



**train your
neurons**

programme for children from 5 to 13 years



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Why is it created?

The digital era has completely changed our way of storing and obtaining information. Most of the data needed is just at a click distance. Not even is it necessary to memorize telephone numbers, addresses, or relevant dates, as the smartphone, the tablet, or the laptop reminds us of everything.

Technology makes our lives easier, **but it should not be forgotten that the brain is like a muscle and as such, the more it is trained, the more it is developed.** In the same way, when its training stops, it can miss a part of its potential.

For this reason, it is very important to teach the children to maintain their brains active as much as possible.

The ALOHA Mental Arithmetic's objective is to provide children with the necessary tools in order to successfully face the future changes

- 1 memorizing
- 2 allowing their imagination to fly away
- 3 reasoning
- 4 searching alternative solutions to everyday problems



The programme

ALOHA Mental Arithmetic is a mental development programme intended for children between 5 and 13 years old which is offered in - public, private and concerted private - Schools as an extracurricular and a curricular activity.

The programme enhances the children intelligence through three key tools:



**Didactic
games**



**Abacus
calculation**



**Mental
Arithmetic**

One of the most important points of ALOHA Mental Arithmetic is its joyful and interactive spirit.

Children learn as they play thanks to a didactic methodology where game plays an important role.

Why from 5 to 13 years?

Because it is one of the periods when the brain experiments a greatest plasticity, as in this time, the brain connections are defined.

The connections that are not used during this essential stage, will be subjected to a "synaptic pruning" process and they will no longer be part of the children neuronal net.

The cognitive work carried out by the student during the ALOHA lessons contributes to stimulate these connections in order these can pass the "pruning process". The more connections remain in the children brain, the more competent their adult brain will be.

ALOHA is the
acronym of Abacus
Learning Of Higher
Arithmetic



Leading programme

ALOHA Mental Arithmetic is a worldwide reference in children mental development programme's implementation, with Centers in more than 30 countries within the 5 continents.

More than 250.000 students from cities such as Sidney, London, New York or Mumbai follow the programme in one of the thousand Centers where it is offered.

In Spain, ALOHA Mental Arithmetic collaborates with more than 500 School Centers, reaching 15.000 students across the country.

ALOHA educative Project is adapted to the national educational projects and to the current regulations



From its beginning, ALOHA has bet for the quality and professionalism as a basic and fundamental factor:

- ALOHA has a quality programme at international level which seeks to guarantee the homogeneity in all the Centers where it is offered.
- All the ALOHA teachers have a teacher training/education: a teaching diploma, Pedagogy, Psychopedagogy, Psychology...
- ALOHA Quality Department is responsible for the technical and pedagogical supervision of the whole teachers network.
- There is a Center Coordinator in each one of the areas where the programme is offered being responsible for its correct development.
- ALOHA teaching material is continuously checked and updated.
- **ALOHA SPAIN has been granted the ISO 9001:2008 Certification, which recognizes the effectiveness of the trainers and the teachers learning processes.**



The benefits

Let's begin with a challenge:

"Two people play chess.
Out of five chess games, each one wins three"

How is this possible?

At first sight most people would feel puzzled with this question. The reason is that in order to solve it, the lateral thinking has to be set in motion, the one that tries to find different solutions, or that sets aside the classic approaches.

ALOHA Mental Arithmetic provides their students with the necessary mechanisms to squeeze their potential with the development of the main brain activities:



Attention and concentration



Creativity



Imagination and visualization



Listening capacity



Spatial orientation



Analytical skills



Photographic memory



Observation abilities

An ALOHA student has the riddle's SOLUTION
Both chess players do not compete against each other.

Work methodology

ALOHA students practice these 8 skills through two different ways:

In a crosscutting way,
through abacus calculation and mental arithmetic.

Specifically,
through games and activities specifically designed by a team of psychologists and pedagogues to enhance each one of these skills.

Scientific base

The report "The impact of Abacus Learning of Mental Arithmetic on Cognitive Abilities of Children" (2005) scientifically demonstrates that the ALOHA Mental Arithmetic programme directly affects the students development capabilities.

