



Assessment Documentation

For Students' Learning in Mathematics

Grades (5–12) – Bilingual Private Schools



August 2023

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1 Introduction

The Ministry of Education stresses the importance of teacher planning and preparation for implementing the formative and summative assessment tools throughout the academic year 2023/2024. The teachers need to carefully plan and prepare assessment tools that align with the teaching methods being employed traditional face-to-face teaching methods or on-line learning.

The aim of assessment is to provide useful information about students' learning. Therefore, assessment focuses on the learning outcomes which students are expected to achieve. Assessment of students' achievement of these learning outcomes is based on the conscious and systematic gathering of information. A wide variety of sources of information are available. Each of these sources has its own strengths and weaknesses, so to arrive at a properly balanced picture, teachers should make use of as many different sources as possible.

2 Definitions

Continuous Assessment

Assessment that is conducted in schools, by teachers throughout the school year, rather than just at the end. Provides a fairer, more balanced picture of student's attainment. Also, allows the inclusion of skills (e.g. communication) which are difficult (practically) to assess by means of formal testing. It can be used for both formative and summative purposes.

Summative Assessment

Assessment of student learning. Its purpose is to measure and report on standards of learning. Typically done by awarding marks and grades. Also, involves reporting to the Ministry and to parents.

Formative Assessment

Assessment for student's learning. Its purpose is to improve students' learning. Typically done by giving feedback through different tools such as of tests, quizzes, homework, oral work, projects, etc.

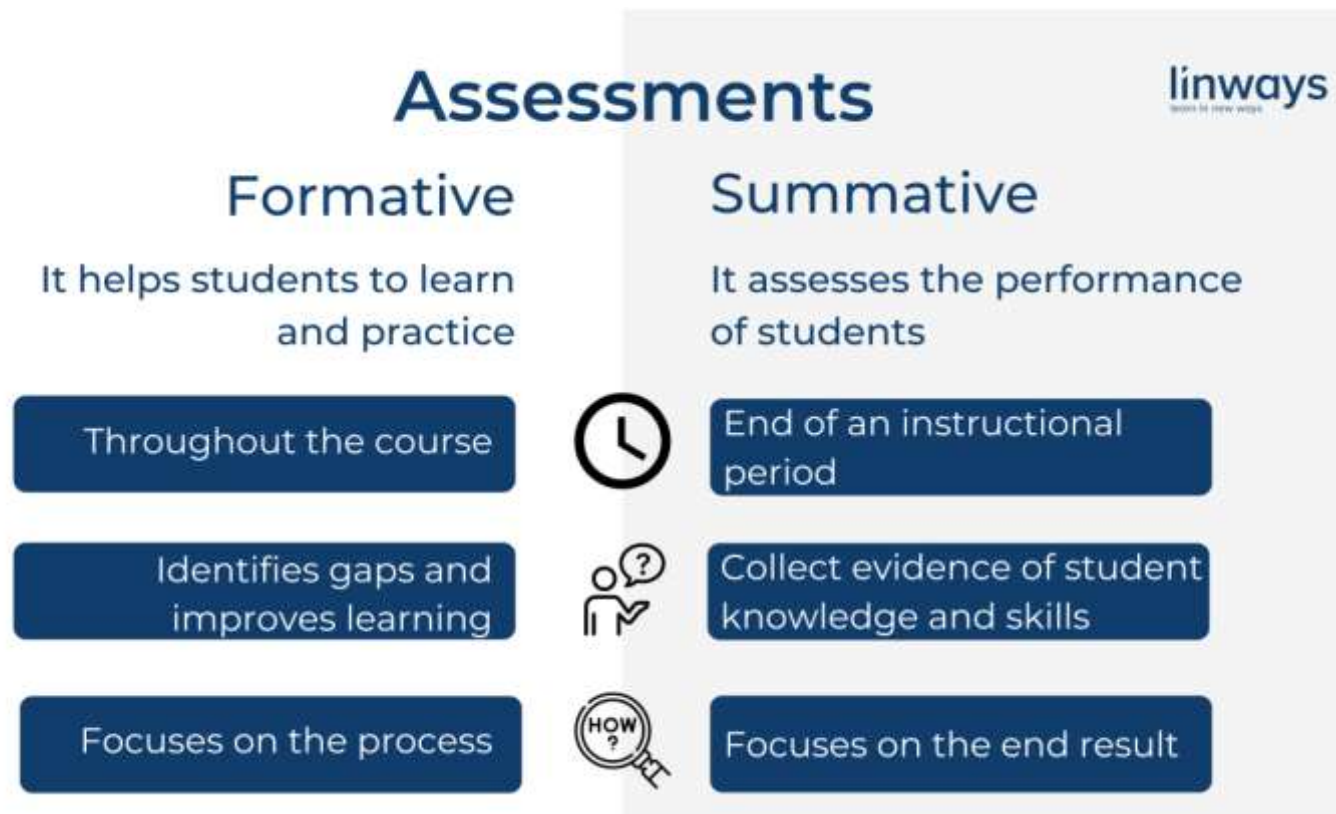
E-Assessment

Defined as: the process of employing information networks, computer equipment, educational software and materials from multiple sources, as well as using assessment to collect and analyze student responses, which in return help teachers to discuss the impacts of programs and activities on educational process and define them in order to reach a codified judgment based on quantitative or qualitative data related to academic achievement.



By using a combination of formative and summative assessments, teachers can ensure that students are meeting the learning goals and objectives and can provide valuable information to guide instruction and support student learning. In addition, it will prepare students for the current industry requirements.

The brief differences between formative and summative assessments are showing in the following figure¹:



¹ [Formative and summative assessments in higher education: an overview. \(linkedin.com\)](https://www.linkedin.com/pulse/formative-and-summative-assessments-higher-education-overview/)

3 Formal Moderation

Moderation is defined as the follow-up process to ensure the proper application of continuous assessment tools, and the credibility of the marks given to students considering the technical standards and specifications contained in the student learning assessment documents. Moderation will be applied in this academic year in accordance with the previous objectives and mechanisms set out in the general document for the evaluation of students' learning.

