

Project Partners

Logos



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# Introduction

HOPEFUL (Extending teacHers' cOmPetences in the effective teaching of numeracy, literacy and digital skills to rEFUgee chiLdren) aims to improve the performance of secondary school-aged refugee and/or migrant children who have remained outside the educational system for an extended period of time in numeracy, literacy and digital competences and to reduce refugee and/or migrant pupils’ early school leaving in Malta, Greece, Italy and Cyprus. In specific, the project aspires to enhance secondary school teachers’ aptitude in teaching numeracy, literacy and/or digital skills to refugee and/or migrant children with learning gaps due to interrupted education and with minimal native and/or English language skills through online training.

Moreover, a key goal of HOPEFUL is the creation of an innovative diagnostic tool for the effective assessment of numeracy, literacy and digital competences, gaps and needs of refugee and/or migrant pupils in secondary education. Since each country has a different education system, the exercises for assessing the aforementioned competences are not based on specific age clusters, but on two broader education stages: Lower Post-Primary (typically covers ages 12 to 15) and Upper Post-Primary (typically covers ages 15 to 18). The assessment Booklet developed for Upper Post-Primary pupils entails three main components and provides methods and practices for assessing:

* Numeracy Competence: Algebraic, Statistical Skills
* Literacy Competence: Reading Comprehension, Oral Language, Writing and Composition, Arguing/Reasoning, Critical Thinking
* Digital Competence: Multimedia, Presentations and Tools, Spreadsheets, Networks and Security

It is expected that the accurate diagnostic assessment will allow teachers to identify gaps and misconceptions, differentiate learning needs and make informed decisions so as to address pupils’ actual needs and assist them in bridging the gaps caused by interrupted education, thus, reducing the likelihood of early school leaving.

## Overview

The present Teachers’ Manual is designed to supplement the Booklet for Upper Post-Primary pupils by providing teachers with more information on the procedures to follow during testing, test time allocation, correct answers to the exercises, student performance descriptors, guidelines for scoring, evaluation and appropriate use of students’ results. Last but not least, the last part of the Manual has space for teacher’s self-reflection regarding the exercises’ content, timing and scoring.

The Manual is intended for use by teachers in line with their country’s policy level (national, regional or local depending on education system) and always in conjunction with other important information such as students’ background, age, vulnerability, former education and language skills. Provided that refugee and/or migrant children do not commonly speak the host country language and/or English and most have been out of school for a significant amount of time, caution should be taken when interpreting student results.

Student scores should be used as a guide (and not as a direct reflection of their actual abilities) that will help teachers identify knowledge gaps in numeracy, literacy and digital competences and prepare their learning material accordingly so as to better suit pupils’ learning needs. It is important that teachers also make behavioural observations regarding students’ attitude during the assessment, such as asking questions, following directions, adhering to rules, communicating and collaborating with peers, teachers, interpreters etc.

## Methods and Tools

The methods and tools needed in order for students to complete the exercises include:

* paper
* pencils
* rubbers
* pens
* personal computers/laptops
* Internet connection
* time meter for teacher’s use (you can also use your phone)

# Attainment Descriptors

This chapter includes student attainment descriptors for each of the specific sub-competences evaluated in the diagnostic tool. The attainment descriptors were mostly drawn from *Schola Europaea-Pedagogical Development Unit*, but were subsequently adapted in order to fit the context in which they will be used.

## 1. Numeracy Competence

(Adapted from Schola Europaea, 2019)

* 1. Algebra

1.1.1. Basic Calculations

The student is able to:

* Apply basic calculations (+, –, ×, /) over the set of ℚ
* Verify calculation rules and properties and use them in simple algebraic expressions

1.1.2. Square Numbers, Roots and Powers

The student is able to:

* Use calculation rules and properties
* Recall the first 20 square numbers
* Understand that squaring and square rooting are inverse operations

1.1.3. Radicals and Surds

The student is able to:

* Understand that √2 ∉ ℚ and recognise other surds
* Distinguish between exact and approximate calculations
* Apply the following properties of radicals:
* √𝑎√𝑏 = √𝑎𝑏 for 𝑎, 𝑏 ∈ ℝ+ ∪ {0}
* √𝑎 √𝑏 = √ 𝑎 𝑏 for 𝑎 ∈ ℝ+ ∪ {0}, 𝑏 ∈ ℝ+
* √𝑎 2𝑏 = 𝑎√𝑏 for 𝑎, 𝑏 ∈ ℕ
* √𝑎 2 = |𝑎| for 𝑎 ∈ ℝ

1.1.4. Proportionality

1.1.4.1. Direct Proportionality

The student is able to:

* Investigate phenomena which can be modelled with direct proportion: 𝑦 = 𝑘 ∙ x

1.1.4.2. Inverse Proportionality

 The student is able to:

