organizes opinions and ideas with a minimal degree of coherence and logic</li> <li>• format may not always be suitable to the context and intention.</li> </ul>	<ul style="list-style-type: none"> <li>• makes adequate use of organizational structures that serve the context and intention</li> <li>• organizes opinions and ideas with some degree of coherence and logic</li> <li>• format is often suitable to the context and intention.</li> </ul>	<ul style="list-style-type: none"> <li>• makes competent use of organizational structures that serve the context and intention</li> <li>• organizes opinions and ideas in a coherent and logical manner with ideas building on each other</li> <li>• format is usually suitable to the context and intention.</li> </ul>	<ul style="list-style-type: none"> <li>• makes sophisticated use of organizational structures that serve the context and intention effectively</li> <li>• effectively organizes opinions and ideas in a coherent and logical manner with ideas building on each other in a sophisticated way</li> <li>• uses the format effectively to present information</li> </ul>

<p>Criterion C: Processing and evaluating</p>	<ul style="list-style-type: none"> <li>• produces texts that demonstrate limited personal engagement with the creative process; demonstrates a limited degree of thought, imagination and sensitivity and minimal exploration and consideration of new perspectives and ideas</li> <li>• makes minimal stylistic choices in terms of linguistic, literary and visual devices, demonstrating limited awareness of impact on an audience</li> <li>• selects few relevant details and examples to develop ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• produces texts that demonstrate adequate personal engagement with the creative process; demonstrates some degree of thought, imagination and sensitivity and some exploration and consideration of new perspectives and ideas</li> <li>• makes some stylistic choices in terms of linguistic, literary and visual devices, demonstrating adequate awareness of impact on an audience</li> <li>• selects some relevant details and examples to develop ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• produces texts that demonstrate considerable personal engagement with the creative process; demonstrates considerable thought, imagination and sensitivity and substantial exploration and consideration of new perspectives and ideas</li> <li>• makes thoughtful stylistic choices in terms of linguistic, literary and visual devices, demonstrating good awareness of impact on an audience</li> <li>• selects sufficient relevant details and examples to develop ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• produces texts that demonstrate a high degree of personal engagement with the creative process; demonstrates a high degree of thought, imagination and sensitivity and perceptive exploration and consideration of new perspectives and ideas</li> <li>• makes perceptive stylistic choices in terms of linguistic, literary and visual devices, demonstrating clear awareness of impact on an audience</li> <li>• selects extensive relevant details and examples to develop ideas with precision.</li> </ul>
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### 10.1.1.2. Example of external assessment task and scoring

Q16 In the poem, *The Lake Isle of Innisfree*, outline the reasons why the poet wants to go to Innisfree.

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Task Number	16	
Item Type	Open constructed response	
IB Criteria	Criterion A: Analysing	Score points
Description	<ul style="list-style-type: none"> <li>Any answer that contains TWO of the points below:               <ul style="list-style-type: none"> <li>Peaceful atmosphere of Innisfree</li> <li>Childhood memories attached to that place</li> <li>Natural beauty</li> </ul> </li> </ul>	5
Description	<ul style="list-style-type: none"> <li>Any answer that contains ONE of the points below:               <ul style="list-style-type: none"> <li>Peaceful atmosphere of Innisfree</li> <li>Childhood memories attached to that place</li> <li>Natural beauty</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>3</li> </ul>
IB Criteria	Criterion D: Using language	Score points
Description	<ul style="list-style-type: none"> <li>uses grammar, syntax and punctuation with a high degree of accuracy; errors are rare, and communication is effective</li> </ul>	<ul style="list-style-type: none"> <li>8 if all characteristics are met.</li> <li>7 if some of the characteristics are met.</li> </ul>
Description	<ul style="list-style-type: none"> <li>uses grammar, syntax and punctuation with a considerable degree of accuracy; minor errors do not hinder effective communication</li> </ul>	<ul style="list-style-type: none"> <li>6 if all characteristics are met.</li> <li>5 if some of the characteristics are met.</li> </ul>
Description	<ul style="list-style-type: none"> <li>uses grammar, syntax and punctuation with some degree of accuracy; errors sometimes hinder communication</li> </ul>	<ul style="list-style-type: none"> <li>4 if all characteristics are met.</li> <li>3 if some of the characteristics are met.</li> </ul>
Description	<ul style="list-style-type: none"> <li>uses grammar, syntax and punctuation with limited accuracy; errors often hinder communication</li> </ul>	<ul style="list-style-type: none"> <li>2 if all characteristics are met.</li> <li>1 if some of the characteristics are met.</li> </ul>



## 10.1.2. Example of internal and external assessment tasks in hindi

### 10.1.2.1. Internal assessment task and rubric

Internal Assessment Task: Hindi

Grade	9
Subject domain (can be more than one)	Hindi
Sub topics	NA
Type of task	Listening Comprehension
Objective of the task	Comprehending spoken text and communicating in response to a spoken text.
LO (can be multiple LOs)	Learner is able to: <ul style="list-style-type: none"><li>• listen for specific purposes and respond to show understanding</li><li>• engage with the text by supporting opinion and personal response with evidence and examples from the text</li></ul>
Task description	A 5 minute text is presented for listening and a set of questions are provided for students to respond.
1. Instructions for students	<ul style="list-style-type: none"><li>• You will be asked to listen to an audio text.</li><li>• After you have listened once, a booklet will be provided to you with Questions.</li><li>• After you go through the questions, the audio will be played again.</li><li>• You can listen to the audio a maximum of three times.</li><li>• You have 45 minutes for the task.</li></ul>
2. Instructions for teachers	<ul style="list-style-type: none"><li>• Students can listen to the text a maximum of three times. If there is an interruption, start from the beginning and do not count the interrupted playback among the three times.</li><li>• Students can be presented with the questions after they have listened to the text once.</li><li>• The assessment will be for a total of 20 marks.</li><li>• Prepare the questions and the marking guide in advance of the assessment.</li><li>• Record the marks in the format provided.</li></ul>

