DISCOVER THE UNIVERSE WITH PIPO
HAVE FUN AND LEARN WHILE TRAVELING THROUGH SPACE

ÍNDICE

www.pipoclub.com
Check Pipoclub on the Internet for up-to-date information about the collection.
Free games!

SAVE THE FORESTS!
Pipo recommends that you don't print the whole guide unless it is necessary.

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**General Introduction**

**Discover the Universe with Pipo**

Discover the Universe with Pipo is a program that takes children on a voyage through space in a simple, fun and hands-on way. In Pipo and Cuca’s spaceship they take off from Earth to go to the Moon, the Solar System, the Galaxy and the furthest limits of the Universe to discover the secrets of the stars.

It is aimed at children between **5 and 12 years**. Nevertheless, the easier levels of some of the games will be very satisfying for **4 year olds**, especially the puzzles, match pairs, join-the-dots, or coloring activities. Other activities can be useful for **adults** who want a very simple introduction to astronomy. This product can be adapted according to the ages, needs, and capacities of the users.

The program is structured into **55 different activities** and broken down into **11 topics**, each with experiments and information to help the user understand astronomy: the constellations, the rotation of the Earth, the Moon, etc.

These topics are grouped into **2 sections**: the **zoom panel** (which covers the first eight topics) and the **Astronomer’s notebook** (which covers the last three topics).

The **duration** of each game varies according to the speed of learning and the motivation of the child. In addition, some games have various **levels** of difficulty. There is no time pressure and the child can interrupt and leave the game at any time.

The games are very **stimulating** and capture the child’s interest quickly. Even where the learning content may be more advanced, the child can still have fun with the games and will gradually absorb the contents and the skills.

**For Parents and Teachers**

Pipo is designed so that the child can interact with the computer as if it were a toy. It is very important that the child is free to explore and investigate, discovering all the possible options of the game for themselves, as this is more motivating and interesting and the child learns more.

The game offers the possibility of playing in **three different languages**: Spanish, English and Catalan, in this way allowing the child to have a basic knowledge of other languages apart from their own. For the very small up to four years old it is recommended for them to play in their own maternal language or at least until they
become familiar with the game. It is especially useful for children who are learning a second language.

The games count the hits and misses: the points are important as they serve as an incentive to motivate the child to continue playing, making them try harder to improve their learning, but you must keep in mind that they are not significant in themselves.

The majority of the games have various levels of difficulty, which allows children, parents and users to adapt the game to the user’s degree of learning and to move up the levels as they grasp the contents.

This new edition of the product contains the new learning objective (see page 24). This motivates children a lot as they can see their progress in a fun way.

We recommend that the child does not try the “Astronomer’s test” more than once a day since it is not good to spend more than one hour in front of the computer (depending on the age of the user we advise a maximum period of between 30 and 60 minutes).

HELP BUTTON

In all the games you can press on the ‘Question mark’ key to get a summary of how the game works. You can also go at any time to General Help. This consists of the following parts:

- How does the program work.
- Games.
- General.
- Tips for learning.

TO START

Once you insert the CD, the program will ask if you want to see the demos, the learning guide, or start playing.

The child should write his or her name twice to avoid errors.

Help. Gives a brief rundown of the functions of the game, from here you can access the general helpline where you can consult useful guidelines for parents and teachers.

Summary. A general visit to all the contents.
Languages. You will be able to change language and play in Spanish, Catalan or English.

A visual up-date of the child’s progress.

Access to the configuration screen.

To leave the product from any place and any time:
Windows users: click Alt + F4 at the same time.
Mac users: click the Apple symbol + Q at the same time.

PIPO AND CUCA’S SPACESHIP

Once you press “PLAY”, you will go to Pipo and Cuca’s Spaceship. The player’s mission is to explore the Universe.

The program is divided into 11 topics. Once you have chosen the topic, you go to the main explanation of that topic with the relevant games and interactive activities where you can put your knowledge into practice.

1. Constellations
Northern and Southern Celestial Hemispheres, the Zodiac.

2. The rotation of the Earth
Day and night, geometrical concepts.

3. The Moon
The visible face of the Moon, tides, eclipses.

4. The Earth’s orbit
The seasons and the calendar.

5. The Solar System
The Sun and the planets.

6. The Oort cloud
Comets, asteroids and meteorites.

7. The Galaxy
The Milky Way, types of galaxies, the life and death of a star.

8. The Universe
The size of the Universe, types of stars, and other bodies in the Universe.

9. Notes on the history of astronomy
Brief history of well-known people and some amazing facts about astronomy.

10. Hints and tips for young astronomers
Hints and tips to help your observations of the night sky.

11. Spaceships
A summary of the most important spaceships.

THE ROBOTS

In all the screens of the game you will meet the reconnaissance robots. You will need to activate them, as at first they are inactive. To activate them, click on them one by one and listen to the information they give. You must listen to all the explanation for them to stay activated.