* Investigate phenomena which can be modelled with inverse proportion: 𝑦 = 𝑘 / x
* Use table of values

1.1.4.3. Representations of Direct and Inverse Proportions

The student is able to:

* Represent direct and inverse proportions with graphs

1.1.5. Linear Models

1.1.5.1. Functions and Relations

The student is able to:

* Define a relation and a function in establishing that one variable (quantity) is dependent on another variable (quantity)
* Understand the differences and similarities between relations and functions
* Use function notation (𝑦 = 𝑓(𝑥)) and vocabulary with and without a technological tool
* Understand and apply the following equations 𝑎𝑥 + 𝑏𝑦 + 𝑐 = 0 and 𝑦 = 𝑚𝑥 + 𝑝 and convert from the first one to the second one

1.1.5.2. Variables and Parameters

The student is able to:

* Understand the difference between variables and parameters

1.1.5.3. Linear Graphs

The student is able to:

* Represent linear relations with graphs
* Calculate the axes intercepts for linear graphs and solve other equations that are related to linear formulae

1.1.6. Linear Equations

1.1.6.1. Simultaneous Equation

The student is able to:

* Investigate real problems which can be modelled with simultaneous linear equations
* Solve simultaneous linear equations by plotting the graphs and algebraically (by substitution and/or elimination)

1.1.7. Polynomials

1.1.7.1. Polynomial expressions

The student is able to:

* Simplify algebraic expressions with powers and recognise equivalent expressions
* Understand that a polynomial is an expression consisting of variables and coefficients of the following forms: 𝑎𝑥 2 + 𝑏𝑥 + 𝑐
* Add polynomial expressions in one variable
* Understand that the order of a polynomial is determined by the highest power of the variable
* Simplify and order polynomial expressions with one variable

1.1.7.2. Quadratic expressions

The student is able to:

* Factorise the quadratic expressions:
* Apply the special identities
	1. Statistics and Probability

1.2.1. Data Collection

1.2.1.1. Level of Measurement: Nominal, Ordinal, Interval or Ratio

The student is able to:

* Analyse the level of measurement of a variable in a concrete situation, being either nominal, ordinal (both categorical), interval or ratio (both numerical)

1.2.1.2. Organize Data: Absolute, Relative and Cumulative Frequencies, Frequency Table

The student is able to:

* Understand the meaning of absolute, relative and cumulative frequencies
* Use data from scientific sources
* Calculate different types of frequencies (write relative frequencies as fractions and percentages) by hand
* Use relative frequencies to compare different data sets
* Organise data in a frequency table by hand (including all of the above frequency types)

1.2.2. Data Set Characteristics

1.2.2.1. Mode, Mean, Median, Quartiles, Measure of Center, Measure of Spread

The student is able to:

* Identify and interpret the mode in an appropriate data set, also in case the data are presented in a frequency table
* Calculate and interpret the (arithmetic) mean of a set of data at interval or ratio measurement level, also in case the data are presented in a frequency table
* Determine and interpret the median of a set of data also in case the data is presented in a frequency table
* Understand the meaning and determine the quartiles of a set of data
* Understand the meaning and how to calculate the range
* Understand the meaning and how to calculate the interquartile range

1.2.3. Graphical Representation of Data

1.2.3.1. Graphical Representations, Pie Chart, Bar Chart, Comparing Two Sets of Data

The student is able to:

* Investigate and interpret graphical representations
* Use graphical representations to find estimations of central tendency and dispersion by hand
* Interpret a given pie chart
* Present a data set using a pie chart
* Interpret a given bar chart
* Present a data set using a bar chart
* Use the above graphical representations to compare two sets of data with respect to key data points and the spread of the data

1.2.4. Probability

1.2.4.1. Sample Space

The student is able to:

* Define the sample space in a random experiment

1.2.4.2. Concept of Complementary, Independent, Mutually Exclusive and Exhaustive Events

The student is able to:

* Understand the idea of probability leading on from relative frequency
* Calculate probabilities using Venn diagrams and tree diagram

1.2.4.3. Venn Diagram

* Use a Venn diagram to represent the set of possible outcomes and events

## 2. Literacy Competence

(Adapted from Schola Europaea, 2017)

* 1. Reading

The student is able to:

* Read and understand a wide range of texts in a variety of formats
* Reflect on the purpose of the text
* Pick out the significant details in the text without further instructions
* Explain meaning in their own words
* Reflect on different perspectives and viewpoints
* Make interpretations
* Summarise and report accurately
	1. Oral

The student is able to:

* Give a presentation which meets the requirements of a complex assignment
* Formulate sentences accurately
* Use appropriate and varied vocabulary in a suitable style/register
* Communicate and start conversations
* Express emotions and imagination
* Engage with others’ ideas