3. Resources required	Audio equipment to play the audio.
By students	Print outs of the assessment booklets
By teachers	Audio file, assessment booklets and scoring guide
4. Assessment criteria	<p>Criterion A: Comprehending spoken and visual text</p> <ul style="list-style-type: none"> <li>i. construct meaning and draw conclusions from information, main ideas and supporting details</li> <li>ii. interpret conventions</li> <li>iii. engage with the spoken and visual text by identifying ideas, opinions and attitudes and by making a response to the text based on personal experiences and opinions</li> </ul>

#### Guidelines for assessment of listening

- The text should be 5 minutes long.
- You can select the text from publicly available sources such as podcasts, audio stories, news reports etc.
- A set of questions for 10 score points should be prepared including Multiple Choice Questions (or other selected response tasks) and short answer questions as per the blueprint provided below –
  - 4 selected response questions (MCQs, etc.) – 4 score points (5 x 1)
  - 3 short response questions (1-3 sentences) – 6 score points (3 x 2)
- A marking guide needs to be prepared before the assessment begins.
- Please ensure an environment that allows students to listen without interruptions or disturbances.
- The students can listen to the audio a maximum of three times, once before they are provided with the questions and two times after that.
- The audio and printout of the questions should be submitted.
- The marking should be recorded in the format provided and submitted for documentation purposes.
- The maximum time allotted for the task is 45 minutes.

### 10.1.2.2. Example of external assessment task and scoring

Q26 **माटी वाली** की दिनचर्या को अपने शब्दों में लिखिए।

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Task Number	26	
Item Type	Open constructed response	
IB Criteria	Criterion B: Comprehending written and visual text	Score points
<b>Description</b>	<p>कहानी या घटनाओं से संबन्धित उत्तर जिसमें निम्नलिखित <b>चारों</b> बिंदुओं के बारे में लिखा गया हो-</p> <ul style="list-style-type: none"> <li>• सुबह सुबह माटाखाना से माटी निकालना ।</li> <li>• टिहरी के लोगों के घर माटी बेचना ।</li> <li>• देर शाम तक घर वापस जाना ।</li> <li>• थोड़े बहुत मिले पैसों से अपने बूढ़े पति तथा अपने लिए खाना बनाना ।</li> </ul> <p>यदि इससे संबंधित उत्तर विद्यार्थी अपने शब्दों में दे रहा है तो भी उसके स्तर को इसी के अंतर्गत मापा जाएगा ।</p>	<b>7</b>
<b>Description</b>	<p>कहानी या घटनाओं से संबन्धित उत्तर जिसमें निम्नलिखित <b>तीन</b> बिंदुओं के बारे में लिखा गया हो-</p> <ul style="list-style-type: none"> <li>• सुबह सुबह माटाखाना से माटी निकालना ।</li> <li>• टिहरी के लोगों के घर माटी बेचना ।</li> <li>• देर शाम तक घर वापस जाना ।</li> <li>• थोड़े बहुत मिले पैसों से अपने बूढ़े पति तथा अपने लिए खाना बनाना ।</li> </ul> <p>यदि इससे संबंधित उत्तर विद्यार्थी अपने शब्दों में दे रहा है तो भी उसके स्तर को इसी के अंतर्गत मापा जाएगा ।</p>	<b>5</b>
<b>Description</b>	<p>कहानी या घटनाओं से संबन्धित उत्तर जिसमें निम्नलिखित <b>दो</b> बिंदुओं के बारे में लिखा गया हो।</p> <ul style="list-style-type: none"> <li>• सुबह सुबह माटाखाना से माटी निकालना ।</li> <li>• टिहरी के लोगों के घर माटी बेचना ।</li> <li>• देर शाम तक घर वापस जाना ।</li> </ul>	<b>3</b>