We suggest you activate the robots in the sequence suggested by the program so as to introduce the new concepts in the clearest way. First find the robot that is
moving and listen to all that it has to say. Then continue with the next one that is moving. When you click on a robot an explanation box will appear in the lower part of the screen. Click on this to make it disappear or click on another inactive robot. The number of robots you have activated in each screen will determine whether or not you can play the “Astronomer’s Test” for that topic. The default setting is that you must activate 90% of the robots to play the Test. You can change this value in the configuration screen (check at the end of the page.).

**Topic Diploma:** when you have solved all the activities of the topic (games and explanations) you will receive the diploma of the topic. The diploma includes the date on which you received it, which will be shown when you print it.

**HOW TO GET MONEY**

To get money you have to solve 100% of each game. For each level you solve, you will receive one coin.

You can store all the money you get as you solve the different levels of the game in a piggy bank. You can click on it to go to the orbit shop.

**SUMMARY**

Here you will get a global overview of the whole product.

Click on the arrows to see the different topics.

Scores.

Configuration.

Exit.

**CONFIGURATION**

Clicking the configuration button takes us to the configuration screen where you can change the following things:

**NORTHERN OR SOUTHERN HEMISPHERE**

Choose the default setting for the Hemisphere: North or South. This affects the following games: find the constellations, orbit, seasons and calendars.

**ROBOTS**

The number of robots needed in each topic to play the Astronomer’s Test. The default setting requires you to activate 90% of the robots to be able to go to the Astronomer’s Test. However, you can change this figure whenever you want.
PIPOCLUB.COM
Option to connect to the Internet: To allow or not the connection to Internet to visit www.pipoclub.com.

PRINTER
You can also activate or deactivate the printer. If you don’t want to print the diploma or the score screen, deactivate the button.

To avoid young children using the button by mistake we recommend that you only turn it on when you need to.

Remember that to save our planet you should use as little paper as possible.

Here you can change the Hemisphere in which you are playing.

Internet access.

Here you can set the number of robots required (in each topic) to access the Astronomer’s Test.

Are you allowed to print?

TOUR 1: THE CONSTELLATIONS

“Hemisphere” button: to change the hemisphere (North or South).

“Telescope” button: To see the constellations in a clear and fun way.

“Lines” button: to hide or show the imaginary lines that form a constellation.

“Rotation” button: to rotate the celestial sphere so you can see how the stars move.

Main explanation: in this screen the robots will show you everything you need to know about the constellations. First click on the robots in turn and listen to their explanations. Then play the games on this topic.

Rectangular buttons: games.

Rounded buttons: access to additional explanations.

“Lines” and “telescope” buttons.

“Hemisphere” and “rotation” buttons.

“Diploma” button and "piggy bank" button.

Topic Diploma: when you have solved all the activities of the topic (games and explanations) you will receive the diploma of the topic, which you can print.

Topic activities:

Extra explanations: how to find the constellations and the signs of the Zodiac.

Games (from left to right): stickers, find the constellations, join stars, puzzles and the astronomer’s test.

HOW TO FIND THE CONSTELLATIONS

Extra explanation: Pipo gives advice on how to find the constellations that are the easiest to recognize in the night sky. Each robot explains how to find one constellation. You can click on the names or click on the robots.

Look here in order to orientate yourself when you look at the sky.

Vault: this shows you whether the constellation is in the northern or southern celestial Hemisphere.

Click on the robots or their names to hear the explanations.

“Arrows” buttons: to see other constellations.
THE SIGNS OF THE ZODIAC

Extra explanation: Did you know that there is a constellation for your Zodiac sign? There is one for each month of the year. Here the robots and Pipo tell you interesting things about the Zodiac and the constellation model for each month.

Click on the robots to hear Pipo’s explanations.

Move the mouse over each constellation and you will see the month to which it corresponds.

STICKERS OF THE ZODIAC

Learning aims:
To remember the constellations of the zodiac.
Use pictures to help with remembering their shape and place.

How is it played?
You have to place the constellations that Pipo names in their corresponding place.

If you move the mouse to the left or right edges of the screen you can access more constellations, to find the one you are looking for.