4 Performance Reports and Certificates

The student's performance level is monitored continuously throughout the year as follows:

Grades	Report
(5-12)	<ul style="list-style-type: none"> ✓ A descriptive report on the student's performance in the middle of each semester. ✓ Student grades are revealed at the end of each semester. ✓ Successful learners in the 10th grade are awarded a certificate (General Study of Basic Education). ✓ Successful learners in the 12th grade are awarded the "General Education Diploma" and its level.

5 Assessment Objectives

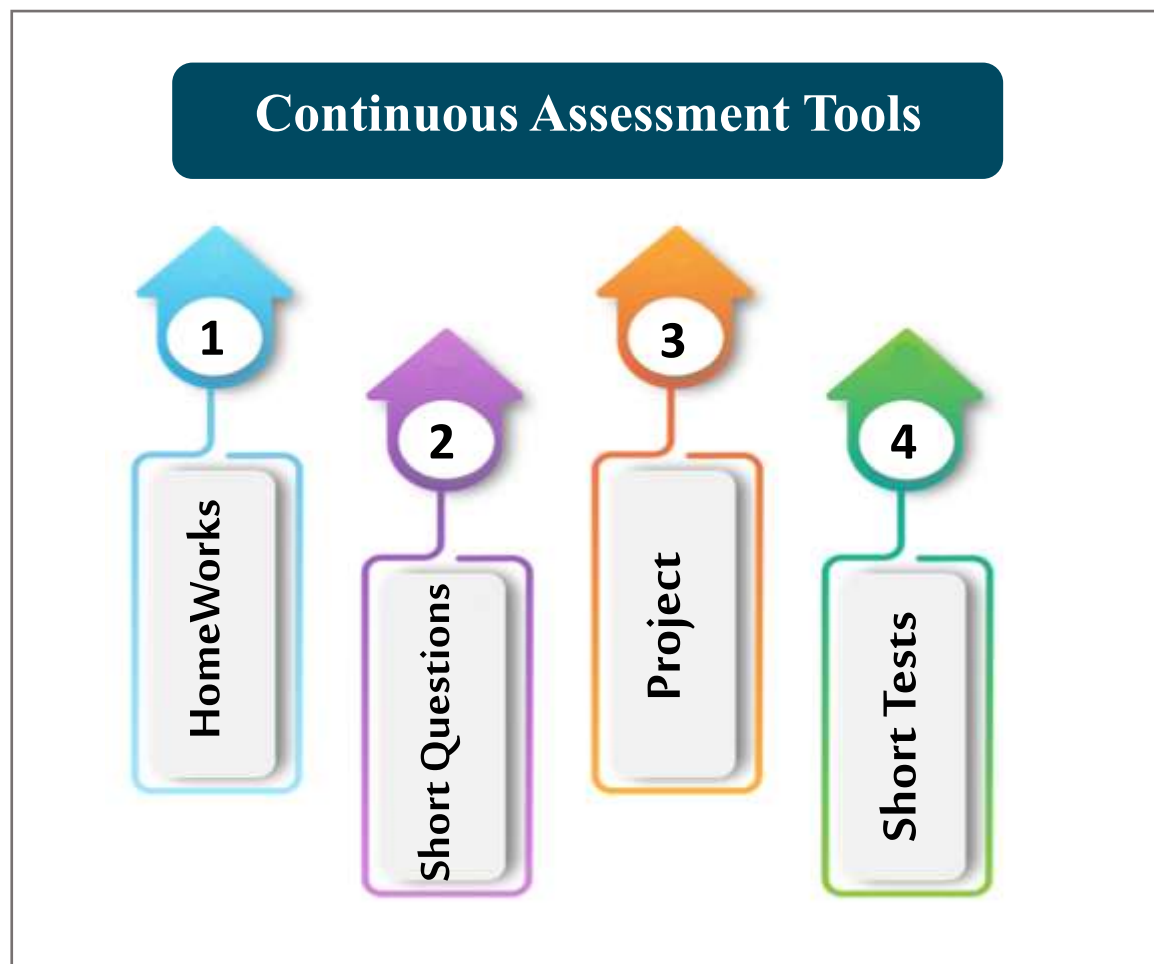
When achieving learning goals/objectives, students will be able to acquire assessment goals, and these goals can be organized into three groups: knowledge, application, and reasoning.

The abilities within these three objectives include the necessary processes in the teaching of mathematics subjects that are taught at this stage, while at the same time representing the basic skills that the student is required to acquire by studying the course in any class and thus form the basis for assessing the students' performance.



6 Tools of Summative Continuous Assessment

This Section provides information and explanation regarding the various tools and techniques, which can be used for assessment purposes in Mathematics during the academic year 2023\2024:

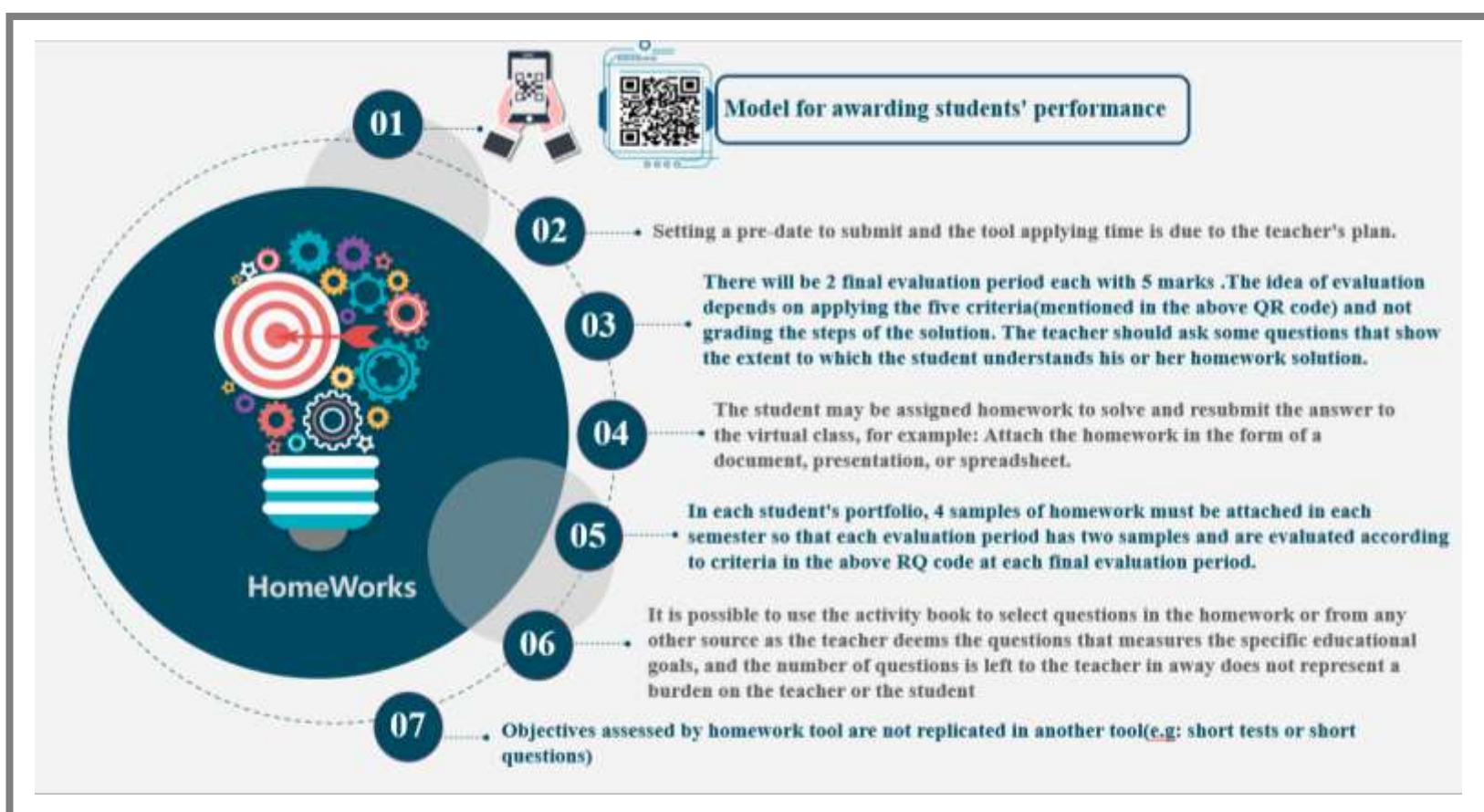


7 Specification of Summative Continuous Assessment Tools

7-1: HomeWorks

Defined as one of the assessment tools that assigned to students by their teachers to be done in their spare time at school or home. The homework must be planned and the method of student's performance should be clear through the instructions provided by the teacher, and the teacher must focus on the role of homework in learning and the appropriate amount of homework for his\her students, and the correction of the homework should be accompanied by feedback and appropriate guidance to help the student build, configure and modify his knowledge and skills.

Tool Application



Customize Marks

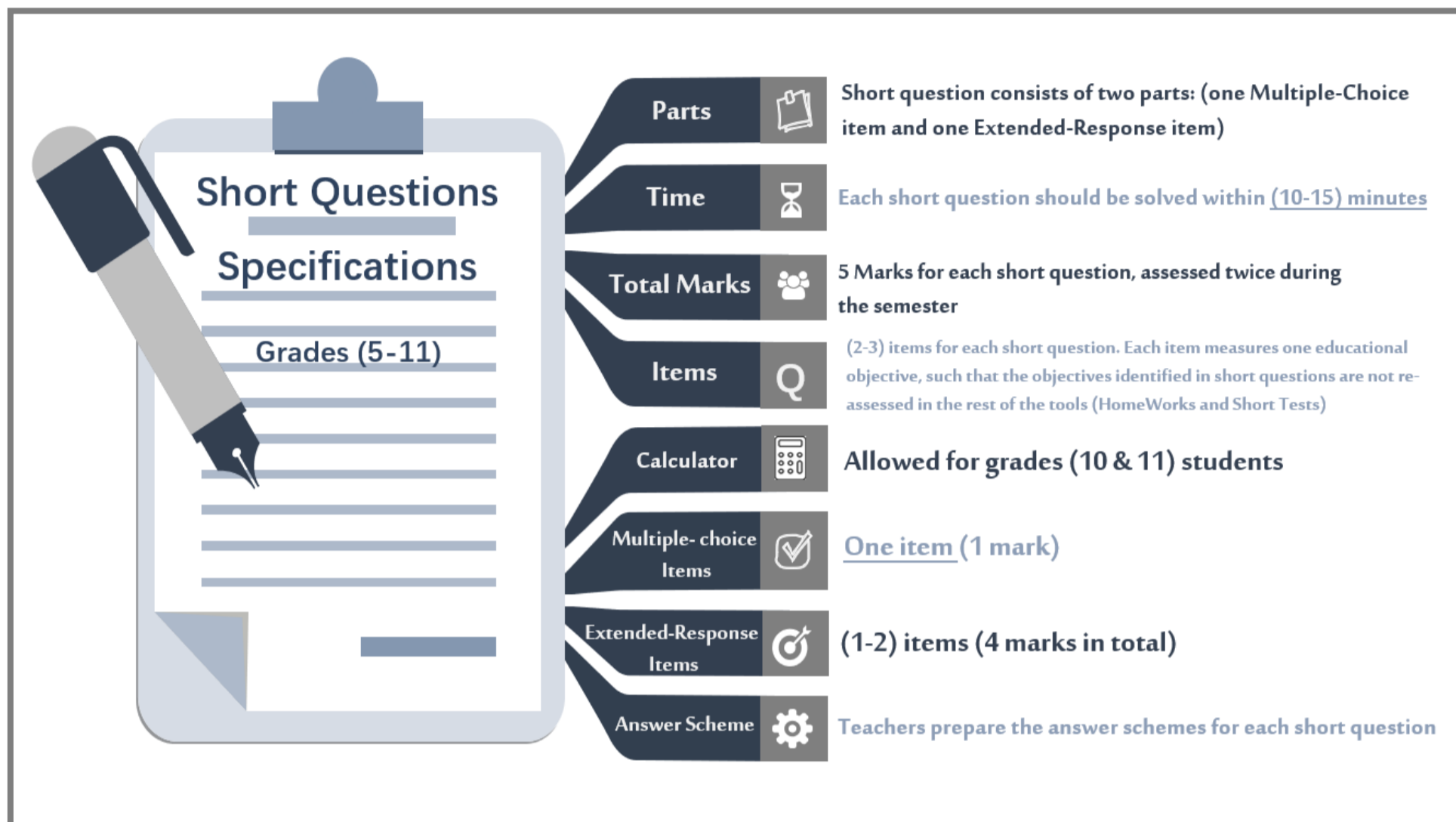
The homework marks are assessed as a summative continuous assessment tool through each semester as follows:

Grades	Number of periods	Homework marks
(5-12)	2	Total: 10 marks

7-2: Written Short Questions

An evaluation tool that is used continuously during class to ensure that student has achieved the required educational outcomes, followed by appropriate feedback.

Written Short Question Specification for Grades (5-11)



Customize Marks

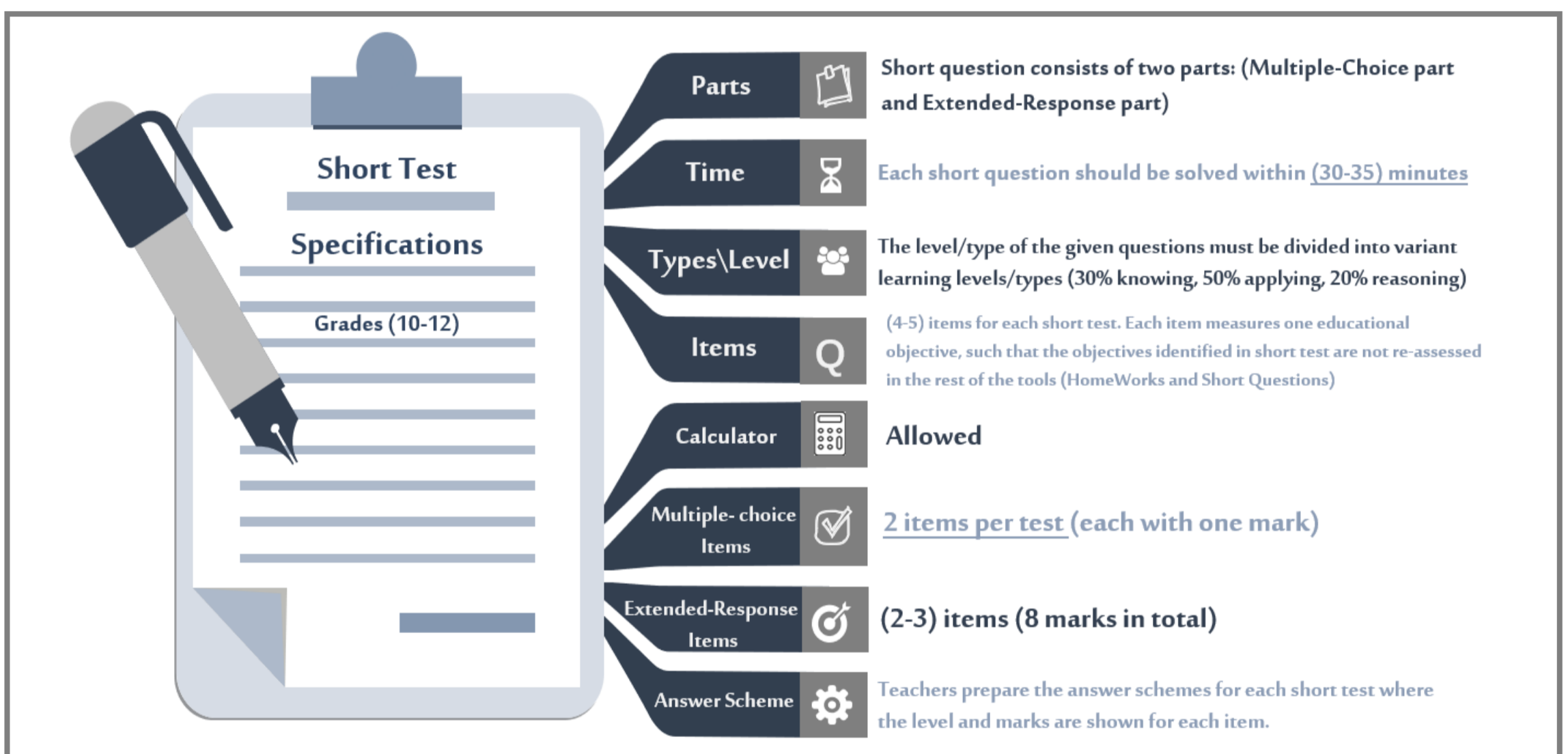
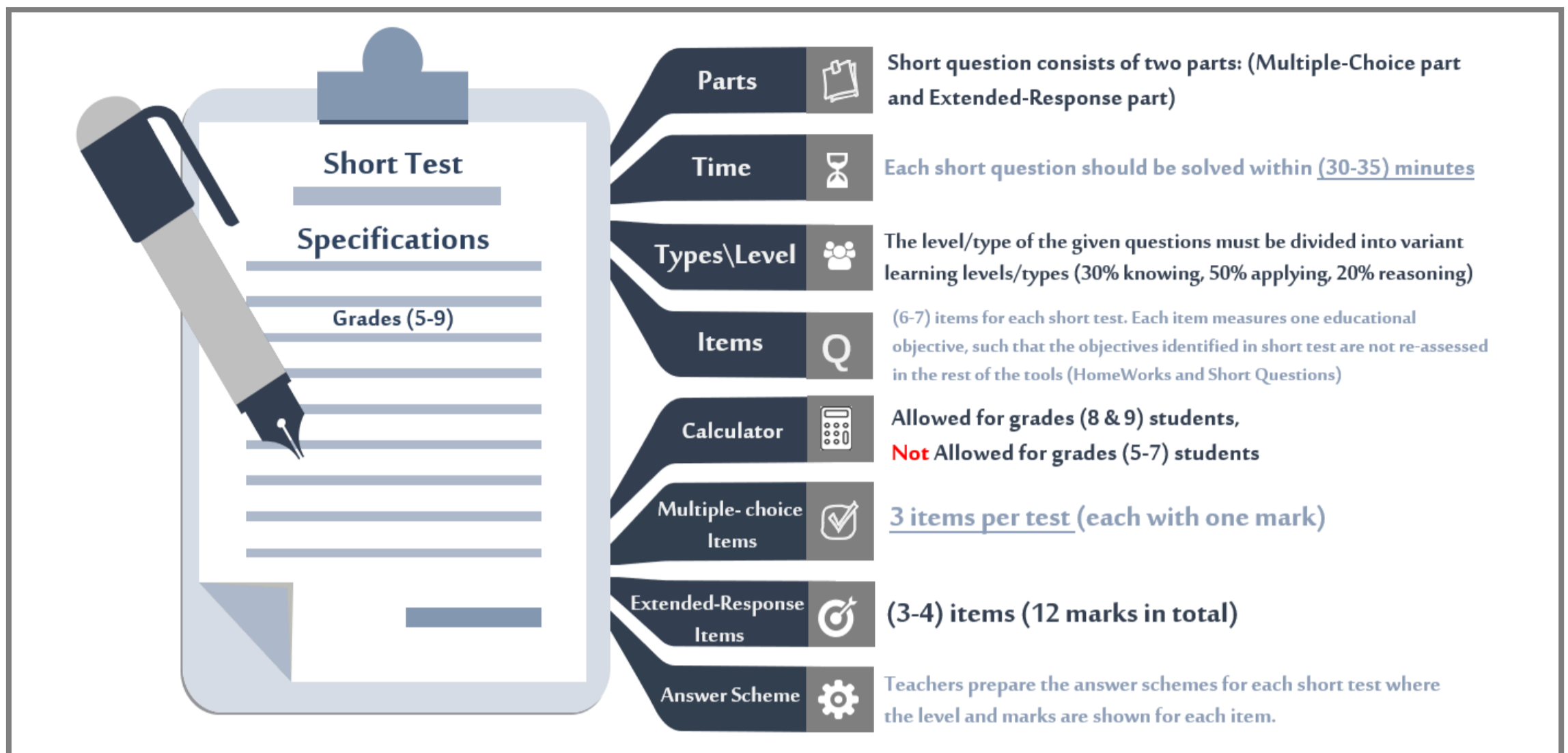
The short question marks are distributed as a summative continuous assessment tool as follows:

Grades	Number of periods	Homework marks
(5-11)	2	Total: 10 marks
12	x	x

7-3: Short Test

Defined as one of the assessment tools that prepared by the teacher during the year applied at the end portion of the content. The feedback should be given to the students directly after the short test.

Written Short Test Specification for Grades (5-12)



Customize Marks

The short test marks are distributed as a summative continuous assessment tool as follows:

Grades	Number of periods	Short Test
(5-9)	2	30 marks and the students are assessed twice during semester each with 15 marks
(10-12)		20 marks and the students are assessed twice during semester each with 10 marks

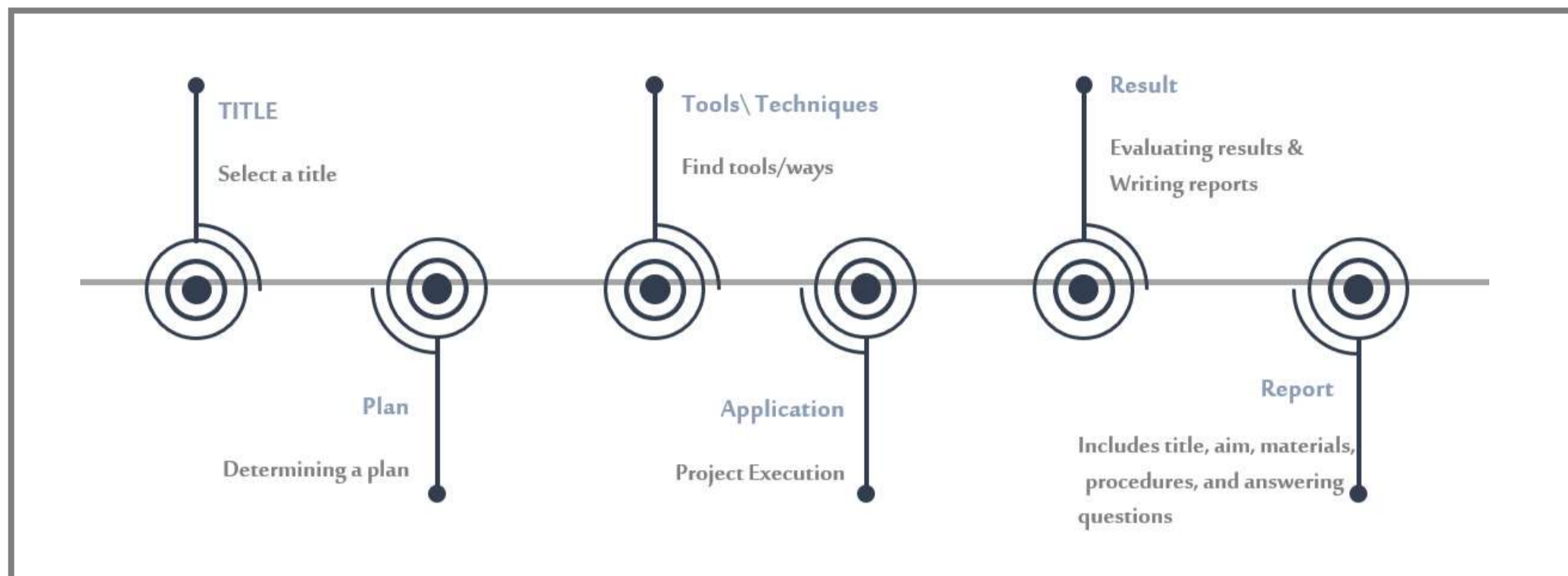
Notes

- The test grand total must be clearly shown on the student paper.
- Items in the question paper should be arranged ascending order according to level so that easy knowing items come first, ending with hard reasoning items.
- The question paper and its answer key must be prepared for each short test.
- Marks must be as a whole number with or without half only (like 5 and 5.5 are accepted but 5.25 is not accepted).