Below are given the main points of the report:

Aim of the report

To study the impact of the abacus learning on cognitive skills, such as concentration, problem solving skills, operative memory, associative memory or spatial orientation.

Results

- Significant differences in operative memory, problem solving skills, associative memory and concentration between the ALOHA students and those students who do not attend the programme.
- ALOHA students show a superior improvement in mathematics performance.
- Spatial orientation improves very quickly during the first ALOHA level.
- The concentration capacity is significantly increased from one level to the next.

Sample frame

School-age children between 8 and 12 years old, including both ALOHA learners and non-ALOHA learners.

Sample N=320

It has been distributed in two groups composed of 160 children each one, the experimental group (ALOHA learners) and the control group (non-ALOHA learners).

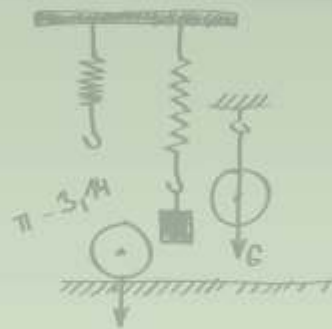
Assessment tools

- Raven standard progressive Matrices (J.C. Raven, 1956).
- Letter cancellation test.
- Wallach and Kogan test of creativity (M.A: Wallach and N. Kogan, 1965, adapted by C.R. Paramesh, 1972).
- The Porteus Maze Test (Stamley D. Porteus, 1967).
- The concept Formation (Komal Dwivedi, 1976).
- The Wechsler Intelligence Scale for Children (Wechsler, 1958).

Methodology

Longitudinal study with quasi experimental design and multiple evaluations:

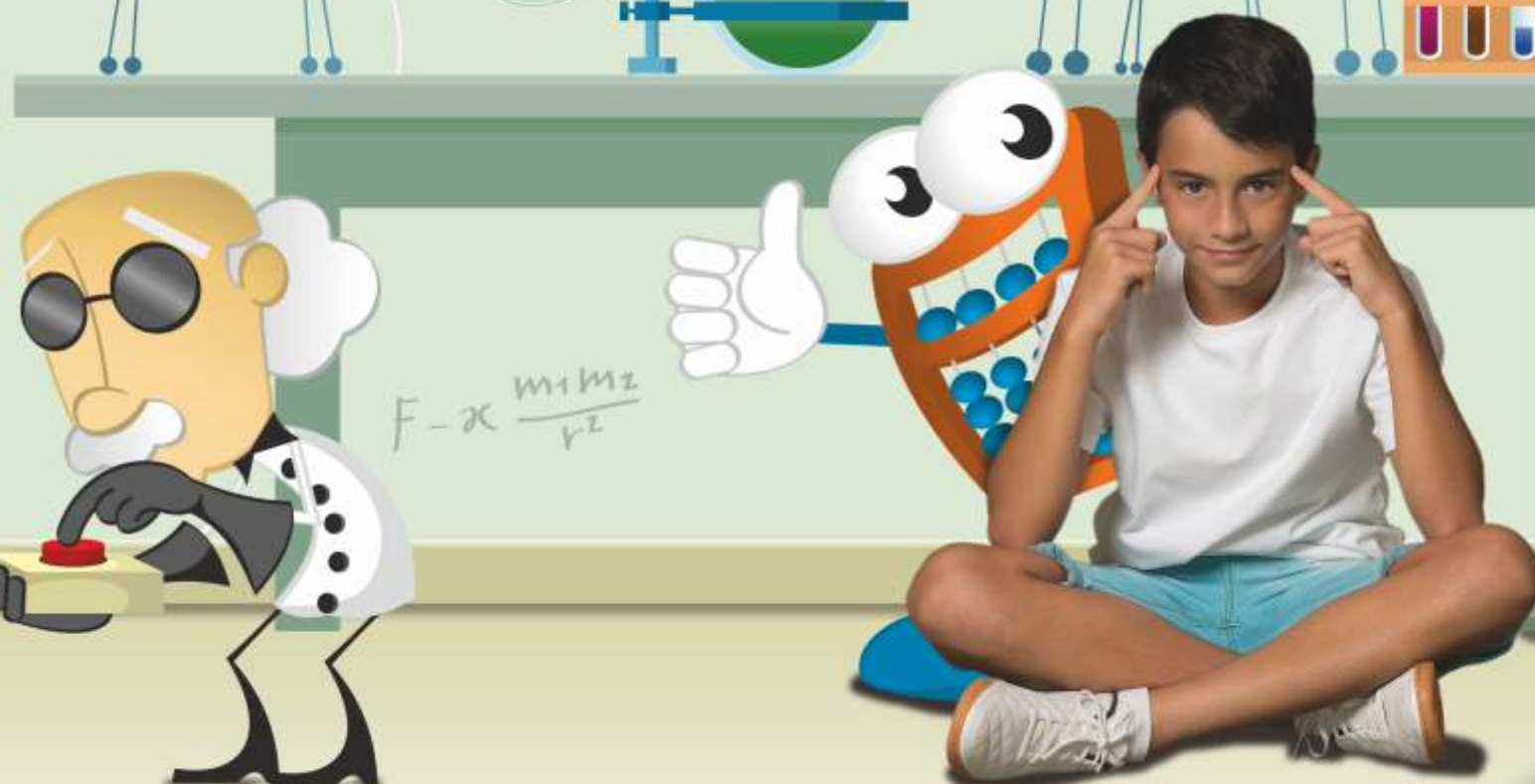
- Pretest to establish the base line of all the subjects.
- 3 evaluations during the intervention, coinciding with the end of the 3 first ALOHA levels. The intervention consisted in the ALOHA training with the experimental group and no-specific-cognitive training for the control group.
- Post-test coinciding with the end of the 4th ALOHA level.