"Level" button.
Hits and misses.

There are 4 levels in this game:
Level 1: You have to match six nearby constellations. When you find yourself in the same zone, you mustn't move the background. You can use the silhouettes and the names to help you.
Level 2: You have to match 12 constellations in fours. When you finish the 4, they will disappear and you begin again. To do this, you will have to move to the constellations beyond the margins. You still have the help of the silhouettes and the names.
Level 3: You have to match 6 nearby constellations you mustn't move the background. There is no help.
Level 4: You have to match 12 constellations in fours. When you finish the 4, they will disappear and you begin again. There is no help.

PLACE THE CONSTELLATIONS

Learning aim:
Learning the constellations: their names, forms and locations.

How is it played?
Place the constellation in its appropriate place.

S K I L L S
Image association
Visual memory
Visual distinction
Hand-eye coordination
General spatial perception
Concentration and attention

S K I L L S
Image association
Fine motor skills
Visual distinction
Recognition of shapes
General spatial perception
Concentration and attention
There are 5 levels in this game:

**Level 1**: With help. You see all the constellations and the 5 that you have to place are marked in blue.

**Level 2**: Same as before, but from this level onwards the sphere turns.

**Level 3**: Some constellations are marked to help you orientate yourself. Also, you can click on the “life buoy” button to see the rest of the constellations.

**Level 4**: The constellations are not marked, but you can still use the “life bouy” button to see them.

**Level 5**: The constellations are not marked and this time the “life bouy” button only shows a few constellations that you can use to orientate yourself.

**Learning aims:**
Learning the constellations: their names, forms and locations.

**How is it played?**
You have to find and click on the constellation requested.

- **“Loudspeaker” button**: to repeat the announcement.
- **“Level” button**.
- **“Help” button**.
- **“Life bouy” button**.

There are 5 levels in this game:

**Level 1**: With help. You see all the constellations and the 5 that you have to place are marked in blue.

**Level 2**: Same as before, but from this level onwards the sphere turns.

**Level 3**: Some constellations are marked to help you orientate yourself. Also, you can click on the “life buoy” button to see the rest of the constellations.

**Level 4**: The constellations are not marked, but you can still use the “life bouy” button to see them.

**Level 5**: The constellations are not marked and this time the “life bouy” button only shows a few constellations that you can use to orientate yourself.

**Skills**
- Visual distinction
- Hand-eye coordination
- General spatial perception
- Concentration and attention

**Skills**
- Visual distinction
- Hand-eye coordination
- Spatial orientation
- Fine motor skills
- Recognition of numbers and numerical sequences

**Join the stars**

**Learning aims**:
- Understanding the mythology and history of various representative constellations.
- Recognition of numerical sequences.

**How is it played?**
Join the stars in order and you will discover the hidden constellation. There are 11 to make.
**THE PUZZLES**

**Learning aims:**
- Strengthen attention span and concentration.
- Increase perception and visual memory.
- To make easier learning the constellations.

**How is it played?**
Complete the puzzle with the pieces on the right side of the screen. Select the one you want. Click on the piece to pick it up and click again on where you want to place it.

There are 2 levels in this game:
- **Level 1**: Complete the puzzle fitting the pieces onto the gray background as help.
- **Level 2**: Complete the puzzle. If you need help, click on the “life bouy” button.

**THE ASTRONOMER’S TEST**

**Learning aims:**
- Develop reading skills.
- Acquire and reinforce your understanding of the contents.
- Learn to choose the correct response from different options.

**How is it played?**
Read carefully the question that appears in the sky and choose the correct answer from three options.

If you can’t answer a question you can go back to the screen to look for the answer. Then you can return to the test to try again. If you get any of the questions wrong, it will appear again at the end of the test.

As you answer the questions correctly, the rocket will become ready for takeoff.

When you first reach the main screen of the topic, the test button is gray. You cannot use it until you have listened to a certain number of robots. This is set at 30%, but you can change it on the configuration screen.
**TOPIC 2: THE ROTATION OF THE EARTH**

*Main explanation:* This is an explanatory screen about the rotation of the Earth. It covers important concepts such as: the Earth’s axis, day and night, sunrise, sunset, the direction of rotation, etc.

**Animation control panel:** to make the Earth rotate, pause the rotation or go step-by-step to the left or right.

**Extra explanation:** Listen carefully to what Pipo tells you. You have to look for geometric concepts like the Northern and Southern Celestial Hemisphere, orbit, longitude, latitude, axis, the equator, spheres, parallels, circumference, the Northern and Southern Hemisphere, ellipse, poles… Understanding them will help you a lot because they appear in many topics.