	<ul style="list-style-type: none"> <li>थोड़े बहुत मिले पैसों से अपने बूढ़े पति तथा अपने लिए खाना बनाना ।</li> </ul> <p>यदि इससे संबंधित उत्तर विद्यार्थी अपने शब्दों में दे रहा है तो भी उसके स्तर को इसी के अंतर्गत मापा जाएगा ।</p>	
<b>Description</b>	<p>कहानी या घटनाओं से संबंधित उत्तर जिसमें निम्नलिखित एक बिंदु के बारे में लिखा गया हो-</p> <ul style="list-style-type: none"> <li>सुबह सुबह माटाखाना से माटी निकालना ।</li> <li>टिहरी के लोगों के घर माटी बेचना ।</li> <li>देर शाम तक घर वापस जाना ।</li> <li>थोड़े बहुत मिले पैसों से अपने बूढ़े पति तथा अपने लिए खाना बनाना ।</li> </ul> <p>यदि इससे संबंधित उत्तर विद्यार्थी अपने शब्दों में दे रहा है तो भी उसके स्तर को इसी के अंतर्गत मापा जाएगा ।</p>	1
<b>IB Criteria</b>	<b>Criterion C: Communicating in response to spoken, written and visual text</b>	<b>Score points</b>
<b>Description</b>	<p>विद्यार्थी कहानी या घटनाओं से संबंधित –</p> <ul style="list-style-type: none"> <li>विस्तृत और उचित रूप से प्रतिक्रिया करता है।</li> <li>विचारों की एक विस्तृत श्रृंखला को प्रभावी ढंग से व्यक्त करता है।</li> <li>सूचनाओं का संचार करता है; विचार प्रासंगिक और विकसित हैं।</li> </ul>	<ul style="list-style-type: none"> <li>सारे बिंदु लागू हो तो 8</li> <li>कुछ बिंदु लागू हो तो 7</li> </ul>
<b>Description</b>	<p>विद्यार्थी कहानी या घटनाओं से संबंधित–</p> <ul style="list-style-type: none"> <li>उचित रूप से प्रतिक्रिया करता है।</li> <li>विचारों को व्यक्त करता है।</li> <li>सूचनाओं का संचार करता है; विचार हमेशा प्रासंगिक और विस्तृत नहीं होते हैं।</li> </ul>	<ul style="list-style-type: none"> <li>सारे बिंदु लागू हो तो 6</li> <li>कुछ बिंदु लागू हो तो 5</li> </ul>
<b>Description</b>	<p>विद्यार्थी कहानी या घटनाओं से संबंधित–</p> <ul style="list-style-type: none"> <li>कुछ हद तक प्रतिक्रिया करता है, हालांकि कुछ प्रतिक्रियाएं अनुपयुक्त हो सकती हैं।</li> <li>कुछ विचारों को व्यक्त करता है, और कुछ सूचनाओं का संचार करता है।</li> <li>विचार कभी-कभी प्रासंगिक या विस्तृत होते हैं।</li> </ul>	<ul style="list-style-type: none"> <li>सारे बिंदु लागू हो तो 4</li> <li>कुछ बिंदु लागू हो तो 3</li> </ul>
<b>Description</b>	<p>विद्यार्थी कहानी या घटनाओं से संबंधित–</p> <ul style="list-style-type: none"> <li>प्रतिक्रिया देने का सीमित प्रयास करता है; प्रतिक्रियाएँ अक्सर अनुपयुक्त होती हैं।</li> <li>कुछ विचार व्यक्त करता है, और न्यूनतम जानकारी का संचार करता है।</li> </ul>	<ul style="list-style-type: none"> <li>सारे बिंदु लागू हो तो 2</li> <li>कुछ बिंदु लागू हो तो 1</li> </ul>
<b>IB Criteria</b>	<b>Criterion D: Using language in spoken and written form</b>	<b>Score points</b>

<b>Description</b>	विस्तृत एवं विभिन्न व्याकरणिक संरचनाओं का उपयोग किया गया है जो आम तौर पर सटीक है।	<ul style="list-style-type: none"> <li>• सारे बिंदु लागू हो तो 8</li> <li>• कुछ बिंदु लागू हो तो 7</li> </ul>
<b>Description</b>	बहुत कम व्याकरणिक, वर्तनी या विराम चिह्न त्रुटियाँ जो अर्थ को प्रभावित नहीं करती हैं।	<ul style="list-style-type: none"> <li>• सारे बिंदु लागू हो तो 6</li> <li>• कुछ बिंदु लागू हो तो 5</li> </ul>
<b>Description</b>	कुछ व्याकरणिक, वर्तनी या विराम चिह्न त्रुटियाँ जो कभी-कभी अर्थ को समझने में बाधा उत्पन्न करती हैं, लेकिन अर्थ को समझना संभव है।	<ul style="list-style-type: none"> <li>• सारे बिंदु लागू हो तो 4</li> <li>• कुछ बिंदु लागू हो तो 3</li> </ul>
<b>Description</b>	बड़ी संख्या में व्याकरण संबंधी, वर्तनी या विराम चिह्न की त्रुटियाँ जो अक्सर अर्थ को बाधित करती हैं।	<ul style="list-style-type: none"> <li>• सारे बिंदु लागू हो तो 2</li> <li>• कुछ बिंदु लागू हो तो 1</li> </ul>

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### 10.1.3. Example of internal and external assessment tasks in mathematics

#### 10.1.3.1. Internal assessment task and rubric

Grade	9
Subject	Mathematics
Subtopics	Geometry
Unit / Unit Title	3/2 D Geometry – Spatial Reasoning
Type of task	Modelling
Task description	Draw a building/bridge/product on a paper and explain relationships among geometrical shapes and the related measurements used in it. The drawing should contribute towards creative and innovative practices in the related field.
1. Instructions for students	<p>Design a plan for one of the following on an A4 sheet.</p> <ul style="list-style-type: none"> <li>• Floor plan of building</li> <li>• Layout of a bridge</li> <li>• Design of a consumer product – (for example – mobile phone)</li> </ul> <p>Plan should be drawing specifying different components (for example number and location of rooms in a building, their dimensions, area etc.)</p> <p>The plan should be labelled.</p> <p>Important measurements should be marked on it.</p> <p>Highlight the shapes (triangles/quadrilaterals/parallel lines) used.</p> <p>It need not be a scale drawing.</p> <p>On a separate A4 sheet</p> <ul style="list-style-type: none"> <li>• State how the plan can be used to create an innovative and eco-friendly product.</li> <li>• Calculate the area/space occupied by the product.</li> <li>• Write the properties of shapes/parallel lines/angles used in the blueprint.</li> <li>• State and explain the geometric theorem used in the blueprint.</li> </ul> <p>Before submitting the work, self-assess your work with the rubric provided.</p>
2. Instructions for teachers	<p>The objective of the task is to deepen the understanding of the properties of 2-D shapes and how they can be used in designing blueprints of innovative products. Encourage the students to create a blueprint that has practical applications as well as innovation. Share the rubric with students so that they understand the task better.</p>

3. Resources required	
By students	Chart paper, A4 sheets, scale, pencil, colour pen.
By teachers	
4. Assessment criteria	A. Knowing and understanding C. Communication D. Applying mathematics in real life contexts

