# Evaluation of Knowledge and Skills Mathematics New Evidence for 2nd Year of Basic Education 

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#### Abstract

The purpose of this study is to analyze the evaluation process carried out in a Basic School of the Maule Region, in Chile, this process consists of a test that will be applied to the second grade of this establishment. This test was applied in the normal class schedule, the purpose is to comply with the Educational Improvement Plan and the current regulations of the Preferential School Grant Law. The evaluation instrument used corresponds to a written test, called: "Test of Knowledge and mathematical ability", which consists of 20 questions, divided into 4 learning axes; Numeration, Operative, Knowledge and Resolution of Geometric Problems and Resolution of Arithmetic Problems. For this trial the percentage to have an expected result is $60 \%$. The second grade of the school obtains a great result because more than half of the respondents obtained an expected performance exactly $71 \%$. Of the present results in addition to congratulate the professors and respective students it can be inferred that there are two areas that are weaker within the three courses which are geometry and operative, that is why it is suggested to try new methodologies to teach these areas, how to prove didactic activities for example using figures to make children feel more entertained, in addition, teachers can be trained in new teaching technologies. The report presents in much more detail the results obtained by the second grade in general and in detail, each one by itself with their respective learning axes.


Key Word: Education. Evaluation. Mathematical knowledge Mathematical ability. Expected result. Learning axis

## Introduction

The preparation of the Educational Improvement Plan requires the school to have a diagnosis of the learning situation of its students and the institutional aspects that impact them, in order to
determine annual achievement goals according to the results obtained in the evaluations. diagnostic tests. The present report, will give us the results obtained for Level NB1 ${ }^{1}$ in this case, second

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grade, specifying in each learning axis or item the percentage of students that manages to be within the expected category for the minimum level required. The test consists of four thematic axes, which include the key learning and learning indicators of each educational level.

## Evaluation Instrument

The instrument "Evaluation of knowledge and mathematical skills" (E.C.H.M) measures key knowledge in the areas of numbering, operative, knowledge and resolution of geometric $p$
roblems and solving arithmetic problems for second basic. Such knowledge corresponds to the fundamental skills and learning for the development of deeper knowledge within the three courses, the second grade A, B and C.
The Test was designed and validated by the Research Institute, considering the guidelines of the Ministry of Education for such purposes. The E.C.H.M is an instrument of election of answers, of items of unique selection. Each question has 4 answer options, where only one is correct. Some of the questions are accompanied by images or figures that serve as a contextualized element and facilitator of the understanding of the mathematical situations that must be developed.
The evaluation for NB1 consists of 20 questions, distributed among the four axes of mathematical knowledge.

Table No. 1: Distribution of questions by axes of learning

| Learning axes | Number of Questions |
| :--- | :---: |
| Numbering | 5 |
| Operative: Oral and written <br> calculation | 5 |
| Knowledge and resolution of | 5 |

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## Graphic $\mathbf{N}^{\mathbf{0}} \mathbf{1}$ : General Results



Table 3 shows the percentage of students who achieve the expected performance in each learning axis.
Table No.3: Results by Learning axes expressed as a percentage

| Learning axes |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Digits expressed as a percentage |  |  |  |  |
| Grade | Numeration | Operative | Geometry | Problem resolution |
| $2^{\circ}$ Grade | $91 \%$ | $55 \%$ | $51 \%$ | $83 \%$ |

Graphic $\mathbf{N}^{\mathbf{0}}$ 2: Results by Learning axes expressed as a percentage


In second grade, the axis with the highest percentage of students achieving the expected achievement is Numbering, while the Geometry
axis shows the lowest percentage of students achieving the expected performance in the applied assessment.

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## Results in each Mathematics Knowledge Axis

Next, the results obtained in each of the axes of mathematical knowledge evaluated are presented.

## 1. - Numbering Axis

## Indicators of achievement

- Solve problems related to the use of numbers up to 100 , to quantify, compare and estimate quantities or magnitudes.
- Solve problems related to the position of the digits in 2 -digit numbers and the relation to the concept of unit and decade.
Table No. 4 shows the data corresponding to the Numbering axis. It details the number of students evaluated, the number of students achieving the expected performance, the percentage of students achieving the expected performance, the expected annual goal, the number of students that ensure expected goal and the difference of students with respect to the expected goal.