**Games:** stickers of geometric concepts and find geometric concepts.

**GEOMETRIC CONCEPTS**

*Extra explanation:* Listen carefully to what Pipo tells you. You have to look for geometric concepts like the Northern and Southern Celestial Hemisphere, orbit, longitude, latitude, axis, the equator, spheres, parallels, circumference, the Northern and Southern Hemisphere, ellipse, poles… Understanding them will help you a lot because they appear in many topics.

**Games:** stickers of geometric concepts and find geometric concepts.

**STICKERS OF GEOMETRIC CONCEPTS**

*Learning aims:* Understand the concepts that appear through the topics and reinforce your learning. Helps build up new vocabulary with the help of pictures.

*How is it played?* Take the stickers that appear at the right of the screen moving the mouse over it and then stick it in the correct place. To drop it, click again on the correct place. When the geometric object appears, you will hear a short explanation on what it is.

*"Loudspeaker" button:* to repeat the announcement.

*"Help" button.*
FIND GEOMETRIC CONCEPTS

**Skills**
- Image association
- Visual and verbal memory
- Visual distinction
- Hand-eye coordination

**Learning aims:**
Distinguishing the concepts that appear through the topics. Develop attention span, memory and concentration.

**How is it played?**
Listen carefully to what Pipo is asking for and help him to find it. When the geometric object appears, you will hear a short explanation on what it is.

"Loudspeaker" button: to repeat the announcement.
"Help" button.

There are 2 levels in this game:
- **Level 1:** You have to click on the concept requested. To help you there are five images in color, the rest are in gray.
- **Level 2:** You have to select the concept requested, but without help. All the images are in gray.

NIGHT AND DAY

**Skills**
- Visual memory
- Hand-eye coordination
- Spatial orientation
- Abstract reasoning
- Conceptual understanding

**Learning aims:**
Distinguishing sunrise, sunset, Northern and Southern Hemispheres, the tropics and equator. Know where to place objects according to the concepts of the topic.

**How is it played?**
You have to select the vehicle Pipo ask you for and find it on the globe.

Click on the cameras to change the point of view with which you see the Earth at any given moment.

There are 3 levels in this game:
- **Level 1:** You play with the concepts: sunrise, sunset, night, and day.
- **Level 2:** You play with the concepts: Northern Hemisphere, Southern Hemisphere, and the equator.
- **Level 3:** You play with the concepts: tropic of Cancer, tropic of Capricorn, North Pole, South Pole, and the equator.

MAKE PAIRS

**Skills**
- Image association
- Visual memory
- Visual distinction
- Hand-eye coordination
- Graphic spatial perception
- Concentration and attention

**Learning aims:**
Develop memory, attention span and concentration. Associate the words with his pictures.

**How is it played?**
Click on the windows of the spaceship to uncover them and discover the pictures. You have to look for matching pictures and make pairs. Two people can play. The one who has the most lightbulbs lit up wins.

The concepts that appear are different depending on the topic.
There are 2 levels in this game:
**Level 1:** You have to match only 6 pairs.
**Level 2:** You have to match 9 pairs.

**COLOR THE PICTURE**

**Skills**
- Concentration and attention
- Association and recognition
- Fine motor skills
- Hand-eye coordination
- Color discrimination

**Learning aims:**
- Recognise the colors (by sight and sound).
- Stimulate the artistic capacity of the child.

**How is it played?**
Consists in colouring in the scene. You must click on the colour you want to use to colour in and then click on the part of the drawing you want to color.

The characteristics of this game, make it very suitable for the smallest children.

**TOPIC 3: THE MOON**

**Main explanation:** In this screen Pipo will show you all the aspects essential to understanding the Moon: its phases, the force of gravity, the surface... as well as explanations of tides, eclipses, and lunar landings.

**Animation control panel:** To start the Moon moving (Play) or stop it (Stop) and see how the Moon travels around the Earth.

**Here you can see the different phases of the Moon.**

We advise to activate the robots before playing the games on this topic.

**Topic activities:**

**Extra explanations:**
- Tides, solar eclipses, lunar eclipses
- And the visible face of the Moon.

**Games** (from left to right):
- Phases of the Moon
- Make pairs (see page 11)
- Colouring (see page 11)
- The test (see page 9)
THE TIDES

*Extra explanation:* Do you know what a tide is and where it comes from? When they happen and why? And the difference between spring tides and neap tides? Activate the robots and listen to Pipo’s explanations.