The human brain is divided into two hemispheres: the right and the left hemisphere. Each one of these hemispheres controls one side of the body, and has specific functions.

Several scientific reports have demonstrated that in the West, people mostly use the left brain hemisphere in their daily lives, missing the right hemisphere great potential.

Thanks to the ALOHA Mental Arithmetic programme, the students simultaneously train both hemispheres, making the best out of their intellectual capacities.



$$F = k \frac{m_1 m_2}{r^2}$$

Methodology

At ALOHA we believe that the learning process must consider the cognitive, social and affective factors of each one of the students, in an individualized way. For this reason, the ALOHA methodological base has taken as a reference theories from authors such as Piaget, Vygotski o Skinner, among others.

Learning construction

Each child has some previous knowledge through which the assimilation and the knowledge accommodation must be carried on.

The game as a tool

The leisure activities enhance the student's motivation and learning, as they benefit the zone of proximal development.

Significant learning

Put into practice, makes its comprehension and permanence in the child cognitive structure easier.

Other factors that have been taken into account for the programme's methodology definition:

Learning styles

In order to benefit the assimilation of concepts, ALOHA presents its activities through 3 learning styles: visual, auditory and kinesthetic.

Groups

The ALOHA lessons combine individual activities, in small and big groups.

Homogeneity and heterogeneity

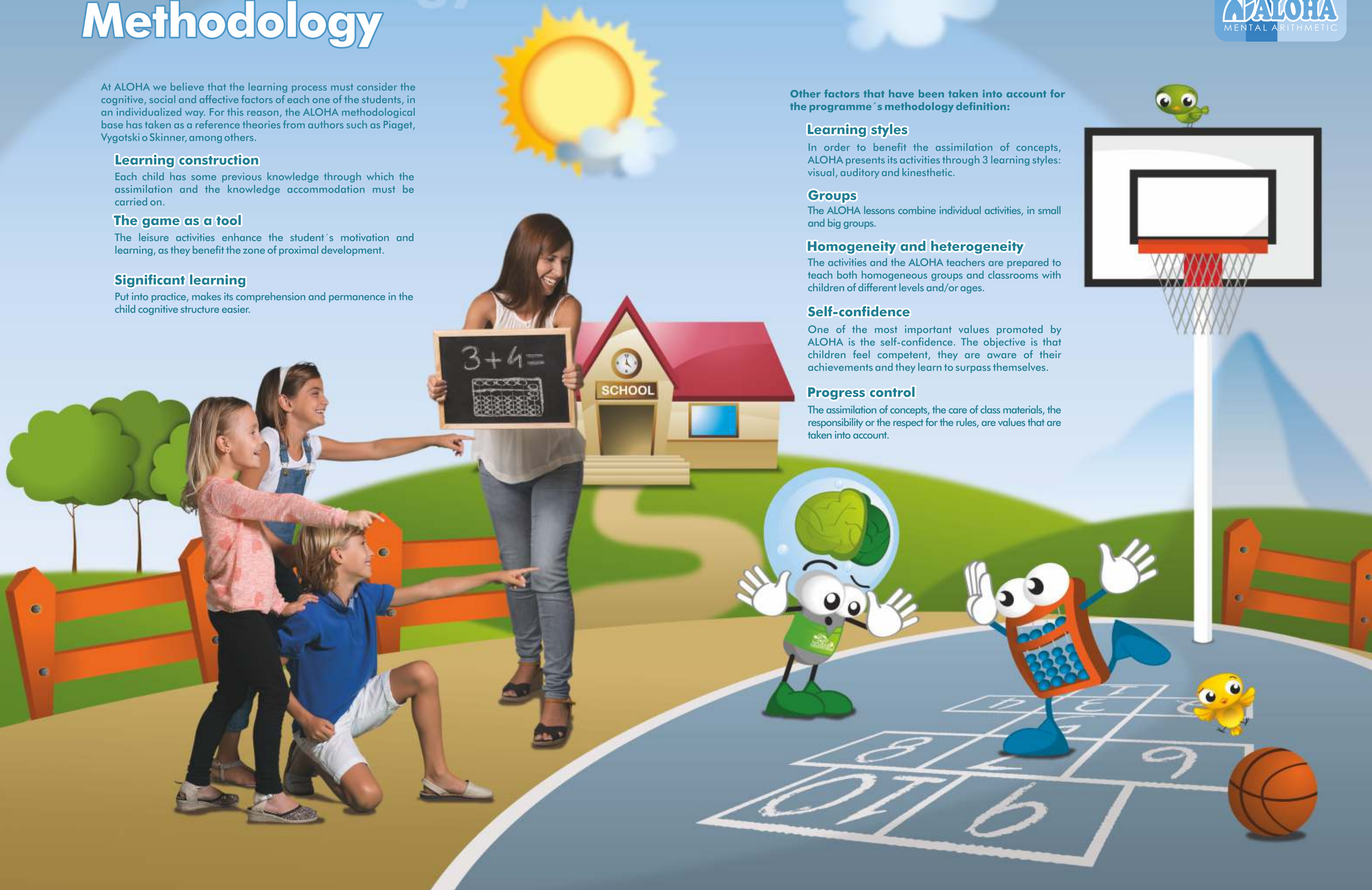
The activities and the ALOHA teachers are prepared to teach both homogeneous groups and classrooms with children of different levels and/or ages.

Self-confidence