Table No. 4: Results of the numeration learning axis.

| Learning <br> axes. | $\mathrm{No}^{\circ}$ <br> evaluated <br> students. | $\mathrm{No}^{\circ}$ students in <br> expected <br> performance. | \% students in <br> expected <br> performance. | Expected <br> annual <br> goal. | $\mathrm{No}^{\circ}$ students <br> that ensure <br> expected goal. | Difference of <br> students with <br> respect to <br> expected goal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Numeration | 80 | 73 | $91 \%$ | $100 \%$ | 80 | 7 |

The percentage of students at the level that is within the expected performance corresponds to $91 \%$.

## 1.1.- Analysis of the results

## Strengths

The students are able to:

- Handles numerical sequence in the range 1 to 100 .
- Domain of the decimal numbering system and its components of place value, position and figures.


## 1.2.- Recommendations

- Expand the numerical series in the range 100 to 999 , based on the number line.
- Carry out $10-\mathrm{in}-10$ counts, complete sequence tables.
- Constantly reinforce the composition of our numbering system, carrying out a learning sequence based, first on pure concepts, notational and then applied concepts.
- Incorporate the hundred concept through groups of 100 units or 10 tens.


## 2.- Operating axis

## Indicators of achievement

- They calculate mentally, using basic additive combinations and extension to two-digit numbers $(2+6=8,8-2=6,8-6$ $=2,20+60=80,80-20=60,80-60$, $=$ 20) and additive decomposition (for example: $12+18=10+2+10+8=20+$ $2+8=20+10=30$ ).
- They perform written calculations in the numerical level of the level using strategies such as the additive decomposition of each addend $(40+13=$ $40+10+3,26-18=26-10-8$ ).

Table 5 shows the data corresponding to the Arithmetic Operative axis. It details the number of students evaluated, the number of students

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achieving the expected performance, the percentage of students achieving the expected performance, the expected annual goal, the
number of students that ensure expected goal and the difference of students with respect to the expected goal.

Table No ${ }^{\circ}$ 5: Results of the operative learning axis.

| Learning <br> axis. | $\mathrm{No}^{\circ}$ <br> evaluated <br> students. | No ${ }^{\circ}$ students <br> in expected <br> performance. | \% students in <br> expected <br> performance. | Expected <br> annual <br> goal. | $\mathrm{No}^{\circ}$ students <br> that ensure <br> expected <br> goal. | Difference of students <br> with respect to <br> expected goal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operative | 80 | 44 | $55 \%$ | $90 \%$ | 72 | 28 |

The percentage of students at the level that is within the expected performance corresponds to $55 \%$.

## 2.1.- Analysis of the results

## Weaknesses

The students have difficulties to:

- Master the number sequence from 1 to 100. Students master meaningful counting strategies.
- Know the decimal numbering system and its characteristics.
- Master the oral and written calculus by applying strategies of additive decomposition of the quantities.
- To master the operation of addition, understood as the union of elements of two disjoint sets.


## 2.2.- Recommendations

- Reinforce the ascending and descending count and construction of groups with concrete graphic and abstract elements to introduce the concept of place value.
- Incorporate the concept of ten as a grouping of 10 units.
- Work and complete positional tables.
- Work one-to-one addition. Associate the subtraction with expressions and actions to add and remove.
- Complete numerical series with concrete elements and expand their difficulty including more variables in the sequence.
- Work on calculating additions and subtractions through a variety of strategies.


## 3.- Axis of Knowledge and Resolution of Geometric Problems <br> Indicators of achievement

- Associate environmental objects with geometric shapes (one, two and three dimensions); using the corresponding geometric names and identifying their elements and characteristics.
- Solve problems in which geometric shapes that will be obtained from making cuts, bends or juxtaposition of figures (squares, triangles and rectangles) must be anticipated or predicted.

Table 6 shows the data corresponding to the Geometry axis. It details the number of students evaluated, the number of students achieving the expected performance, the percentage of students achieving the expected performance, the expected annual goal, the number of students that ensure expected goal and the difference of students with respect to the expected goal.

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Table No ${ }^{\circ} \mathbf{6}$ : Results of the knowledge and resolution of geometric problems learning axis.

| Learning <br> axis. | $\mathrm{No}^{\circ}$ <br> evaluated <br> students. | $\mathrm{No}^{\circ}$ students <br> in expected <br> performance. | \% students in <br> expected <br> performance. | Expected <br> annual <br> goal. | $\mathrm{No}^{\circ}$ students <br> that ensure <br> expected goal. | Difference <br> students with respect <br> to expected goal. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Geometry | 80 | 41 | $51 \%$ | $90 \%$ | 72 | 31 |

The percentage of students at the level that is within the expected performance corresponds to $51 \%$.