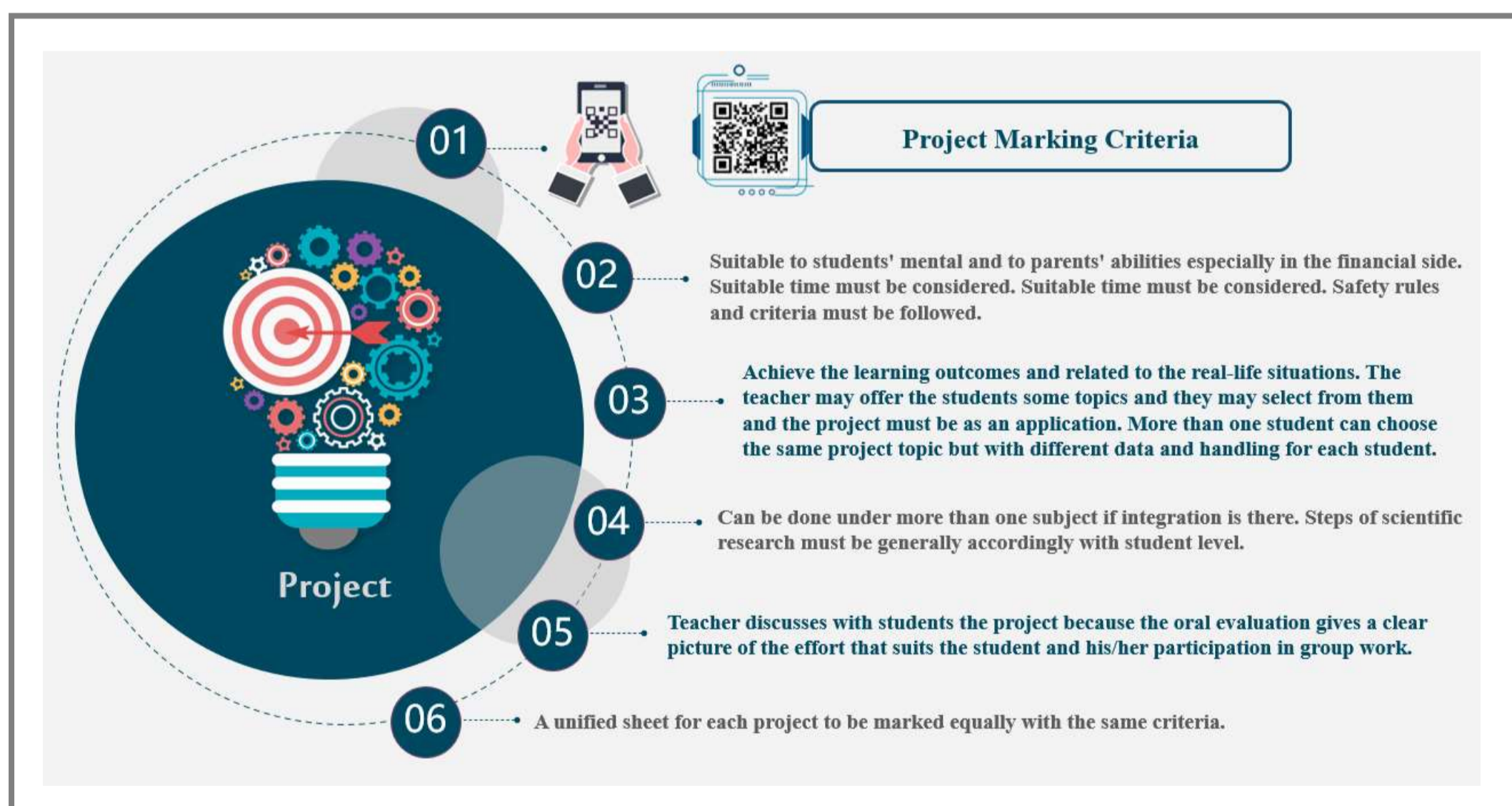
7-4: Project

School Project is one of the assessment tools that depend on investigation and practical skills to reach scientific results & explanations can be done by one student or more.

Project Steps



Project Specification



Customize Marks

The project marks are distributed as a summative continuous assessment tool as follows:

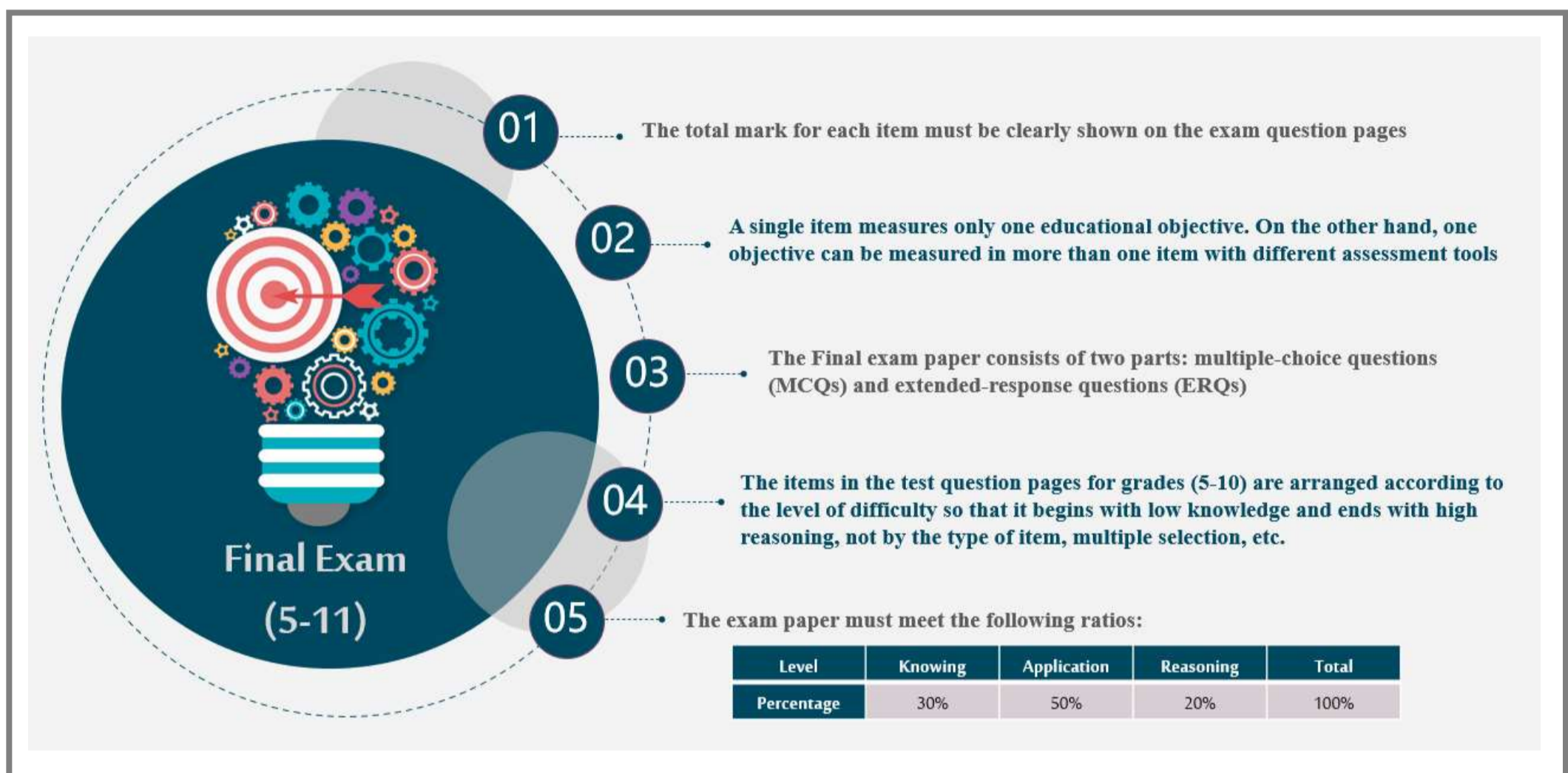
Grades	Number of periods	Project Marks
(5-9)	Once during the semester	10 marks

8 Final Exam for Grades (5-11)

Defined as one of the assessment tools that are administered at the end of each semester. Final exam is valued according to the following table:

Grade	(5-7)	8 & 9	10 & 11
Calculators	Not allowed	Allowed	Allowed
Weight	40%		60%
Marks	40		60
Prepared by	Schools		Schools
Duration	1h 30min		2h 30min

Specification of Final Exam Paper for The End of The Academic Year for Grades (5-11)



Distribution of marks for grades (5-11) on final exam paper questions

Grades		(5-9)	(10-11)
Marks	Question 1 (MCQ)	8 (8 items)	12 (12 items)
	Question 2 (ERQ)	12	12
	Question 3 (ERQ)	10	12
	Question 4 (ERQ)	10	12
	Question 5 (ERQ)	-	12
	TOTAL	40	60

Ratios of assessment items and distribution of marks are considered when the questions are prepared in the final exam paper

Grades	Level			Total
	Knowledge (30%)	Application (50%)	Reasoning (20%)	
(5-9)	12	20	8	40
(10-11)	18	30	12	60

9 Final Exam Specification for Grade (11)

Final Exam Specification for Grade 11 (Advance Math)

1st Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
Quadratics (PM1*)	16%	2	8	10
Functions (PM1*)	17%	2	8	10
Algebra (PM2&3*)	25%	3	12	15
Differentiation (PM1*)	25%	3	12	15
Representing of Data (P&S1*)	17%	2	8	10
TOTAL	100%	12	48	60

2nd Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
Coordinate Geometry (PM1*)	12%	1	6	7
Circular Measure and Trigonometry (PM1*)	21%	3	10	13
Series (PM1*)	17%	2	8	10
Integration (PM1*)	25%	3	12	15
Probability, Permutations and Combinations (P&S1*)	25%	3	12	15
TOTAL	100%	12	48	60