One of the most important values promoted by ALOHA is the self-confidence. The objective is that children feel competent, they are aware of their achievements and they learn to surpass themselves.

Progress control

The assimilation of concepts, the care of class materials, the responsibility or the respect for the rules, are values that are taken into account.



The sessions

The ALOHA sessions are composed of different types of exercises oriented to activate both brain hemispheres: the right and the left.

Abacus calculation

The students learn to solve arithmetic operations with the abacus - the oldest calculation tool known – as if it was a beads game: additions, subtractions, multiplications, divisions, square roots, powers, combined operations...

Through the use of the abacus, the students train their mental agility, their attention and psychomotricity, among other skills.

Mental arithmetic

Through the practice, the students stop using the abacus to calculate and begin to practice with an imaginary abacus to solve the operations.

The mental calculation improves the concentration, it develops the memory and it enhances the ability to work with several ideas at the same time.

Didactic games

During the sessions the students play games specifically designed to boost the 8 cognitive skills that the programme enhances:

- Attention/concentration
- Imagination/visualization
- Spatial orientation
- Listening capacity
- Analytical skills
- Observation
- Creativity
- Photographic memory

At the end of the programme, the students work mentally with powers, squared roots and combined operations, solving arithmetic calculations such as:
 $22 \times (362 - 113 + 207) \div 152$



The sessions

All the students' educational needs have been considered when designing the ALOHA sessions, promoting playful stimulus, respecting the attention curve, enhancing the family learning approach...