## 3.1.- Analysis of the results

## Weaknesses

The students have difficulties to:

- Recognize fundamental geometric notions; idea of space, point, plane, surface, etc.
- Understand the concept of plane in space. Without these ideas it is difficult to understand figures and bodies.
- Recognize fundamental elements of figures and geometric bodies (sides, edges, vertices, etc.).
- Represent figures and bodies through mental representations, which allow establishing new locations and positions of the forms in space.


## 3.2. - Recommendations

- Deepen the study of polygonal shapes and their elements and characteristics.
- Deepen the study of polyhedra and bodies of revolution.
- Develop positioning exercises and generation of geometric bodies through
problems of cutting or juxtaposition of forms.


## 4. - Arithmetic Problem Resolution Axis

 Achievement indicators- Solve problems related to the addition relative to the add actions; put together; move along; in the numerical level of the level.
- Solve problems related to the subtraction relative to the actions to be removed; pull apart; back; in the numerical level of the level.

Table 7 shows the data corresponding to the Problem solving axis. It details the number of students evaluated, the number of students achieving the expected performance, the percentage of students achieving the expected performance, the expected annual goal, the number of students that ensure expected goal and the difference of students with respect to the expected goal.

Table $\mathbf{N o}^{\mathbf{o}}$ 7: Results of the arithmetic problems learning axis.

| Learning <br> axes. | $\mathrm{No}^{\circ}$ <br> evaluated <br> students. | $\mathrm{No}^{\circ}$ students <br> in expected <br> performance. | \% students in <br> expected <br> performance. | Expected <br> annual <br> goal. | $\mathrm{No}^{\circ}$ students <br> that ensure <br> expected <br> goal. | Difference of students <br> with respect to <br> expected goal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| R. Problems. | 80 | 66 | $83 \%$ | $90 \%$ | 72 | 6 |

The percentage of students at the level that is within the expected performance corresponds to $83 \%$.

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## 4.1.- Analysis of the results

## Strengths

The students are able to:

- Master the natural numbers in the 0 to 100 range.
- Manage the operation of written calculation of additions and subtractions, using diversity of strategies; count in sequences, additive decomposition, algorithm, etc.
- Properly apply a problem-solving method that involves translation of verbal statements into arithmetic expressions.

Establish an analytical model of problem solving that allows to extract from the verbal statements the necessary and useful information to express the solutions arithmetically.

## 4.2.- Recommendations

- Expand the meaning of actions that allow the establishment of additions and subtractions in the numerical level of the level.
- Investigate different problem-solving strategies.

Comparative second basic results
Achievement indicators table by Grade

| Grade | $\mathbf{N o}^{\circ}$ evaluated students. | $\mathbf{N o}^{\circ}{ }^{\text {students in expected performance. }}$ | \% of achievement |
| :---: | :---: | :---: | :---: |
| $\mathbf{A}$ | 29 | 21 | $72 \%$ |
| $\mathbf{B}$ | 27 | 22 | $81 \%$ |
| $\mathbf{C}$ | 24 | 14 | $58 \%$ |

## Graphic Comparative By Grades



In the previous graphic it is observed that the second grade with the highest percentage of students that achieve the expected performance, is
the second B , while the course that presents a lower percentage of students that achieve the expected performance is the second $\mathbf{C}$.

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## Second Grade A

Achievement indicators table by key learning, Second grade A

| Learning <br> axes. | $\mathbf{N}^{\circ}$ <br> evaluated <br> students. | $\mathbf{N o}^{\circ}$ students in <br> expected <br> performance. | \% students in <br> expected <br> performance. | Expected <br> annual <br> goal. | $\mathbf{N o}^{\circ}$ students <br> that ensure <br> expected goal. | Difference of students <br> with respect to <br> expected goal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Numeration | 29 | 28 | $97 \%$ | $100 \%$ | 29 | 1 |
| Operative | 29 | 18 | $62 \%$ | $90 \%$ | 26 | 8 |
| Geometry | 29 | 6 | $21 \%$ | $90 \%$ | 26 | 20 |
| Problem <br> Resolution | 29 | 26 | $90 \%$ | $100 \%$ | 29 | 3 |

The present graphic shows the percentages of students of the second grade A, who achieved the expected performance in each key learning.

## Graphic Second Grade A



The graphic shows that the key learning with the highest percentage of students achieving the expected performance is Numeration. The key learning that presents lower percentage of students
that achieve the expected performance is Geometry.