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Score point	1-2	3-4	5-6	7-8
Criterion A: Knowing and understanding	<ul style="list-style-type: none"> <li>selects appropriate 2 – D shapes to draw a blueprint of the basic model (without innovation/creativity)</li> </ul>	<ul style="list-style-type: none"> <li>selects appropriate 2 – D shapes to draw a blueprint of a simple model</li> <li>explains properties of shapes used in the drawing</li> </ul>	<ul style="list-style-type: none"> <li>selects appropriate 2 – D shapes to draw a blueprint of an innovative product</li> <li>explains how an axiom/theorem helps in drawing the blueprint</li> </ul>	<ul style="list-style-type: none"> <li>selects appropriate 2 – D shapes to draw a blueprint of an innovative and practical model</li> <li>explains how an axiom/theorem is the foundation of the blueprint</li> </ul>
Criterion C: Communicating	<ul style="list-style-type: none"> <li>uses limited measurements in the blueprint</li> <li>explains through lines of reasoning that are difficult to understand</li> </ul>	<ul style="list-style-type: none"> <li>uses appropriate measurements in the blueprint</li> <li>explains through lines of reasoning that are complete</li> <li>organizes information using a logical structure</li> </ul>	<ul style="list-style-type: none"> <li>uses appropriate measurements and labels in the blueprint</li> <li>explains through lines of reasoning that are complete and coherent</li> <li>the work is presented well, and information is organized using a logical structure</li> </ul>	<ul style="list-style-type: none"> <li>uses appropriate measurements, labels in the blueprint and marking is in a fixed format</li> <li>explains through lines of reasoning that are complete, coherent and concise</li> <li>the work is presented well, and information is organized consistently using a logical structure</li> </ul>



<p>Criterion D: Applying mathematics in real-life contexts</p>	<ul style="list-style-type: none"> <li>• draws a blueprint in which some of the elements of the blueprint are practical</li> <li>• links between properties/theorem and the blueprint/model are absent</li> </ul>	<ul style="list-style-type: none"> <li>• draws a blueprint in which relevant elements for the practical model is present</li> <li>• some links between properties/theorem and the blueprint/model are present</li> </ul>	<ul style="list-style-type: none"> <li>• draws a blueprint in which relevant elements for the innovative model is present</li> <li>• links between properties/theorem and the blueprint/model are established</li> </ul>	<ul style="list-style-type: none"> <li>• draws a blueprint in which all the relevant elements for the innovative model is present</li> <li>• links between properties/theorem and the blueprint/model are established</li> </ul>
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### 10.1.3.2. Example of external assessment task and scoring

A newspaper publishes news about an increase in auto fare in Delhi. A chart comparison existing and revised fares is given below.

<b>YOUR RIDE GETS COSTLIER</b>			<small>■ Auto-rickshaw fare at present</small> <small>■ Auto-rickshaw fare post-hike</small>																																			
<b>DELHI</b> <table border="1"> <thead> <tr> <th>Existing</th> <th>Revised</th> <th>MUMBAI since 2015</th> </tr> </thead> <tbody> <tr> <td>₹25 for first 2km</td> <td>₹25 for first 1.5km</td> <td>₹18 for first 1.5km</td> </tr> <tr> <td colspan="3">Subsequent fare</td> </tr> <tr> <td>₹8 per km</td> <td>₹9.5 per km</td> <td>₹12.2 per km</td> </tr> <tr> <td colspan="3">Waiting Charges</td> </tr> <tr> <td>First 15 mins free, ₹0.50 per minute</td> <td>₹0.75 per minute • While waiting • When stationary in traffic • Speed less than 6km/hr</td> <td>₹1.2 per minute • when vehicle is stationary or stuck in traffic or moving extremely slow</td> </tr> <tr> <td colspan="3">Night charges</td> </tr> <tr> <td>25% extra Between 11pm - 5am</td> <td>Same as existing</td> <td>25% extra between midnight - 5am</td> </tr> </tbody> </table>			Existing	Revised	MUMBAI since 2015	₹25 for first 2km	₹25 for first 1.5km	₹18 for first 1.5km	Subsequent fare			₹8 per km	₹9.5 per km	₹12.2 per km	Waiting Charges			First 15 mins free, ₹0.50 per minute	₹0.75 per minute • While waiting • When stationary in traffic • Speed less than 6km/hr	₹1.2 per minute • when vehicle is stationary or stuck in traffic or moving extremely slow	Night charges			25% extra Between 11pm - 5am	Same as existing	25% extra between midnight - 5am	<table border="1"> <tbody> <tr> <td>Green Park to Greater Kailash I 5 km - Distance</td> <td>₹49 ₹58</td> </tr> <tr> <td>Connaught Place to Mayur Vihar 10 kms - Distance</td> <td>₹89 ₹106</td> </tr> <tr> <td>New Delhi Railway Station to Nehru Place 12 kms - Distance</td> <td>₹105 ₹125</td> </tr> <tr> <td>Connaught Place to Janakpuri 16 kms - Distance</td> <td>₹137 ₹163</td> </tr> <tr> <td>New Delhi Railway Station to Rohini 22.5 kms - Distance</td> <td>₹189 ₹225</td> </tr> </tbody> </table>		Green Park to Greater Kailash I 5 km - Distance	₹49 ₹58	Connaught Place to Mayur Vihar 10 kms - Distance	₹89 ₹106	New Delhi Railway Station to Nehru Place 12 kms - Distance	₹105 ₹125	Connaught Place to Janakpuri 16 kms - Distance	₹137 ₹163	New Delhi Railway Station to Rohini 22.5 kms - Distance	₹189 ₹225
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Aman takes an auto from home at 11.10 pm to catch a train from New Delhi railway station. The traffic on the road was less, so no waiting charges needed to be paid and he reaches the station after travelling 15.5 km. Calculate the revised auto fare for the ride.