Face -to -face teaching

During the sessions, there is a continuous feedback between the teacher and the student, being of great importance the teacher's role as a guide during the child learning process.

Sessions duration

ALOHA students attend their sessions two hours per week, which can be unified in a single session, or in two sessions of one hour each.

Fun-filled sessions

To promote the students participation, all the classroom activities have a playful component, promoting a pleasant and relaxed atmosphere.

Intensity of the exercises

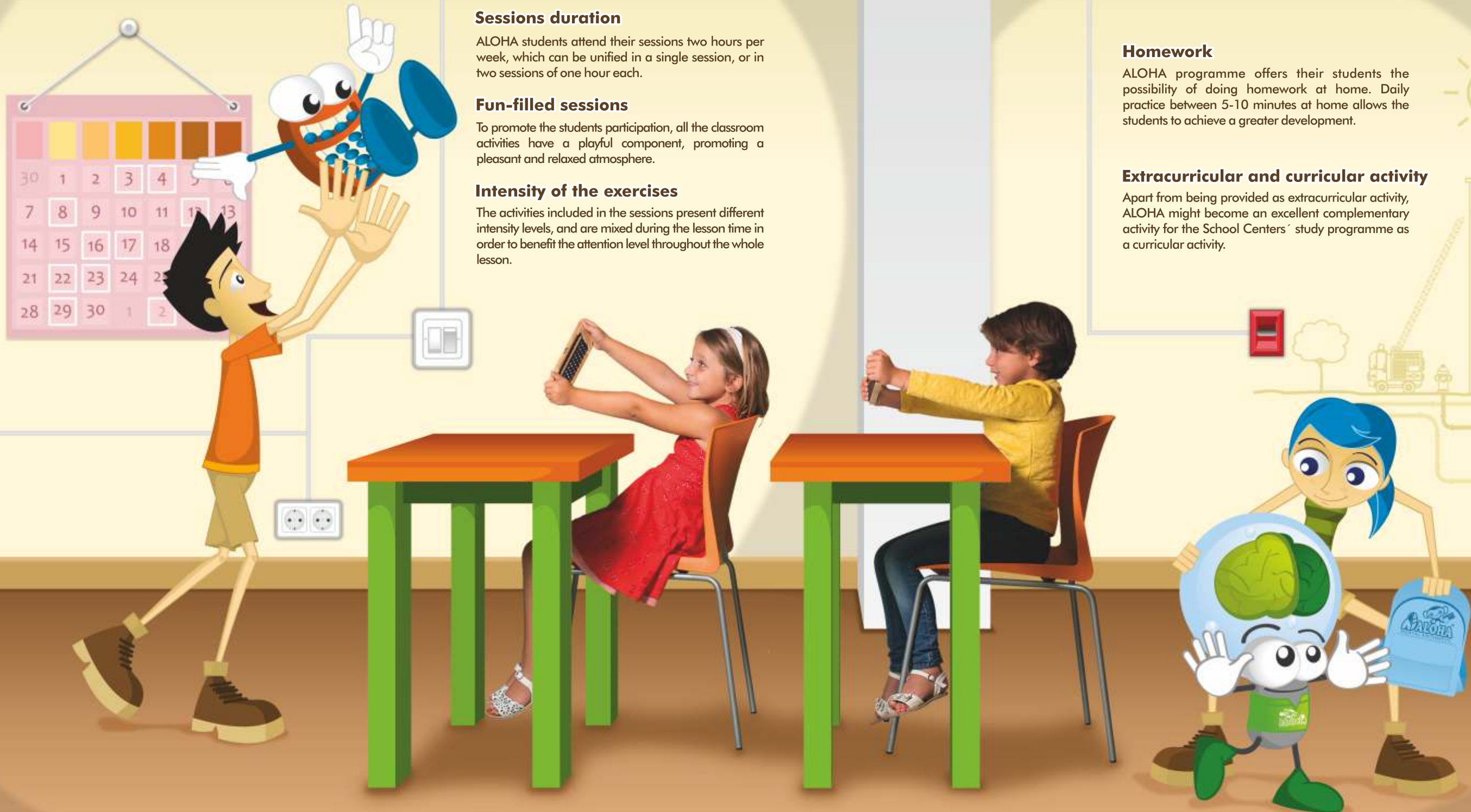
The activities included in the sessions present different intensity levels, and are mixed during the lesson time in order to benefit the attention level throughout the whole lesson.