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## Second grade $B$

## Achievement indicators table by key learning, Second grade B

| Learning axes. | No ${ }^{\circ}$ evaluated students. | No ${ }^{\circ}$ students in expected performance. | \% students in expected performance. | Expected annual goal. | No ${ }^{\circ}$ students that ensure expected goal. | Difference of students with respect to expected goal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Numeration | 27 | 24 | 89\% | 100\% | 27 | 3 |
| Operative | 27 | 16 | 59\% | 90\% | 24 | 8 |
| Geometry | 27 | 22 | 81\% | 90\% | 24 | 2 |
| Problem Resolution | 27 | 23 | 85\% | 100\% | 27 | 4 |

The present graphic shows the percentages of students in the second grade B , who achieved the expected performance in each key learning.

## Graphic Second grade B



The graphic shows that the key learnings with the highest percentage of students achieving the expected performance is numeration. The key
learning that has the lowest percentage of students that achieve the expected performance is Operative.

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## Second grade C

This graphic shows the percentages of students in the second grade C , who achieved the expected performance in each key learning.

## Graphic Second grade C



Achievement indicators table by key learning, Second grade C

| Learning <br> axes. | $\mathbf{N}^{\circ}$ <br> evaluated <br> students. | $\mathbf{N o}^{\circ}$ students in <br> expected <br> performance. | \% students in <br> expected <br> performance. | Expected <br> annual <br> goal. | $\mathbf{N o}^{\circ}$ students <br> that ensure <br> expected goal.Difference of <br> students with <br> respect to <br> expected goal. <br> Numeration 24 | 21 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

The graphic shows that the key learnings with the highest percentage of students achieving the expected performance is Numeration. The key learning that has the lowest percentage of students that achieve the expected performance is Operative.

Results of students by learning axes and by levels of achievement

## Results per axis of Learning

The final average of the test is obtained taking into consideration the total score of the test and
the score obtained by the student, as shown in the following formula:
Total score of the test: 20.
Score obtained by the student: X
Test requirement: 60\%
$\frac{X * 100}{20} \geq 60:$ The student achieved the test.
In turn it is important to note that the approval of each axis was made with a requirement of $60 \%$ of the total score of it as follows:
Total score of the axis: 5.

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Score obtained by the student on the axis: X Requirement for approval of the axis: $60 \%$ of the axis score (3 points)

$$
\frac{x * 100}{5} \geq 60: \text { the student achieved the axis. }
$$

## Results expressed in levels of achievement

The results of the assessment of Mathematical Skills will be expressed in levels of achievement, considering that:

Each Level of Achievement is associated with a certain range of scores, which allows classifying the student's performance according to their score obtained. In the following tables the scoring ranges are presented to determine each Achievement Level (Initial, Intermediate and Advanced)

| Achievement levels | Range of scores* |
| :---: | :---: |
| Initial | $0 \%$ a $60 \%$ |
| Intermediate | $61 \% \mathrm{a} 80 \%$ |
| Advanced | $81 \% \mathrm{a} 100 \%$ |

Score range: Percentage of students in each level of achievement.
It is worth mentioning that the scoring ranges are exclusive for this evaluation. The results obtained by the school, expressed in levels of achievement, are the following:

|  | Levels of achievement |  |
| :--- | :--- | :--- |
|  | Digits expressed as percentage |  |
| Grade | Initial | Intermediate |
| $2^{\circ}$ Grade | $43 \%$ | $50 \%$ |
| Advanced |  |  |



As can be seen in the graphic, students are mainly at the level of intemediate achievement and at the
level of advanced achievement there are only a few students.

Research
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Annex 1.1 Second grade A