- A. Rs 124
- B. Rs 158
- C. Rs 172.25
- D. Rs 197.5

<b>Task Number</b>	4
<b>Unit Name</b>	Modelling & Balancing
<b>Item Type</b>	Selected response task
<b>IB Criteria</b>	Criterion D: Applying mathematics in real-life contexts D (iii)
<b>Level of the criteria</b>	6
<b>Full Credit (Full Score)</b>	• D. 197.5
<b>No Credit (No Score)</b>	• Any other response or missing response

## 10.1.4. Example of internal and external assessment tasks in Science

### 10.1.4.1. Internal assessment task and rubric

Grade	9
Subject	Science
Subtopics	Chemistry
Unit/Unit name	3/ Microscopic view of matter in the material world
Type of task	Project
Task description	<p>Document the historical evolution of the understanding of the structure of atoms and their progress to date. Divide the evolution into phases. For each evolution phase:</p> <ul style="list-style-type: none"><li>Analyse the questions/loopholes addressed.</li><li>Discuss the extent to which evolution helped in explaining the behaviour of an atom.</li></ul> <p>Summarise the work in the form of a project report.</p>
1. Instructions for students	<p>Create a project report on the historical evolution of the understanding of the structure of atoms and their progress to date.</p> <p>Divide the evolution into phases. For each evolution phase</p> <p>Task 1 a. Analyse the questions/loopholes addressed.</p> <p>Task 1 b. Discuss the extent to which evolution helped in explaining the behaviour of an atom.</p> <p>Summarise your work in the form of a project report. You can use the suggested structure.</p> <p>Before submitting the work self-assess your work with the rubric provided.</p>
2. Instructions for teachers	<p>The objective of the task is to deepen the understanding of the structure of the atom through inquiry mode. Provide the students with the structure of a project report. Make sure students have access to the library/internet. Share the assessment rubric with students along with the task.</p>
3. Resources required	
By students	Internet/library access, A4 sheets, pens
By teachers	Project report structure
4. Assessment criteria	<p>Criterion A: Knowing and understanding</p> <p>Criterion B: Inquiring and designing</p> <p>Criterion C: Processing and evaluating</p>

Score points	1-2	3-4	5-6	7-8
Criterion A: Knowing and understanding	<ul style="list-style-type: none"> <li>states the different theories of atomic structure</li> <li>interprets the theories to answer the questions given</li> </ul>	<ul style="list-style-type: none"> <li>outlines the different theories of atomic structure</li> <li>interprets theories and divides them into different phases of evolution</li> </ul>	<ul style="list-style-type: none"> <li>describes the different theories of atomic structure</li> <li>interprets the theories in his/her own words</li> <li>draws scientifically supported conclusion based on the theories</li> </ul>	<ul style="list-style-type: none"> <li>explains the different theories of atomic structure</li> <li>presents a critical review of the theories</li> <li>analyses and evaluates theories to draw scientifically supported conclusions</li> </ul>
Criterion B: Inquiring and designing	<ul style="list-style-type: none"> <li>states the problems or questions answered in each phase of the evolution</li> <li>outlines the possible hypothesis behind the theories in a phase</li> </ul>	<ul style="list-style-type: none"> <li>outlines problems or questions answered in each phase of the evolution</li> <li>formulate hypotheses using scientific reasoning behind the theories in a phase</li> </ul>	<ul style="list-style-type: none"> <li>describes problems or questions answered and unanswered in each phase of the evolution</li> <li>formulates and explains hypotheses using scientific reasoning</li> </ul>	<ul style="list-style-type: none"> <li>explains problems or questions answered and unanswered in each phase of the evolution</li> <li>formulates and explains hypotheses using correct scientific reasoning</li> </ul>

<p>Criterion C: Processing and evaluating</p>	<ul style="list-style-type: none"> <li>• collects and presents different theories of atomic structure</li> <li>• states how each phase added to previous knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• collects and present different theories of atomic structure in appropriate phases</li> <li>• correctly interprets how each phase added to previous knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• correctly collects, organizes and presents different theories of atomic structure in appropriate phases</li> <li>• correctly interprets how each phase added to previous knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• correctly collects, organizes, transforms and presents different theories of atomic structure in appropriate phases</li> <li>• accurately interprets and explains how each phase added to previous knowledge</li> </ul>
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### 10.1.4.2. Example of external assessment task and scoring

**Read the text below and answer the question.**

A news article says 'A lady received a letter written by her husband 70 years ago. The letter sealed in a glass bottle travelled 1200 km through the sea to reach her.'

Q14 Evaluate the consequences scientifically if the bottle had not been sealed.

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<b>Task Number</b>	14
<b>Unit Name</b>	The fluidity of movement
<b>Item Type</b>	Close constructed response
<b>IB Criteria</b>	Criterion B: Inquiring and designing B(ii)
<b>Level of the criteria</b>	8
<b>Full Credit (Full Score)</b>	Explanation is logical and involves scientific terminology For example <ul style="list-style-type: none"> <li>If bottle not sealed properly, water will get inside the bottle and principle of buoyancy is not applicable.</li> </ul>
<b>Partial Credit (Partial score)</b>	Explanation is logical but does not involves scientific terminology or Scientific terminology is used but no explanation is provided. <ul style="list-style-type: none"> <li>If bottle is not sealed properly, water will get inside the bottle and letter gets spoiled and bottle gets drowned.</li> <li>Principle of buoyancy/ Archimedes principle</li> </ul>
<b>No Credit (No Score)</b>	<ul style="list-style-type: none"> <li>Any other response or missing response</li> </ul>