Homework

ALOHA programme offers their students the possibility of doing homework at home. Daily practice between 5-10 minutes at home allows the students to achieve a greater development.

Extracurricular and curricular activity

Apart from being provided as extracurricular activity, ALOHA might become an excellent complementary activity for the School Centers' study programme as a curricular activity.



Motivation in the classroom

ALOHA Mental Arithmetic programme combines different resources to enhance the student's innate motivation: the positive, immediate and rewarding the effort instead of the result, within others.

Social

Good behavior is awarded with individual or collective indications of appreciation.

Activities

The students who behave better, decide which activities will be done, and they are in charge of the material or in charge of leading the games.

Materials

In addition to this, in order to bring the programme closer to the students, initiatives oriented to enhance the motivation are being carried on.

Medals, bracelets, diplomas... Are some of the prizes received by the ALOHA students as an award for their effort.

The contents are presented by the John Neuron and Rebeka Eureka characters, two superheroes with very special abilities who help the students boost their capacities

To bring the programme closer to the students, initiatives aimed at boosting the extrinsic children motivation are being carried on:

Difficulty level

In order for the students to work always within their capacities, the activities have different difficulty levels.

Close targets

With the aim of offering the students reasonable targets in the short term, the programme contents are distributed in cycles and in levels.

Championship

Every year, ALOHA organizes Regional, National and International Championships. The objective of these tournaments is that children work on their self-confidence and develop a spirit of improvement within a climate of healthy competition.

Families

For the families to feel part of their children educative process, ALOHA continuously creates different collaboration opportunities: homework, satisfaction questionnaires, family activities, open classrooms, periodical communications, information about their children progress...



Study Programme

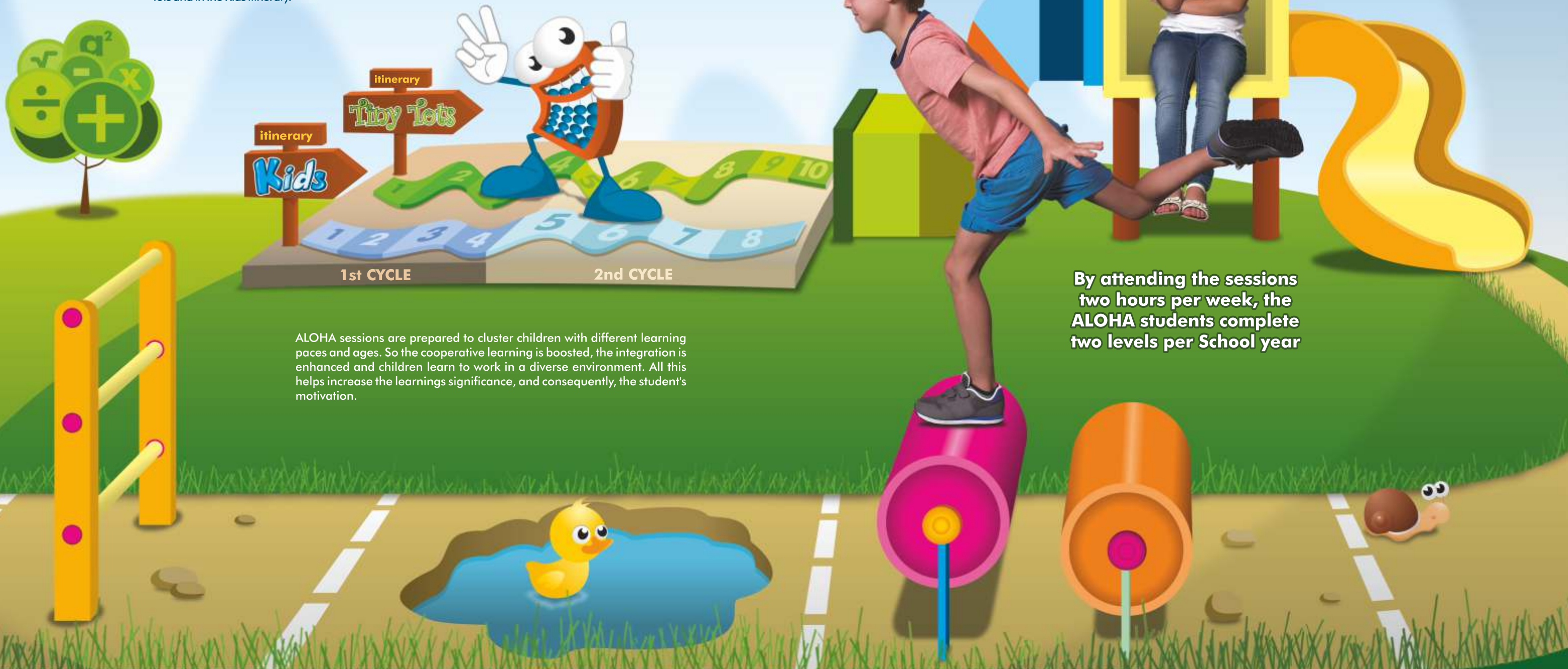
ALOHA programme respects the different learning pace of the students. For this reason, there are 2 different itineraries, according to the age when the child starts the course.