|  | Datos del alumno |  |  |  |  | Evaluacion por eje de aprendizaje |  |  |  | Puntaje | Evaluación | NIVEL DE LOGRO |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| № | Rut | Paterno | Materno | Nombres | Curso | NUM | OPE | GEO | PRO | Prueba | Prueba | Prueba |
| 1 | 21476009 | BUSTAMANTE | LOBOS | NICOLAS JESUS | A | 100\% | 60\% | 60\% | 80\% | 15 | 75\% | Intermedio |
| 2 | 21489049 | CACERES | LEMA | MATIAS ENRIQUE | A | 80\% | 60\% | 40\% | 60\% | 12 | 60\% | Inicial |
| 3 | 21543630 | CAMPOS | TAPIA | SERGIO SEBASTIAN | A | 100\% | 60\% | 40\% | 80\% | 14 | 70\% | Intermedio |
| 4 | 21231828 | COFRE | IBANEZ | FRANCISCA | A | 100\% | 40\% | 40\% | 60\% | 12 | 60\% | Inicial |
| 5 | 21381852 | DONOSO | RAVELLO | FRANCHESCA CATALINA | A | 100\% | 60\% | 60\% | 60\% | 14 | 70\% | Intermedio |
| 6 | 21579010 | ESCANILLA | QUIROZ | CONSTANZA | A | 80\% | 80\% | 40\% | 80\% | 14 | 70\% | Intermedio |
| 7 | 21413621 | FREIRE | MARTINEZ | VICENTE | A | 80\% | 60\% | 60\% | 80\% | 14 | 70\% | Intermedio |
| 8 | 21513267 | FREIRE | MUNOZ | THAIS ROMANE | A | 80\% | 20\% | 40\% | 0\% | 7 | 35\% | Inicial |
| 9 | 21586529 | GAVILAN | MONTECINOS | VALENTINA DEL PILAR | A | 80\% | 40\% | 20\% | 100\% | 12 | 60\% | Inicial |
| 10 | 21087241 | HEISE | ARELLANO | SERGIO | A | 100\% | 20\% | 0\% | 80\% | 10 | 50\% | Inicial |
| 11 | 21290440 | HERNANDEZ | RAMOS | MANUELIGNACIO | A | 80\% | 20\% | 20\% | 20\% | 7 | 35\% | Inicial |
| 12 | 21450822 | HERNANDEZ | SEPULVEDA | NATALIA FERN,ANDA | A | 100\% | 80\% | 40\% | 80\% | 15 | 75\% | Intermedio |
| 13 | 21553833 | HERNANDEZ | PINILLA | IGNACIO ANTONIO | A | 80\% | 20\% | 40\% | 40\% | 9 | 45\% | Inicial |
| 14 | 21594179 | LARA | MUNOZ | YULIANA ESCARLETT | A | 40\% | 40\% | 40\% | 80\% | 10 | 50\% | Inicial |
| 15 | 21472870 | LUNA | RAMIREZ | JUAN | A | 80\% | 60\% | 0\% | 60\% | 10 | 50\% | Inicial |
| 16 | 21415359 | MOLINA | VALENZUELA | ANTONIA BERNARDA | A | 100\% | 60\% | 20\% | 60\% | 12 | 60\% | Inicial |
| 17 | 21472917 | REBOLLEDO | BASOALTO | YOVANI ANTONIO | A | 100\% | 80\% | 20\% | 80\% | 14 | 70\% | Intermedio |
| 18 | 21167376 | RETAMAL | RAMOS | CHRISTIAN ALEXIS | A | 100\% | 40\% | 80\% | 60\% | 14 | 70\% | Intermedio |
| 19 | 21524652 | RODRIGUEZ | QUEZADA | JOSEFA ANTONELLA | A | 100\% | 80\% | 40\% | 60\% | 14 | 70\% | Intermedio |
| 20 | 21313060 | SALAS | MILLANES | JUAN | A | 100\% | 80\% | 40\% | 60\% | 14 | 70\% | Intermedio |
| 21 | 21328242 | SALGADO | IBANEZ | MONSERRAT ROCIO DEL C. | A | 100\% | 80\% | 80\% | 80\% | 17 | 85\% | Avanzado |
| 22 | 21408890 | SALGADO | GATICA | MATIAS ALEJANDRO | A | 100\% | 60\% | 40\% | 100\% | 15 | 75\% | Intermedio |
| 23 | 21394925 | SALINAS | MOYA | PABLO ALONSO | A | 80\% | 40\% | 20\% | 100\% | 12 | 60\% | Inicial |
| 24 | 21491915 | SEPULVEDA | JAQUE | NISSI ESMERALDA | A | 100\% | 60\% | 20\% | 80\% | 13 | 65\% | Intermedio |
| 25 | 21545153 | SEPULVEDA | CONCHA | DIEGO | A | 60\% | 40\% | 20\% | 80\% | 10 | 50\% | Inicial |
| 26 | 21402472 | SILVA | ZUNIGA | YORDAN ANDRES | A | 100\% | 80\% | 60\% | 80\% | 16 | 80\% | Intermedio |
| 27 | 21531278 | SILVA | CISTERNAS | KATHERINNE ALEJANDRA | A | 100\% | 60\% | 40\% | 60\% | 13 | 65\% | Intermedio |
| 28 | 21440156 | ZUNIGA | FIGUEROA | SEBASTIAN DANILO | A | 80\% | 60\% | 40\% | 100\% | 14 | 70\% | Intermedio |
| 29 | 21482858 | ZURITA | FERNANDEZ | BRUNO IGNACIO | A | 80\% | 40\% | 20\% | 80\% | 11 | 55\% | Inicial |