## 10.1.5. Example of internal and external assessment tasks in social science

### 10.1.5.1. Example of internal assessment task and rubric

Grade	9
Type of task	Essay
Objective of the task	Investigate different forms of democracy
LO (can be multiple LOs)	Learners will be able to undertake an investigation to explore variations of democracy adopted by different countries
Unit	1
Subject domain (can be more than one)	Political science
Subtopics	Democracy
Task description	Compare and contrast the type of democracy in India and the United States of America.
1. Instructions for students	<p>“India and the United States of America are both democracies, yet they are different.”</p> <p>Investigate the statement by comparing and contrasting the two.</p> <p>Which of the two is closer to a true democracy. Justify your choice with reasons from your investigation.</p> <p>You can produce an essay of at most 750 words or a presentation (not more than 30 slides).</p> <p>Your work must have the following</p> <ol style="list-style-type: none"><li>1. Introduction</li><li>2. A brief description on the method you adopted for the investigation.</li><li>3. Any material used from other sources must be referenced</li><li>4. Conclusion after your investigation</li></ol> <p>Before you turn in your work.</p> <p>Please check your own work against the criteria to be sure that you have met all aspects mentioned in the criteria.</p>

	<p>Please check that your work is grammatically correct and that spellings are correct.</p> <p>You will be assessed based on the criteria mentioned at the end of the document.</p> <p>The last date for submission of this task is DD/MM/YYYY (non-negotiable)</p> <p>In case you are not able to submit your work on time please discuss with your teacher to find an alternate date of submission to avoid penalty of marks for late submission or no submission</p>
2. Instructions for teachers	Take print out of the assessment task. Or share the “ <b>Instructions for students</b> ” online.
3. Resources required	<p>NIL by teacher</p> <p>Students will need access to internet and tab/word processor</p>
By students	Pen and paper/ word processor and internet.
By teachers	Print outs of the assessment criteria
4. Assessment criteria	<p>Knowing and Understanding (Criterion A)</p> <p>Using a range of terminology associated with democracy</p> <p>Knowledge and understanding of democracy through descriptions and explanations</p> <p>Investigating (Criterion B)</p> <p>Formulate an action plan to investigate the democracies of the countries</p> <p>Collecting information about democracies</p> <p>Evaluate the results of investigation</p> <p>Communicating (Criterion C)</p> <p>Communicate ideas appropriately</p> <p>Structure of information presented</p> <p>Create a reference list</p> <p>Thinking Critically (Criterion D)</p> <p>Summarising information to make valid, well-supported arguments</p> <p>Recognise different perspectives</p>



Task assessment criteria (RUBRIC)

Criteria	Score 0	Score 1	Score 2	Score 3
Knowing and Understanding (Criterion A)				
Using a range of terminology associated with democracy	terminology not used correctly	sometimes terminology used correctly	terminology always used correctly	
Knowledge and understanding of democracy through descriptions and explanations	work does not show any understanding of democracy	work shows some understanding through definitions of terms from the textbook only	work shows some terminology used from outside of the textbook along with its use in the work	use of extensive terminology throughout the text is visible
Investigating (Criterion B)				
Formulate an action plan to investigate the democracies of the countries	no plan of action to investigate provided or irrelevant plan provided	Relevant plan is provided		
Collecting information about democracies	irrelevant information collected	sources of information are less than ten	More than ten sources of information used to collect information	
Evaluate the results of investigation	No evidence of evaluation done to arrive at conclusion	Some evaluation done to arrive at conclusion	well supported evidence of evaluation done to arrive at conclusion	
Communicating (Criterion C)				
Communicate ideas appropriately				
Structure of information presented	ideas are not presented in a logical order	some ideas are presented in a logical order, but the examiner needs to sift	clear logical presentation of ideas that are easily understood	

		through a lot of work to understand the ideas		
Create a reference list	No referencing of sources	less than half of the sources are referenced	some of the sources have not been referenced	All sources referenced
Thinking Critically (Criterion D)				
Summarising information to make valid, well-supported arguments	No summarisation done	arguments available but not supported by justifications	arguments available and some are supported by justifications not from the materials presented	All arguments are well supported by justifications from the materials presented
Recognise different perspectives	No differences presented	Differences presented but not from the materials submitted	Differences are presented from the materials submitted	

DRAFT

### 10.1.5.2. Example of external assessment tasks and scoring

Source A: Birth of the Weimar Republic

Germany, in the early years of the twentieth century, fought the First World War (1914-1918) alongside the Austrian empire and against the Allies (England, France and Russia.)

All joined the war enthusiastically in 1914, hoping to gain from a quick victory. Little did they realise that the war would stretch on, eventually draining Europe of all its resources. Germany made initial gains by occupying France and Belgium. However, the Allies, strengthened by the US entry in 1917, won, defeating Germany and the Central Powers in November 1918. The Emperor of Germany had to leave the throne and give way for establishment of democratic constitution.

Source B: The Years of Depression

The Great Depression started in the United States of America, it started with a huge fall in the stock prices that began around September 4, 1929. It was a worldwide news at the time, and it followed with an event that came to be known as Black Tuesday, wherein the stock market crashed on October 29, 1929. This event was marked with the collapse of the US Economy.

This decline in the U.S. economy was the major factor that pulled down economies of most other countries at first; then, the internal weaknesses or strengths in each country made conditions worse or better for themselves. Most of the countries undertook measures to address this depression in various ways like setting up of relief programs, and they also underwent some sort of political turmoil.

Worldwide, the gross domestic product (GDP) fell by about 15% between 1929 and 1932.

According to estimates, the German economy was the worst hit by the economic crisis. Its industrial production in 1932 was reduced to 40 percent of the level it was at in 1929.

Source C: The Nazi World view (an extract from the book 'Mein Kampf' by Adolf Hitler 1925)

'In an era when the earth is gradually being divided up among states, some of which embrace almost entire continents, we cannot speak of a world power in connection with a formation whose political mother country is limited to the absurd area of five hundred kilometres.'