* 1. Writing

The student is able to:

* Write neatly, legibly and fluently
* Use language with appropriate syntax, vocabulary and spelling
* Produce texts of increased length and complexity which comply with the instruction given and with their context from impersonal and personal viewpoints

* 1. Arguing/Reasoning

The student is able to:

* Argue on concrete topics
* Adopt a viewpoint for/against and formulate arguments in a clear/coherent way
	1. Critical Thinking

The student is able to:

* Reflect on topics of everyday reality without further instructions

## 3. Digital Competence

(Adapted from Schola Europaea, 2015)

* 1. Software

The student is able to:

* Briefly describe the process of digitizing sound
* Indicate the basic characteristics of digitized sound
* Report the basic features of a digital video
* Report key characteristics of a video (quality and size)
	1. Introduction to Program

The student is able to use PowerPoint Presentations to:

* Create a presentation
* Save a presentation in various file types
* Format the layout and text of a presentation
	1. Spreadsheets

The student is able to:

* Describe the main characteristics of a table
* Create a table
* Format a table
* Sort items in a table
	1. ICT and Society

The student is able to:

* Define and understand the terms: Computer Network, LAN, WAN
* Define and understand networking devices: Network Interface Card (NIC), Switch, Router, Modem
* Understand Network and Internet risks
* Use appropriate settings to protect their data on wireless networks
* Enable Windows Firewall protection
* Create strong and secure passwords

# Scoring and Timing

The exercises in the Booklet are not to be completed all at once and short breaks should be introduced. Therefore, teachers are free to choose when and how students will complete the exercises. However, students should not be allowed to turn over to the next pages of the Booklet and should hand the Booklet in to the teacher by the end of the assigned exercises.

Each competence (Numeracy, Literacy, Digital) is allocated 100 points and points vary regarding the length and difficulty of the exercises in each sub-competence. The point allocation for each specific exercise can be found in the chapter *Correct Answers*. A qualitative assessment of students’ results is the following:

* 76-100 Excellent
* 51-75 Good
* 26-50 Fair
* 0-25 Needs Improvement

The following table contains information on Scoring and Timing for each competence and sub-competence assessed in the Upper Post-Primary Booklet. The results for each competence should be used separately and not averaged as they represent distinct skills, independent of one another. Provided that refugee and/or migrant children usually present with minimal native language and/or English skills, more time is dedicated to assess Literacy competence which is considered to be of increased difficulty for these students.

|  |  |  |
| --- | --- | --- |
| Topics and Subtopics | Scoring | Timing |
| 1. Numeracy Competence
 | 100 points | 235 mins |
| 1.1. Algebra | 65 points | 165 mins |
| 1.1.1. Basic Calculations | 3 points | 15 mins |
| 1.1.2. Square Numbers, Roots and Powers | 5 points | 15 mins |
| 1.1.3. Radicals and Surds | 6 points | 20 mins |
| 1.1.4. Proportionality | 11 points | 35 mins |
| 1.1.4.1. Direct Proportionality | 4 points | 15 mins |
| 1.1.4.2. Inverse Proportionality | 5 points | 15 mins |
| 1.1.4.3. Representations of Direct and Inverse Proportions  | 2 points | 5 mins |
| 1.1.5. Linear Models | 17 points | 30 mins |
| 1.1.5.1. Functions and Relations | 4 points | 10 mins |
| 1.1.5.2. Variables and Parameters | 10 points | 15 mins |
| 1.1.5.3. Linear Graphs | 3 points | 5 mins |
| 1.1.6. Linear Equations | 6 points | 15 mins |
| 1.1.6.1. Simultaneous Equation | 6 points | 15 mins |
| 1.1.7. Polynomials | 17 points | 35 mins |
| 1.1.7.1. Polynomial expressions | 7 points | 15 mins |
| 1.1.7.2. Quadratic expressions | 10 points | 20 mins |
| 1.2. Statistics and Probability | 35 points | 70 mins |
| 1.2.1. Data Collection | 11,5 points | 25 mins |
| 1.2.1.1. Level of Measurement: Nominal, Ordinal, Interval or Ratio | 5 points | 15 mins |
| 1.2.1.2. Organize Data: Absolute, Relative and Cumulative Frequencies, Frequency Table | 6,5 points | 10 mins |
| 1.2.2. Data Set Characteristics | 4,5 points | 10 mins |
| 1.2.2.1. Mode, Mean, Median, Quartiles, Measure of Center, Measure of Spread | 4,5 points | 10 mins |
| 1.2.3. Graphical Representation of Data | 3 points | 10 mins |
| 1.2.3.1. Graphical Representations, Pie Chart, Bar Chart, Comparing Two Sets of Data | 3 points | 10 mins |
| 1.2.4. Probability  | 16 points | 25mins |
| 1.2.4.1. Sample Space | 4 points | 5 mins |
| 1.2.4.2. Concept of Complementary, Independent, Mutually Exclusive and Exhaustive Events | 9 points | 15 mins |
| 1.2.4.3. Venn Diagram | 3 points | 5 mins |
| 1. Literacy Competence
 | 100 points | 280 mins |
| 2.1. Reading | 20 points | 100 mins |
| 2.2. Oral | 20 points | 45 mins |
| 2.3. Writing | 20 points | 45 mins |
| 2.4. Arguing/Reasoning | 20 points | 45 mins |
| 2.5. Critical Thinking | 20 points | 45 mins |
| 1. Digital Competence
 | 100 points | 140 mins |
| 3.1. Multimedia | 25 points | 60 mins |
| 3.2. Presentations and Tools | 25 points | 20 mins |
| 3.3. Spreadsheets | 25 points | 20 mins |
| 3.4. Networks and Security | 25 points | 40 mins |