Achievement levels Second grade A evaluation

|  | Achievement levels | Amount of students | \% of students |
| :---: | :---: | :---: | :---: |
| Second Grade A | Initial | 13 | $45 \%$ |
|  | Intermediate | 15 | $52 \%$ |
|  | Advanced | 1 | $3 \%$ |



In the second grade A, $45 \%$ of the students are in the level of initial achievement, that is, 13
students obtained a percentage of achievement of the evaluation less than $60 \% .52 \%$ of the students

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are in the intermediate level of achievement, that is, 15 students obtained a percentage of achievement of the evaluation between $61 \%$ and $80 \%$. Finally, $3 \%$ of the class, equivalent to 1
student, is at the advanced level of achievement, obtaining a percentage of achievement of the evaluation higher than $81 \%$.

Annex 1.2 Second grade B

|  | Datos del alumno |  |  |  |  | Evaluacion por eje de aprendizaje |  |  |  | Puntaje | Evaluación | NIVEL DE LOGRO |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| № | Rut | Paterno | Materno | Nombres | Curso | NUM | OPE | GEO | PRO | Prueba | Prueba | Prueba |
| 1 | 21601490 | ARAYA | ARAYA | JUAN PABLO | B | 100\% | 40\% | 80\% | 80\% | 15 | 75\% | Intermedio |
| 2 | 21494475 | BILCHE | MUNOZ | ANTONIA IGNACIA ALMENDRA | B | 80\% | 60\% | 60\% | 20\% | 11 | 55\% | Inicial |
| 3 | 21439681 | BURGOS | URRUTIA | NICOL | B | 100\% | 80\% | 60\% | 100\% | 17 | 85\% | Avanzado |
| 4 | 21585136 | CIFUENTES | VARGAS | BELEN EMILIA | B | 100\% | 40\% | 80\% | 80\% | 15 | 75\% | Intermedio |
| 5 | 21460149 | CISTERNA | VILLAR | CRISTOBAL ANDRES | B | 80\% | 60\% | 60\% | 80\% | 14 | 70\% | Intermedio |
| 6 | 21466875 | CONCHA | PAVEZ | MONSERRAT SORLABINIA | B | 100\% | 60\% | 60\% | 100\% | 16 | 80\% | Intermedio |
| 7 | 21405500 | CONTRERAS | POVEA | MARCO ANTONIO | B | 100\% | 60\% | 100\% | 80\% | 17 | 85\% | Avanzado |
| 8 | 21329123 | FERNANDEZ | VILLALOBOS | FABIAN MATIAS | B | 100\% | 40\% | 40\% | 80\% | 13 | 65\% | Intermedio |
| 9 | 21329149 | FERNANDEZ | VILLALOBOS | AXEL MAXIMILIANO | B | 100\% | 60\% | 60\% | 20\% | 12 | 60\% | Inicial |
| 10 | 21489044 | FREIRE | MUNOZ | KEVIN ALEXANDER | B | 100\% | 80\% | 60\% | 80\% | 16 | 80\% | Intermedio |
| 11 | 21392550 | GONZALEZ | SUAREZ | MARIA | B | 0\% | 0\% | 0\% | 0\% | 0 | 0\% | Inicial |
| 12 | 21588366 | GONZALEZ | SANCHEZ | MATIAS FELIPE | B | 100\% | 60\% | 80\% | 80\% | 16 | 80\% | Intermedio |
| 13 | 21521098 | GUZMAN | LABRANA | FLORENCIA IGNACIA | B | 100\% | 60\% | 80\% | 80\% | 16 | 80\% | Intermedio |
| 14 | 21595130 | JARA | CARRASCO | CRISTOPHER ALEJANDRO | B | 80\% | 40\% | 40\% | 60\% | 11 | 55\% | Inicial |
| 15 | 21573517 | LAGOS | AEDO | SOFIA FRANCISCA | B | 60\% | 40\% | 60\% | 80\% | 12 | 60\% | Inicial |
| 16 | 21479375 | MALDONADO | LARA | CONSTANZA BELEN | B | 100\% | 60\% | 80\% | 80\% | 16 | 80\% | Intermedio |
| 17 | 21415730 | MORALES | VERDUGO | LEONARDO EMILIO | B | 100\% | 40\% | 80\% | 80\% | 15 | 75\% | Intermedio |
| 18 | 21379048 | MUNOZ | MORALES | DAMIAN A.LEXIS | B | 100\% | 40\% | 60\% | 80\% | 14 | 70\% | Intermedio |
| 19 | 21610554 | NAVARRO | BALBOA | MARTINA ANTONIA | B | 100\% | 60\% | 60\% | 80\% | 15 | 75\% | Intermedio |
| 20 | 21462775 | OSSES | ALARCON | CRISTOBAL | B | 80\% | 60\% | 40\% | 80\% | 13 | 65\% | Intermedio |
| 21 | 21595208 | PACHECO | SEPULVEDA | PAULINA | B | 100\% | 80\% | 60\% | 80\% | 16 | 80\% | Intermedio |
| 22 | 21523941 | PARRA | POVEA | NICOLAS ESTEBAN | B | 100\% | 80\% | 60\% | 80\% | 16 | 80\% | Intermedio |
| 23 | 21560999 | POLLINY | GANGAS | CONSTANZA ALESSANDRA | B | 80\% | 80\% | 100\% | 100\% | 18 | 90\% | Avanzado |
| 24 | 21614122 | RIQUELME | MONTOYA | LUCAS FRANCISCO | B | 20\% | 40\% | 60\% | 60\% | 9 | 45\% | Inicial |
| 25 | 21513553 | RIVERA | SEPULVEDA | NICOLAS ANDRES | B | 100\% | 60\% | 60\% | 80\% | 15 | 75\% | Intermedio |
| 26 | 21515742 | VALENZUELA | ARAVENA | SEBASTIAN ALEXIS | B | 0\% | 0\% | 0\% | 0\% | 0 | 0\% | Inicial |
| 27 | 21370804 | VASQUEZ | SALGADO | CRISTIAN MARCELO | B | 100\% | 40\% | 60\% | 80\% | 14 | 70\% | Intermedio |