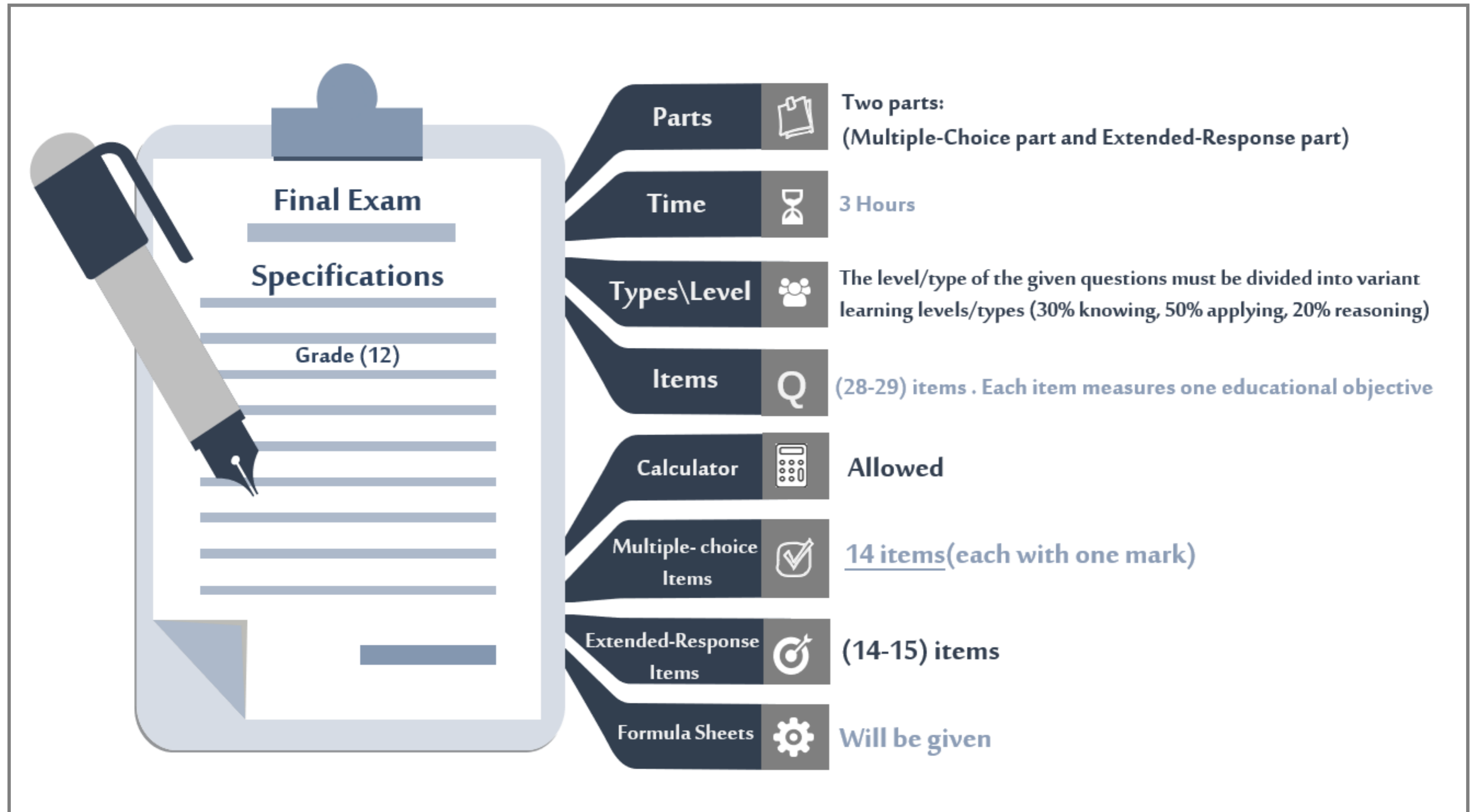
Final Exam Specification for Grade 11 (Basic Math)

1st Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
Algebraic Expressions	25%	3	12	15
Quadratics	33%	4	16	20
Equations and Inequalities	25%	3	12	15
Straight Line Graphs	17%	2	8	10
TOTAL	100%	12	48	60

2nd Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
Trigonometric Ratios	33%	4	16	20
Radians	13%	2	6	8
Differentiation	33%	4	16	20
Integration	21%	2	10	12
Trigonometric Ratios	33%	4	16	20
TOTAL	100%	12	48	60



11 Final Exam Specification of the final Exam for Grade (12)

Final Exam Specification for Grade 12 (Advance Math)

1st Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
Logarithms and Exponential Functions (PM2&3*)	25%	4	14	18
Trigonometry (PM2&3*)	33%	5	18	23
Differentiation (PM2&3*)	25%	3	14	17
Discrete Random Variables (P&S1*)	17%	2	10	12
TOTAL	100%	14	56	70

2nd Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
Integration (PM2&3*)	33%	5	18	23
Vectors (PM2&3*)	17%	2	10	12
Complex Numbers (PM2&3*)	25%	4	14	18
Normal Distribution (P&S1*)	25%	3	14	17
TOTAL	100%	14	56	70

Final Exam Specification for Grade 12 (Basic Math)

1st Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
Algebraic methods	29%	4	16	20
Exponential and Logarithms	25%	4	14	18
Differentiation	17%	2	10	12
Measures of location and spread	29%	4	16	20
TOTAL	100%	14	56	70

2nd Semester

Unit	Weight (%)	Multiple-choice Questions	Extended-response Questions	Total
		Marks	Marks	
The Binomial Expansion	25%	4	14	18
Sequence and Series	29%	4	16	20
Integration	21%	3	12	15
Representations of data	25%	3	14	17
TOTAL	100%	14	56	70

12 Mark Distribution for The Assessment Tools

Assessment Tools	Marks			Remarks
	Grades (5-9)	Grades (10-11)	Grade 12	
Homework	10	10	10	<ul style="list-style-type: none"> ✓ To be assessed consciously using specific criteria assign (5 marks) for each period during the academic year; taking: ✓ The total of two periods for grades (5-12)
Project	10	-	-	<ul style="list-style-type: none"> ✓ To be assessed consciously and the total marks distribute using specific criteria and the does not divide among the units ✓ Teachers should inform the students about the working scheme and the submission date to assists and record the final mark once.
Short Questions	10	10	-	<ul style="list-style-type: none"> ✓ Two short questions per semester.
Short Test	30	20	20	<ul style="list-style-type: none"> ✓ Two short tests per semester.
Final Exam	40	60	70	<ul style="list-style-type: none"> ✓ To be prepared -according to specifications- by the end of each semester: by the school for grades (5-11) ✓ From the Ministry for grade (12)

*Note: The Total mark for the homework and project does not distribute among the units

Appendices



Assessment Objectives in Mathematics



Model for awarding students' marks - homework



Project Marking Criteria



The specifications table form



Example of specifications table form



Answer Form of The Final Exam



Mathematics Assessment Sheet for Grades (5-9)



Mathematics Assessment Sheet for Grade (10)



Mathematics Assessment Sheet for Grade (11)



Mathematics Assessment Sheet for Grade (12)