Q6	<p>Here is a statement in Source A.</p> <p>"All joined the war enthusiastically in 1914, hoping to gain from a quick victory."</p> <p><b>Analyse</b> the Source A to identify who does the word 'All' refer to in above statement.</p> <p>यहां स्रोत ए में एक बयान दिया गया है।</p> <p>"सभी 1914 में उत्साह के साथ युद्ध में शामिल हुए, इस उम्मीद में कि जल्दी से जीत हासिल की जाएगी।"</p> <p>स्रोत A के आधार पर, उपरोक्त कथन में 'सभी' शब्द को कौन संदर्भित करता है।</p>

	A	People	लोग
	B	political parties	राजनीतिक दल
	C	countries	देश
	D	continents	महाद्वीप
Q7	Based on source A, <b>discuss</b> the important political consequence of the defeat of Germany in the First World War. स्रोत A के आधार पर प्रथम विश्व युद्ध में जर्मनी की हार के महत्वपूर्ण राजनीतिक परिणामों की चर्चा कीजिए।		
		Please write your answer in the space below.	
		<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	

Scoring guide

Item No	Type	Criterion	Strand	Level	Item descriptor	Response Description	Score	Sample response
6	MCQ	A	ii	6	Analyses the text to draw conclusions about the reference to certain groups	Option C: countries	1	
7	CR	B	iv	4	Identifies simple descriptions of examples in context	<p>Student answer focusses on one of the two points mentioned below (directly stated or implied)</p> <ul style="list-style-type: none"> <li>• Establishment of a democracy</li> <li>• Germany was no more a monarchy</li> </ul>	1	<p>Example 1</p> <p>A democracy came into existence</p> <p>Example 2</p> <p>The ruler of Germany abdicated his throne for a democracy</p>
						<p>Please note: Student response needs to show one of the two point mentioned for full credit (No extra credit to be given if both points are mentioned)</p> <p>Student response does not have mention (explicitly stated or implied) of any point provided for full credit</p> <p>Example of No credit</p> <p>The rule changed</p> <p>The king left Germany</p>		

## 10.2. Schema of assessment

### 10.2.1. Test design adopted by DBSE in ASoSE schools (grade 9) in academic year 2021-22

Hindi

Language Acquisition - Hindi (Time - 150 minutes)			
Tasks	Content	Number/Type of questions	Alignment with IB criteria
Task 1: Analysing—shorter response questions	Based on unseen texts	15 MCQs 3 Units (1 text + 5 MCQs)	<b>Criterion B</b> (Comprehending written and visual text)
Task 2: Analysing—extended comparison question	Grammar	10 MCQs	<b>Criterion D</b> (Using language in spoken and written form)
Task 3: Analysing—extended comparison question	Based on texts in the textbook	5 short response items (4-5 sentences)	<b>Criterion B</b> (Comprehending written and visual text) <b>Criterion C</b> (Communicating in response to spoken, written and visual text)
Task 4: Producing non-literary text	Independent writing task	1 extended response - formal letter (up to 250 words)	<b>Criterion C</b> (Communicating in response to spoken, written and visual text) <b>Criterion D</b> (Using language in spoken and written form)
Task 5: Producing non-literary text	Independent writing task	1 extended response - informal letter (up to 250 words)	<b>Criterion C</b> (Communicating in response to spoken, written and visual text) <b>Criterion D</b> (Using language in spoken and written form)
	Total	27 items (21 MCQ + 6 CRT)	<b>Criterion B</b> (Comprehending written and visual text) <b>Criterion C</b> (Communicating in response to spoken, written and visual text) <b>Criterion D</b> (Using language in spoken and written form )

Overall Weightage
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Unit 2 - 40-60%
Unit 3 - 40-60%

English

Language and Literature - English (Time - 150 minutes)			
Tasks	Content	Number/Type of questions	Alignment with IB criteria
Task 1: Analysing—shorter response questions	Based on unseen texts	15 MCQs (3 Units - 1 text + 5 MCQs)	Criterion A (Analysing)
Task 2: Analysing—extended comparison question	Based on texts in the textbook	5 short response items (4-5 sentences)	<b>Criterion A</b> (Analysing) <b>Criterion D</b> (Using language)
Task 3: Analysing—extended comparison question	Based on texts in the textbook	1 extended response	<b>Criterion A</b> (Analysing) <b>Criterion B</b> (Organizing) <b>Criterion C</b> (Producing Text)
Task 4: Producing non-literary text	Independent writing task	1 extended response - diary writing/ 1 biographical sketch	<b>Criterion B</b> (Organizing) <b>Criterion C</b> (Producing Text) <b>Criterion D</b> (Using language)
Task 5: Producing non-literary text	Independent writing task	1 extended response - formal letter	<b>Criterion B</b> (Organizing) <b>Criterion C</b> (Producing Text) <b>Criterion D</b> (Using language)
	Total	23 items (15 MCQ + 8 CRT)	<b>Criterion A</b> (Analysing) <b>Criterion B</b> (Organizing) <b>Criterion C</b> (Producing Text) <b>Criterion D</b> (Using language)

Overall Weightage
Unit 2 - 40-60%
Unit 3 - 40-60%

Mathematics (Time - 150 minutes)			
Tasks	Content	Number/Type of questions	Alignment with IB criteria
Task 1: Knowing and understanding	Context units based on mathematical and real-life scenario	13 questions (4 - 5 Units - 7 SRT + 6 CRT)	<b>Criterion A</b> (Knowing and understanding)
			<b>Criterion C</b> (Communicating)
Task 2: Applying mathematics in real-life contexts	Context units based on real life scenario	14 questions (4 - 5 Units - 10 SRT + 10 CRT)	<b>Criterion D</b> (Applying mathematics in real-life contexts)
			<b>Criterion C</b> (Communicating)
Task 3: Investigating patterns	Context units based on mathematical and real-life scenario	13 questions (4 - 5 Units - 7 SRT + 6 CRT)	<b>Criterion B</b> (Investigating patterns)
			<b>Criterion C</b> (Communicating)
		Overall Weightage	
		Unit 1 - 20% Unit 2 - 40% Unit 3 - 40%	