Achievement levels Second grade B evaluation

|  | Achievement levels | Amount of students | \% of students |
| :---: | :---: | :---: | :---: |
| Second grade B | Initial | 7 | $26 \%$ |
|  | Intermediate | 17 | $63 \%$ |
|  | Advanced | 3 | $11 \%$ |



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In the second grade B, $26 \%$ of the students are in the initial achievement level, that is, 7 students obtained a percentage of achievement of the evaluation less than $60 \%$.
$63 \%$ of the students are in the intermediate level of achievement, that is, 17 students obtained a
percentage of achievement of the evaluation between $61 \%$ and $80 \%$.
Finally, $11 \%$ of the course, equivalent to 3 students, are in the advanced level of achievement, obtaining a percentage of achievement of the evaluation higher than $81 \%$.

Annex 1.3 Second grade C

|  | Datos del alumno |  |  |  |  | Evaluacion por eje de aprendizaje |  |  |  | Puntaje | Evaluación | NIVEL DE LOGRO |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| № | Rut | Paterno | Materno | Nombres | Curso | NUM | OPE | GEO | PRO | Prueba | Prueba | Prueba |
| 1 | 21361137 | ABRIGO | SEGURA | BAYRON MAURICIO | C | 60\% | 60\% | 40\% | 80\% | 12 | 60\% | Inicial |
| 2 | 100191083 | BALLADARES | BORDON | SARA ELENA BELEN | C | 100\% | 60\% | 100\% | 80\% | 17 | 85\% | Avanzado |
| 3 | 21348455 | BENITES | YEVENES | JORGE | C | 100\% | 60\% | 80\% | 100\% | 17 | 85\% | Avanzado |
| 4 | 21478920 | IBANEZ | BUSTAMANTE | CHRISTIANNE ANDREA | C | 80\% | 60\% | 0\% | 80\% | 11 | 55\% | Inicial |
| 5 | 21315602 | MAUREIRA | OLIVEROS | ELIZABETH ESPERANZA | C | 80\% | 80\% | 40\% | 80\% | 14 | 70\% | Intermedio |
| 6 | 21494400 | MEDINA | CACERES | MATIAS IGNACIO | C | 60\% | 20\% | 60\% | 0\% | 7 | 35\% | Inicial |
| 7 | 21405655 | MENDEZ | SALDANA | FERNANDO ANDRES | C | 100\% | 40\% | 40\% | 80\% | 13 | 65\% | Intermedio |
| 8 | 21566621 | MUNOZ | SALDANA | PEDRO JEREMIAS | C | 100\% | 20\% | 60\% | 60\% | 12 | 60\% | Inicial |
| 9 | 21590000 | MUNOZ | REBOLLEDO | SILVIA.ANDREA | C | 40\% | 20\% | 40\% | 20\% | 6 | 30\% | Inicial |
| 10 | 21337330 | PARRA | SAZO | MARIA CATALINA ANDREA | C | 100\% | 40\% | 20\% | 80\% | 12 | 60\% | Inicial |
| 11 | 21583849 | PEREIRA | OLIVARES | DANIELA | C | 80\% | 20\% | 60\% | 40\% | 10 | 50\% | Inicial |
| 12 | 26356734 | QUEZADA | ORELLANA | BELEN | C | 80\% | 80\% | 60\% | 80\% | 15 | 75\% | Intermedio |
| 13 | 21144200 | QUINTEROS | RAMOS | PEDRO | C | 80\% | 20\% | 80\% | 60\% | 12 | 60\% | Inicial |
| 14 | 21368500 | RAMIREZ | ORELLANA | JEISON MATIAS | C | 100\% | 20\% | 60\% | 100\% | 14 | 70\% | Intermedio |
| 15 | 21356173 | RETAMAL | ROSALES | BENJIAMIN ALEJANDRO | C | 80\% | 40\% | 60\% | 100\% | 14 | 70\% | Intermedio |