# Correct Answers

## 1.Numeracy Competence

(100 points)

* 1. Algebra (65 points)
		1. Basic Calculations (3 points)

1. (1 point/0,5 points each)

a. 0

b. 6b + 5

2. (1 point/0,5 points each)

a. x= 8

b. k= -1

3. (1 point)

LCD= 12

Equivalent fractions with the LCD: 5/6= 10/12, 1/4= 3/12

1.1.2. Square Numbers, Roots and Powers (5 points)

1. (3 points/0,5 points each)

a. 6

b. 16

c. 5

d. 12

e. 9,69

f. 26,53

2. (2 points/0,5 points each)

a. (10,000)

b. (10,000,000,000)

c. (10,000,000,000,000,000)

d. (10)

1.1.3. Radicals and Surds (6 points)

1. (3 points/0,5 points each)

a. (60√ 10)

b. (40√ 5)

c. (3000√ 6)

d. (5)

e. (-4)

f. (-2)

2. (3 points/0,6 points each)

a. (√ 11/11)

b. (10√ 3)

c. (− 1/2 − √ 3/2)

d. (√ 7/5 − √ 2/5)

e. (− √ 5 − √)

1.1.4. Proportionality (11 points)

*1.1.4.1. Direct Proportionality (4 points)*

1. (1 point/0,5 points each)

1.1. b

1.2. a

2. (1 point/0,5 points each)

2.1. b

2.2. d

3. (2 points/0,4 each)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| X | 7 | 2 | 13 | 29 | 4 |
| Y | 42 | 12 | 78 | 174 | 24 |

*1.1.4.2. Inverse Proportionality (5 points)*

4. (1 point/0,5 points each)

4.1. b

4.2. a

5. (1 point)

c

6. (3 points/0,5 points each)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| X | 1 | 2 | 3 | 5 | 10 | 15 |
| Y | 1/150 | 1/75 | 1/50 | 1/30 | 1/15 | 1/10 |

*1.1.4.3. Representations of Direct and Inverse Proportions (2 points)*

7. (1 point)

a

8. (1 point)

b

1.1.5. Linear Models (17 points)

*1.1.5.1. Functions and Relations (4 points)*

1. (2 points/1 point each)

1.1. b

1.2. y2+x=1

2. (2 points/1 point each)

2.1. a

2.2.y=ax2

*1.1.5.2. Variables and Parameters (10 points)*

3. (10 points/1point each)

3.1. a

3.2. a

3.3. b

3.4. b

3.5. b

3.6. a

3.7. b

3.8. a

3.9. b

3.10. a

*1.1.5.3. Linear Graphs (3 points)*

4. (3 points)

4.1. (2 points)

A:(3;5)B: (1;2)

4.2. (1 point)

A: (1;0,8)

1.1.6. Linear Equations (6 points)

*1.1.6.1. Simultaneous Equation (6 points)*

1. (6 points)

1.1. (1 point)

a. x=10/11

b. y=18/11

1.2. (1 point)

a. x=4

b. y=0

1.3. (3 points)

a. x=-1

b. y=2

c. z= -3

1.4. (1 point)

a. x=3

b. y=4

1.1.7. Polynomials (17 points)

*1.1.7.1. Polynomial expressions (7 points)*

1. (1 point)

b

2. (1 point)

a

3. (5 points)

a. 4

b. 3

c. 9

d. 1

e. 0

*1.1.7.2. Quadratic expressions (10 points)*

4. (10 points/1 point each)