Science (Time - 150 minutes)			
Tasks	Content	Number/Type of questions	Alignment with IB criteria
Task 1: Knowing and understanding	Context units based on scientific and real life scenario	10 questions (2 - 3 Units - 5 SRT + 5 CRT)	<b>Criterion A</b> (Knowing and understanding)
Task 2: Investigation skills	Context units based on scientific and real-life scenario	20 questions (4 - 5 Units - 10 SRT + 10 CRT)	<b>Criterion B</b> (Inquiring and designing) <b>Criterion C</b> (Processing and evaluating)
Task 3: Applying science	Context units based on scientific and real-life scenario	10 questions (2 - 3 Units - 5 SRT + 5 CRT)	<b>Criterion D</b> (Reflecting on the impacts of science)
		Overall Weightage	
		Unit 1 - 20% Unit 2 - 40% Unit 3 - 40%	



Social Sciences (Time - 150 minutes)			
	No of questions		
		CRT	
Description	SRT	Short response	Extended response
<p>some of the discrete skills involved in completing the investigating task include:</p> <ul style="list-style-type: none"> <li>• formulating and justifying research questions</li> <li>• formulating action plans, or sections of an action plan (identification of media, stakeholders, research methods, sources of information and presentations)</li> <li>• evaluating the process or results of an investigation.</li> </ul> <p>Students are also asked to demonstrate knowledge and understanding, either from their course or from information presented in source material.</p>	3-4	3-4	3-4
<p>requires students to engage creatively with a given topic or context, presenting information and ideas effectively using an appropriate style for the audience and purpose and in a way that is appropriate to the specified format. Types of response could include:</p> <ul style="list-style-type: none"> <li>• creative writing</li> <li>• blog</li> <li>• article</li> <li>• letter</li> <li>• presentation</li> <li>• poster/infographic</li> <li>• speech.</li> </ul>	3-4	3-4	3-4
<p>assesses students' ability to think about and discuss issues, arguments and perspectives through structured questions culminating in an extended piece of writing. Students are also asked to demonstrate knowledge and understanding, either from their course or from information presented in source material</p>	3-4	3-4	3-4
	10	10	10

**10.2.2. Test design adopted by DBSE in ASoSE schools (grade 11) in academic year 2021-22**

Physics (Time - 180 minutes)				
Section	Description	Number/Type of questions	Assessment Criteria	Section marks
Section 1	Tasks based on authentic scenarios	10 SRT + 5 CRT	Knowledge and Understanding, Application and HOTS	25
Section 2	Short response tasks	11 CRT	Knowledge and Understanding, Application and HOTS	30
Section 3	Extended response tasks	3 CRT	Knowledge and Understanding, Application and HOTS	15
	Total	29		
	Max marks	70		

Chemistry (Time - 180 minutes)				
Section	Description	Number/Type of questions	Assessment Criteria	Section marks
Section 1: Case study	Based on authentic scenario	5 SRT + 10 CRT (mix of SR & ER) (3 Units)	Knowledge - 5MCQ, Understanding, - 5 CRT, Skill - 5 CRT	15
Section 2: Short answer	Based on textbook chapters	10 CRT	Understanding -2 CRT, Skill - 4 CRT and Application - 4 CRT	30
Section 3: Long answer	Open ended questions	5 CRT	Skill - 2 CRT; Application - 3 CRT	25
	Total	30 items (5 SRT + 25 CRT)		
	Max marks	70		

Math (Time - 180 minutes)				
Section	Description	Number/Type of questions	Assessment Criteria	Section marks
Section 1	Tasks based on authentic scenarios	11 SRT + 4 CRT	Knowledge and Understanding, Application and HOTS	30
Section 2	Short response tasks	11 CRT	Knowledge and Understanding, Application and HOTS	30
Section 3	Extended response tasks	4 CRT	Knowledge and Understanding, Application and HOTS	20
	Total	30		
	Max marks	80		

Language and Literature - English (Time - 180 minutes)			
Tasks	Description	Number/Type of questions	Assessment Criteria
Task 1: Analysing—shorter response questions	Based on unseen texts	9 MCQs + 6 CRT (mix of SR & ER) (3 Units)	Analysis, Synthesis and Evaluation Knowledge and Understanding
Task 2: Analysing—extended comparison question	Based on texts in the textbook	5 short response items (4-5 sentences) 1 extended response (150-200 words)	Analysis, Synthesis and Evaluation Knowledge and Understanding Communicate
Task 4: Producing non-literary text	Independent writing task	1 short response (50-100 words) 2 extended response (200-250 words)	Communicate
	Total	23 items (9 MCQ + 14 CRT)	

### 10.3. List of suggested tasks for internal assessment

1. Analysis and reflection.
2. Compositions – musical, physical, artistic
3. Creating podcasts
4. Creation of solutions of products in response to problems
5. Developing a website
6. Drawings
7. E-portfolios of coursework
8. Essays
9. Examinations questionnaires
10. Group discussions
11. Hands-on experimentation
12. Including a compulsory e-portfolio for the personal project.
13. Investigations
14. Making a documentary
15. On-screen examinations, with each exam lasting two hours.
16. Open-ended
17. Organized debates
18. Peer reviews
19. Performances
20. Presentations – verbal (oral or written), graphic (through various media)
21. Problem solving activities
22. Quizzes or tests
23. Research
24. Research projects
25. Self-assessment
26. Spontaneous responses
27. Venn diagrams
28. Verbal presentations in front of peers
29. Visualisation of understanding
30. Writing a song