| 16 | 21387403 | REVECO | BASOALTO | FELIPE ANSELMO | C | 100\% | 60\% | 20\% | 40\% | 11 | 55\% | Inicial |
| 17 | 21296645 | ROCA | ANTUNEZ | J.AVIER | C | 80\% | 20\% | 20\% | 100\% | 11 | 55\% | Inicial |
| 18 | 21350095 | SEPULVEDA | SILVA | JAVIERA BELEN | C | 100\% | 80\% | 40\% | 100\% | 16 | 80\% | Intermedio |
| 19 | 21176061 | SOTOMAYOR | VILLAR | HECTOR | C | 100\% | 40\% | 60\% | 100\% | 15 | 75\% | Intermedio |
| 20 | 21531339 | TAPIA | ZURITA | MOISES ALEJANDRO | C | 40\% | 40\% | 60\% | 40\% | 9 | 45\% | Inicial |
| 21 | 21587928 | TEMPINI | PAZ | MARLENE ANDREA | C | 60\% | 40\% | 0\% | 40\% | 7 | 35\% | Inicial |
| 22 | 21530832 | TORRES | BARROS | YHULIANO STEEVEN | C | 80\% | 80\% | 60\% | 60\% | 14 | 70\% | Intermedio |
| 23 | 21302617 | VASQUEZ | SOTO | PABLO | C | 60\% | 40\% | 20\% | 40\% | 8 | 40\% | Inicial |
| 24 | 21389018 | villarroel | silva | luis | C | 40\% | 60\% | 60\% | 60\% | 11 | 55\% | Inicial |

Achievement levels Second grade C evaluation

|  | Achievement levels | Amount of students | \% of students |
| :---: | :---: | :---: | :---: |
| Second grade C | Initial | 14 | $58 \%$ |
|  | Intermediate | 8 | $33 \%$ |
|  | Advanced | 2 | $8 \%$ |

Results $2^{\circ} \mathrm{C}$


Initial


Intemediate Achievement levels

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In the second grade C, $58 \%$ of the students are in the level of initial achievement, that is, 14 students obtained a percentage of achievement of the evaluation less than $60 \%$.
$33 \%$ of the students are in the intermediate level of achievement, that is, 8 students obtained a percentage of achievement of the evaluation between $61 \%$ and $80 \%$.
Finally, $8 \%$ of the course, equivalent to 2 students, are at the advanced level of achievement, obtaining a percentage of achievement of the evaluation higher than $81 \%$.

## General Conclusions

Finally we can conclude that the grade that stands out is the second grade B , because the percentage of students who achieve the expected achievement is significantly higher in relation to the other grades.
Regarding the axes of learning, the three grades ( $\mathrm{A}, \mathrm{B}$ and C ) coincide when presenting a better numbering performance, and a deficit in the operating axis.
At the school level, the axis that presents the highest percentage of students that achieve the expected achievement corresponds to Numeration and the axis with the lowest percentage of students that achieve the expected achievement corresponds to Geometry.

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[^0]:    ${ }^{1}$ Level NB1 corresponds to the First and Second grade.

[^1]:    ${ }^{2}$ Expected performance is understood as when the student obtains the minimum percentage required for approval.