1. 3.a.$ x^{2}$+4x+3= ($x$ +1) ($ x$+3)
2. $x^{2}$-7x+12= $\left(x-3\right)$ ($x$ -4)
3. $x^{2}$-2x-8= ($x$ +2) ($x$ -4)
4. $x^{2}$+x-2= ($x$ -1) ($x$ +2)
5. 6$x^{2}$-7x-20= (3$ x$ +4) (2$ x$ -5)
6. 12$x^{2}$-x-6= (3$ x$ +2) (4$ x$ -3)
7. $x^{2}$-25= ($x$ +5) ($x$ -5)
8. $x^{2}$-6x+9= ($x$ -3) 2
9. $x^{2}$+2ax+a2= ($x$ +a)2
10. 4x2-4x+1= (2x-1)2
	1. Statistics and Probability (35 points)

1.2.1. Data Collection (11,5 points)

*1.2.1.1. Level of Measurement: Nominal, Ordinal, Interval or Ratio (5 points)*

1. (3 points/0,25 points each)

a. ordinal

b. interval

c. nominal

d. nominal

e. ratio

f. ordinal

g. nominal

h. interval

i. ratio

j. interval

k. ratio

l. ordinal

2. (2 points/1 points each)

2.1. b

2.2. a

*1.2.1.2. Organize Data: Absolute, Relative and Cumulative Frequencies, Frequency Table (6,5 points)*

3. (6,5 points)

3.1. (4,5 points/0,5 points each)

a. 1

b. 1

c. 1

d. 5

e. 3

f. 2

g. 1

h. 1

i. 15

3.2. (1 point)

16,7%

3.3. (1 point)
13,4%

1.2.2. Data Set Characteristics (4,5 points)

*1.2.2.1. Mode, Mean, Median, Quartiles, Measure of Center, Measure of Spread (4,5 points)*

1. (3 points/1 points each)

1.1. 1,98

1.2. 2,01

1.3. 1,97

2. (1,5 points/0,75 points each)

2.1. 7

2.2. 7,4666

1.2.3. Graphical Representation of Data (3 points)

*1.2.3.1. Graphical Representations, Pie Chart, Bar Chart, Comparing Two Sets of Data (3 points)*

1. (1 point)

1.1. Team 1

2. (1 point/0,5 points each)

2.1. Team 1: Player 4, Team 2: Player 5

3. (1 point)

3.1. A.

1.2.4. Probability (16 points)

*1.2.4.1. Sample Space (4 points)*

1. (1 point)

c

2. (1 point)

b

3. (1 point)

b

4. (1 point)

a

*1.2.4.2. Concept of Complementary, Independent, Mutually Exclusive and Exhaustive Events (9 points)*

5. (1 point)

b

6. (1 point)

a

7. (1 point)

b

8. (1 point)

b

9. (5 points)

9.1. 1/65

9.2. 7/10

9.3. No

9.4. Independent

9.5. 15/56

*1.2.4.3. Venn Diagram (3 points)*

10. (3 points)

10.1. 2 (1 point)

10.2. 38 (1 point)

10.3. 60% (1 point)

## 2. Literacy Competence

(100 points)

* 1. Reading (20 points)

**1.Text A (5 points)**

1. (1 point)

Racism has to do with the unequal treatment of people due to diversity in terms of several characteristics and is a phenomenon prevalent in society in general, but also in the school environment. Racism in school takes the form or physical and verbal violence or marginalisation and is psychologically harmful to perpetrators, witnesses and especially victims. In specific, the latter may often drop out from school, lose their self-esteem or even engage in delinquent behaviour themselves, perpetuating violence. However, there are ways, mostly based on love, empathy and tolerance, to prevent and treat school racism which is learned rather than inherent in people.

1. (0,5 points)

Racism and discrimination are not traits inherent in people, but rather learned later on in life. During their socialisation, people often pick up discriminating against others different to themselves because those are unfamiliar and easy to scapegoat. On the other hand, compassion and empathy are natural inclinations of human beings and can be learned in the place of hate and discrimination.

3. (1 point/0,2 points each)

a. live

b. behaviour

c. beliefs

d. destructive

e. characterised

4. (1 point/0,2 points each))

a. united

b. inclusion

c. trustful

d. controlled

e. intolerance

5. (1,5 points)

|  |  |  |  |
| --- | --- | --- | --- |
| Perpetrators | Victims | Witnesses | Society |
| Feelings of guilt | Feelings of sadness, anger, anxiety, etc. | Feelings of guilt, fear, anxiety, etc. | Lack of social cohesion |
| Loss of self-respect | Loss of self-esteem | Approach-avoidance conflict | Inequity in all fields |
| Fear of retaliation | Engaging in violent and delinquent behaviour | Fear of retaliation | Increased expenses for physical and mental health |
| Poor social functioning | Poor social functioning | Loss of self-respect | Increased crime, violence, homicide rates |
| Poor mental health | Poor mental health |  | Dehumanisation |
| Physical injuries in the case of violence | Poor physical health and somatic symptoms |  | Intergenerational transfer of racism and segregation |
| All the above are indicative answers, pupils may come up with their own examples. |

**2.Text B (5 points)**

1. (1 point/0,25 points each)

a. F

b. T

c. Τ

d. F

2. (0,5 points)

Since COVID-19 accelerated the digitization of museums and cultural sites, it is now time to make this process financially profitable as well. If a high-quality digital experience has a reasonable cost for visitors, then cultural sites can increase their revenue and broaden their target audience with people from all around the world, regardless of the actual facilities’ capacity.