Tiny Tots: students who **start** the sessions aged between 5 and 7 years old.

Kids: students who **start** the sessions at 8 years old or older.

Both itineraries are independent and at the end of each one, the children would have learn the same knowledge. The only difference between them is that the progress is slower in Tiny Tots itinerary allowing the student the time he needs to acquire the contents.

The material used in the sessions (books, didactic games and abacus) is completely adapted to the maturation process and the fine motor skills of the students, both in the Tiny Tots and in the Kids itinerary.



ALOHA sessions are prepared to cluster children with different learning paces and ages. So the cooperative learning is boosted, the integration is enhanced and children learn to work in a diverse environment. All this helps increase the learnings significance, and consequently, the student's motivation.

By attending the sessions two hours per week, the ALOHA students complete two levels per School year

The teachers

Since the beginning, one of ALOHA's main values is the commitment to excellence, being the teacher one of the central pillars of its quality programme.

In addition to this, all ALOHA teachers receive a periodic training distributed in 10 levels of a total duration of 150 hours of training, which are always provided in small groups.

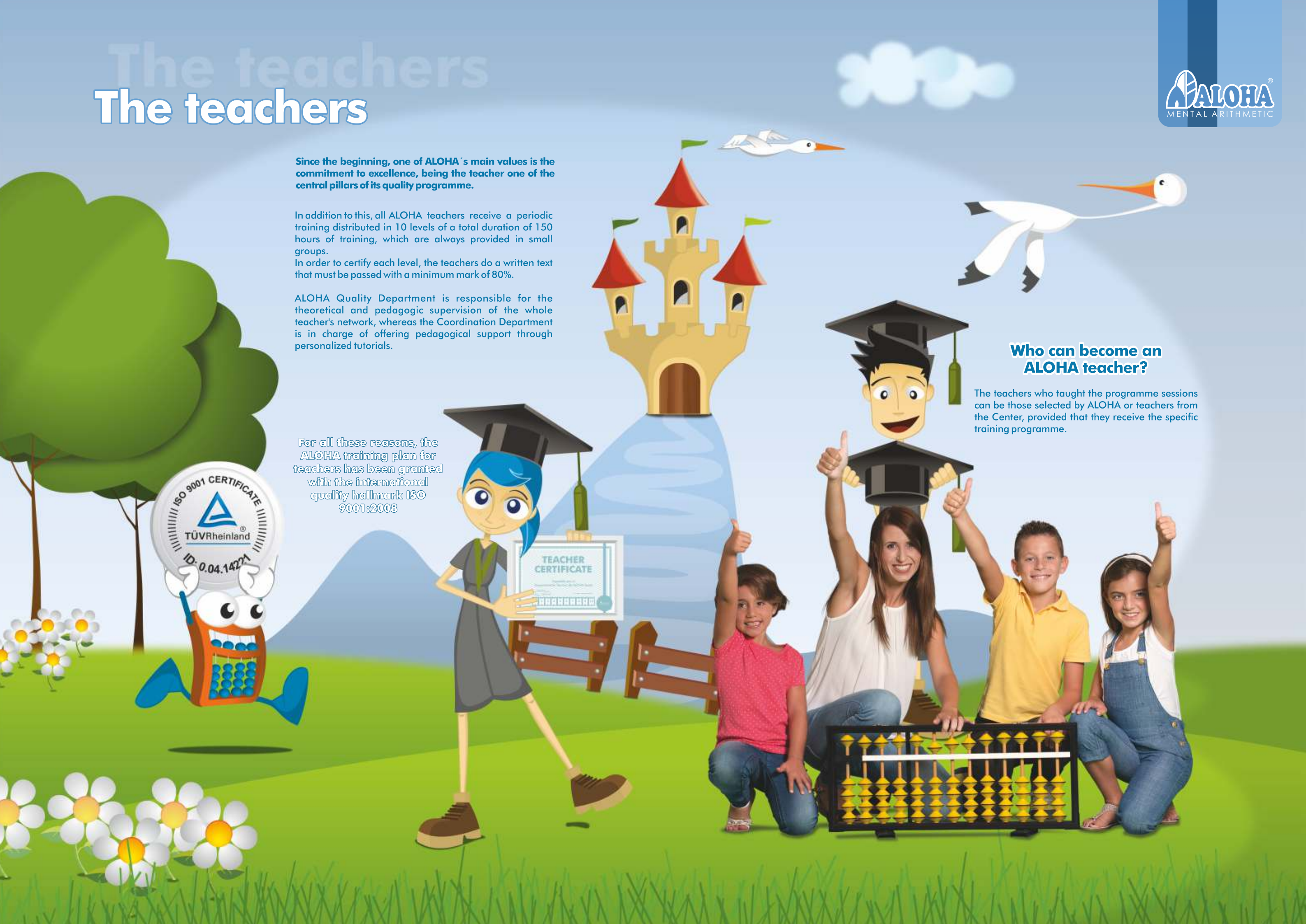
In order to certify each level, the teachers do a written text that must be passed with a minimum mark of 80%.

ALOHA Quality Department is responsible for the theoretical and pedagogic supervision of the whole teacher's network, whereas the Coordination Department is in charge of offering pedagogical support through personalized tutorials.

For all these reasons, the ALOHA training plan for teachers has been granted with the international quality hallmark ISO 9001:2008

Who can become an ALOHA teacher?