3. (0,5 points/0,25 points each)

a. Intellectual property issues that may occur from digitization have to do with legal issues, such as copyright and data protection (e.g., although a museum may own the physical copy of a work, it may not have the right to copy the content or display it digitally) which often require special authorization and permission.

b. The digitization process of cultural sites requires from professionals working in the field to learn new skills and abilities in order to keep up with it. For example, they need to learn how to use related technology and tools, acquire digital skills and get acquainted with innovative processes.

4. (1 point/0,25 points each)

a. think

b. fixed

c. resulted

d. piece

5. (1 point/0,25 points each)

a. leave

b. peripheral

c. delayed

d. obstacles

6. (1 point)

|  |  |
| --- | --- |
| Advantages | Disadvantages |
| Financially beneficial  | Intellectual property issues |
| Exceeds capacity of actual facilities  | New skills are required  |
| Visitors not bound by their place of residence | Careful planning is required |
| One can visit many places in less time | 1. Training personnel is required |
| 1. Can provide visitors with a rich media experience | 2. Number of visitors in actual facilities may decline |
| 2. Helps in digital preservation of exhibits |  |
| The last two are indicative answers, pupils may come up with their own ideas. |

**3.Text C (5 points)**

1. (1 point/0,125 points each)

a. economic and social problems

b. wars and conflicts

c. violation of human rights by authoritarian regimes

d. opportunities for prosperity and progress in host country

e. natural disasters

f. lack of services in home country

g. political persecution

h. good climate in host country (e., f., g. and h. are indicative answers, pupils may come up with their own ideas.)

2. (1 point)

Negative reactions to cultural co-existence have to do with people’s and governments’ fear of different ethnic and cultural groups and the wish to maintain distinct ethnic cultures and national identities. They often believe that assimilating multiple cultures may undermine social cohesion and cultural values. These reactions originate from fear, insecurity and xenophobia.

1. (1 point)

Multicultural education requires critical thinking in order to identify potentially prejudiced or biased learning material and practices, but also imagination so as to modify policies, programs, and instructional methods that may be discriminatory and transform them into more inclusive and diverse ones. Removing barriers to educational opportunities for all students is a difficult and lengthy process which requires strong values and commitment, while equity is also a basic premise and foundation of democracy.

1. (1 point)

Multicultural coexistence helps combat prejudice, racism, stereotypes and discrimination and promotes instead solidarity, respect, pluralism and the harmonious coexistence of people and social groups. It allows the latter to cooperate and engage in collective action in order to address universal problems and safeguard fundamental human rights. Moreover, multicultural coexistence promotes cultural dialogue, openness and empathy to different people and groups, enriching their interactions and ideas, fostering creativity and innovation. Last but not least, multicultural coexistence of different ethnic and cultural groups lays the foundation for a pluralistic and democratic society of equity and prosperity.

5. (1 point)

The school is a place where students from a variety of different cultures learn together and, thus, it can make a significant contribution in their harmonious coexistence by aiming to reduce prejudice and encourage tolerance and acceptance regardless of skin colour, ethnicity, religion, physical or mental abilities. Through the educational process, teachers can cultivate a climate of dialogue and openness so that students develop tolerance for the views of others who differ from their own. Also, by adopting a fair pedagogical system the school can foster the fundamental values ​​of justice, equity and efficiency.

**4.Text D (5 points)**

1. (1 point)

Physical: the author’s heart was pounding, hands were sweating, he was trembling, he had a tight stomach, he was pale

Psychological and Emotional: the author’s soul had been scalded, every day it hurt him more deeply, it became a torment, he suffered

Behavioural: the author started not to play with anyone, he was isolated, he ran to sleep or rather to hide under the mattresses leaving food in the middle

2. (1 point)

The game the author played was a representation of what was going on in his everyday life due to bullying. He identified with the blond ants because he was blond himself, but also because they were weaker as compared to the darker ants (his classmates) which is how he felt when faced with his bullies. The crowd of black ants defeated and killed the blond ant, a metaphor of his feelings of being tormented by the nicknames his classmates called him.

1. (1 point)

One teacher called him a “dufus” and the other one a “hedgehog”. Although teachers’ teasing might have been benevolent at first, it deeply hurt the author’s feelings and it provided his classmates with more nicknames to call him by. Thus, their behaviour was inappropriate and hurtful.

1. (1 point)

Once the author grew up, he started calling others nicknames just like his classmates did to him when he was a child. These nicknames were probably hurtful for others as the author mentions that they stopped bothering him once he assigned them a nickname. This behaviour is an indication of the vicious cycle of bullying and violence as victims are likely to become bullies themselves due to their former experience of victimization.

1. (1 point)

If the author had opened up about being bullied, he could have been offered comfort and support by significant others in his life, such as his family members, his teachers and the wider school community. His parents and teachers could assist him by acknowledging the situation and letting him know it is not his fault, avoiding negative comments and blaming. They could praise him for sharing the problem and also explain that it is the bully who behaves badly. Moreover, they could advise the author to avoid the bullies and not fight or bully them back which could escalate to violence. They could urge him instead to spend time with positive friends and participate in activities that could help him build friendships as well as foster his self-confidence. Both parents and the author’s school should take action to prevent further victimisation. For example, his parents could approach someone at school (e.g., teacher, principal, counsellor), let them know about bullying and get information on school’s anti-bullying policies so as to take steps to prevent further problems, while the bully's parents could also be approached and a meeting with them could be organised.

(The above answers are indicative. Students may express themselves in their own words as long as their reflections are in line with the purpose of the text.)

* 1. Oral (20 points)

1. (7 points)

a. Yes/No, because... (1 point)
b. Conditions include:

-artistic talent

-determination and commitment

-self-confidence

-the ability to come up with and develop good ideas

-good visual communication skills

-business and self-promotion skills

-technical ability (2 points)

c. inspiration, nature, personal challenges, love (2 points)
d. love, relationships, nature, war, body, emotions (2 points)

(All the above are indicative answers. Students are free to agree/disagree and may come up with their own ideas.)

2. (7 points)

a. School makes students more academically intelligent but it does not prepare them for real life. It provides technical knowledge, but not life skills. (1 point)
b. Academic intelligence, creative intelligence. (1 point)

c. He went out of his comfort zone and tried new experiences and challenges. (1 point)
d. Support them to explore more possibilities such as becoming entrepreneurs. (2 points)

e. Yes/No. It depends on life conditions and the support that someone receives. (2 points)

(All the above are indicative answers. Students are free to agree/disagree and may come up with their own ideas.)

3. (6 points)

Order: 4-3-1-2 (2 points)
Sense of sharing, community spirit, people are more in touch with friends and families. People have stopped taking things for granted, started caring more about others and showing greater empathy and concern. (4 points)

(The above answer is indicative. Students may come up with their own ideas.)

2.3. Writing (20 points)

1. (7 points)

Main characteristics of the speech:

-salutation

-informal touch

-considering the audience

-emphasizing to the advantages of technological progress and social media

2. (6 points)

Main characteristics of the article:

-title

-third person

a. seeking to understand the other, respect for the different point of view, active listening, showing trust and confidentiality

b. debates, open discussions, educational trips that enhance reflection

3. (7 points)

Main characteristics of the letter:

-first and second person

-disadvantages of remote work (isolation, lack of relationships among workers, decreased work and life balance)

-it is easier for employees to feel like they are part of a company's bigger picture when they are in the office

-brainstorming with coworkers etc.

(All the above are indicative answers. Students may come up with their own ideas.)

2.4. Arguing/Reasoning (20 points)

1. (10 points)

a. Yes. Legally, employers can fire employees for whatever reason they want. The first amendment only protects personal rights with the government. Also, a manager gets to choose the kind of people they want in the workplace. If they do not want a person who drinks, then a post of an employee drinking could get them fired. (5 points)

No. People’s Facebook posts are their own choice. If they wanted share what they are doing every day, then they should be able to. They should not be judged or fired just because they post something their boss does not like or agree with. Maybe it’s a picture where they are at a party or having fun. Either way they should not be judged or fired just because someone doesn’t agree with their activities. (5 points)

b. Yes. Television used to be and continues to be the main source of fun, information and advertising. Phones have not been developed, there wasn’t the Internet so a TV was something a whole family would enjoy every day. (5 points)

No. With the rapid growth of the smartphone industry and the Internet, television seems to be unable to follow them. Not because of the technical level, as TVs have become better than ever, but because of practicality and how fast we reach information. (5 points)

c. Women are well educated, talented and just as hardworking as their male counterparts. So, what is the problem? Women do not necessarily face significant barriers to enter the workplace, but they do face multiple obstacles when it comes to advancement. Women meet more resistance—and more isolation—as they move up the ranks. It is a consequence of implicit bias and stereotypes. (10 points)

d. Environmental issues, lack of sport facilities etc. (10 points)

e. Digital skills, raising their environmental awareness, soft skills (10 points)

(The above answers are indicative. Students may come up with their own arguments.)