The teachers who taught the programme sessions can be those selected by ALOHA or teachers from the Center, provided that they receive the specific training programme.



Why ALOHA?

1

Children prepared for the future

Our society is becoming increasingly complex and competitive, so it is fundamental to provide children with essential tools and strategies to face the changes and challenges of the future.

2

Global reference

ALOHA Mental Arithmetic was created in 1993 and it has Centers in more than 30 countries within the 5 continents reaching 250.000 students around the world.

3

In Spain since 2009

More than 15.000 Spanish students benefit from the programme every year in each of the 500 School Centers where it is taught.

4

Commitment to quality

ALOHA Mental Arithmetic has been granted with the international quality hallmark ISO 9001:2008

5

The teacher's profile

The ALOHA Teachers are one of the focal points of our company. All ALOHA Teachers are thoroughly recruited and after that they shall receive and pass the ALOHA special training which has been granted with the certification ISO 9001:2008.



6

Much more than an abacus

ALOHA students do not only improve their calculation skills, but they develop other skills of such importance as self-confidence, attention and concentration, resolution capacity...

7

Own scientific reports

ALOHA has its own scientific reports demonstrating that their students enhance their skills and improve their academic performance.

8

Fun-filled and encouraging

John Neuron, the motivation medals, the championships, Dr. Distraction, the classroom games, the family activities... ALOHA universe is conceived to connect with the students, the parents and the teachers.

9

Satisfied parents and children

According to the satisfaction questionnaires, more than 92% of parents confirm to be happy with the programme and 91% of children claim to have fun during ALOHA sessions.