1. (10 points/5 points each)

Some people hold the opinion that the consequences of our activities on wildlife cannot be undone. For example, many species of plants and animals have already become extinct and it is impossible to get them back. Deforestation, global warming, water and air pollution as a result of industrialization, are complicated issues that cannot be solved in a short period of time. Also, if industries shut down then countries’ economic development will decline. (5 points)

On the other hand, some people argue that there is a lot that can be done to tackle the aforementioned issues. For example, environmental laws to reduce carbon dioxide emissions could be introduced and green taxes could be imposed in order to decrease gas emissions. Moreover, individuals can reduce their environmental footprint as well by using alternative sources of energy and adopting eco-friendly habits (such as using recycled paper etc.). (5 points)

2.5. Critical Thinking (20 points)

1. (7 points)

 Causes:

- advertisement

- the culture of social pressure

- more pollution (3 points)

Consequences on relationships and societies:

-Material wealth is a decisive factor about whether a society is highly developed or not. Spiritual values are underplayed. This may not be applicable to people from Eastern cultures, who are generally more appreciative of spiritual values.

-Consumerism has also resulted in ecological imbalances, such as global warming and industrial pollution

-Personal relationships also get affected as people are busy trying to earn more to maintain their living standards (4 points)

2. (6 points)

Material goods often counterbalance challenges and problems that people may be facing, such as sense of loneliness, psychological problems and lack of self-esteem.

3. (7 points)

a. importance of focusing on the similarities that people have rather than differences (2 points)

b. All of us are citizens of the world. We need to have the same rights and obligations (1 point)
c. We should be responsible for our activities and behavior (1 point)

d. Suggestions:

- Talk to people that have different background than you
- Seek to understand and not making assumptions
- Keep an open mind

- Show empathy and tolerance (3 points)

(The above answers are indicative. Students may come up with their own ideas.)

## 3. Digital Competence

(100 points)

* 1. Multimedia (25 points)

1. (25 points)

Students’ points depend on whether they successfully managed to create a movie based on the learning material.

* 1. Presentations and Tools (25 points)

1. (25 points)

Students’ points depend on whether they successfully managed to complete all steps of the exercise.

* 1. Spreadsheets (25 points)

1. (25 points)

Students’ points depend on whether they successfully managed to complete the exercise.

* 1. Networks and Security (25 points)

1. (10 points/2 points each)

a.Networking is a setup of computer networks for data communication. The Internet is the biggest and most popular example of computer networking. (2 points)

b. The devices which are used for communication between different hardware’s such as hub, switch, routers used in a computer network are known as network devices. (2 points)

c. LAN (Local Area Network)-is a network of two or more computers and peripheral Devices within a small area like a room, office, and group of buildings, schools or a college campus. LANs enable communication within a range of 1 Km. WAN (Wide Area Network)-is a type of network covers a very large area, often a country or continent. This is normally used by the large organizations, whose offices are spread across the country or in different countries. (2 points)

d.In a peer-to- peer network architecture, all the nodes are connected to each other to exchange information. There is no server in peer-to-peer network. (2 points)

e. A communication medium is a channel required to transmit information between computers. (2 points)

2. (15 points)

a. Student creates a strong password (7 points)

b. List of ways to limit dangers: (8 points/1 point each)

* Change default passwords (1 point)
* Restrict access (1 point)
* Encrypt the data on your network (1 point)
* Protect your Service Set Identifier (SSID) (1 point)
* Install a firewall (1 point)
* Maintain antivirus software (1 point)
* Use file sharing with caution (1 point)
* Keep your access point software patched and up to date (1 point)

# Teacher Reflections

This is a space for personal reflection regarding the exercises’ content, timing and scoring. Take some time to reflect on the following questions. You can also keep notes if you like.

1. What do you think of the exercises’ content? (length, phrasing, level of difficulty, appropriateness, variety etc.)

* Numeracy

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* Literacy

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* Digital

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2. What do you think of the exercises’ timing? (sufficiency, time allocation etc.)

* Numeracy

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* Literacy

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* Digital

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3. What do you think of the exercises’ scoring? (appropriateness, point allocation etc.)

* Numeracy

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* Literacy

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* Digital

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4. Which exercises were the easiest for students?

* Numeracy

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* Literacy

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* Digital

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5. Which exercises did students struggle more with?

* Numeracy

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* Literacy

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* Digital

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6. How could the exercises and material be further improved?

* Numeracy

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* Literacy

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* Digital

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