Here you will see a high or low tide, by night and by day.

"Help" button.

SOLAR ECLIPSES

*Extra explanation:* In this screen Pipo will explain all the essential concepts needed for understanding solar eclipses: the definition, types, duration...

Animation control panel: to make the Moon move (Play) or stop it (Stop). Watch how the Moon hides the Sun and causes its eclipse.

The camera shows us how the different stages of a solar eclipse looks from the Earth.

LUNAR ECLIPSES

*Extra explanation:* In this screen Pipo shows you all the essential concepts you need to know about eclipses of the Moon: the definition, frequency, duration and the red Moon.

Animation control panel: to make the Moon move (Play) or stop it (Stop) and watch how the Earth hides the Moon and causes a lunar eclipse.

The camera: shows us how the different stages of a lunar eclipse looks from the Earth.

THE VISIBLE FACE OF THE MOON

*Extra explanation:* Pipo shows us the different regions of the Moon in this screen. The dark regions are called seas even though they don’t have any water: they are flat areas with very few craters. The brighter areas are craters. We also know some of the mountain ranges on the surface of the Moon.

Game: to land the spaceship.
**LAND THE SPACESHIP ON THE MOON**

**How is it played?**
You have to land the spaceship on the appropriate part of the Moon. There are 2 modes of playing the game:

**Mouse mode:** you have to click on a zone to land.

**Keyboard mode:** you use the controls of the screen or, even better, the computer keyboard: the arrows to steer the spaceship and the space bar to land it.

There are 4 levels in this game:

- **Level 1:** The 8 most well-known zones; they are marked with lights on the surface of the Moon.
- **Level 2:** The same zones as in level 1, but without the markings.
- **Level 3:** All the zones; with the lights help.
- **Level 4:** All the zones, without help.

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**THE PHASES OF THE MOON**

**Learning aims:**
Learning the different stages and phases of the Moon.

**How is it played?**
You have to click on the Moon that is in the phase that Pipo tells you.

There are 3 levels in this game:

- **Level 1:** You have to play with only the four most important phases of the Moon: new, developing crescent, full, and closing-down crescent.
- **Level 2:** As well as the four previous phases, you now play with the gibbous and crescent Moons. You still have the help of the camera.
- **Level 3:** You have to select the Moon that is found at the beginning, end, and during a lunar eclipse, the developing crescent, the closing-down crescent, or at the beginning, end, and during a solar eclipse. You have the help of the camera.
- **Nivel 4:** You revisit the concepts from level 2 without help.
- **Nivel 5:** You revisit the concepts from level 3 without help.

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**TOPIC 4: THE EARTH’S ORBIT**

*Main explanation:* In this screen Pipo shows you all the important features of the Earth’s orbit and the seasons: their origins, spring, summer, autumn, winter, the equinox and solstice.
TOPIC ACTIVITIES:

Learning aim:
Relate the movement/rotation of the Earth to the seasons and the months.

How is it played?
You have to click on the Earth that is in the season that Pipo says.

There are 2 levels in this game:
Level 1: You learn the equinoxes of spring and autumn and the solstices of winter and summer.
Level 2: As well as those mentioned, you will play with the four seasons.
Level 3: Se repasan los conceptos del nivel 1 sin ayuda.
Level 4: Se repasan los conceptos del nivel 2 sin ayuda.

THE SEASONS

Learning aim:
Relate the movement/rotation of the Earth to the seasons and the months.

How is it played?
You have to click on the Earth that is in the season that Pipo says.

If you pass the mouse over the positions of the Earth you will see the season and its name in the box.

"Level" button.

The default setting is for the Northern Hemisphere.
To play with the southern hemisphere, access to configuration (see page 5).

There are 2 levels in this game:
Level 1: You learn the equinoxes of spring and autumn and the solstices of winter and summer.
Level 2: As well as those mentioned, you will play with the four seasons.
Level 3: Se repasan los conceptos del nivel 1 sin ayuda.
Level 4: Se repasan los conceptos del nivel 2 sin ayuda.

THE CALENDAR OF THE SEASONS

Learning aims:
Differentiating the four seasons of the year in each Hemisphere.
Get to know the order of the seasons depending on the hemisphere.

How is it played?
You have to complete the calendar by sticking the cards in the center where they belong. Remember that the seasons in each Hemisphere are the opposite of one another.

"Loudspeaker" button: to repeat the announcement.

"Level" button.

There are 3 levels in this game:
Level 1: Place the cards with the help of the gray background.
Level 2: Now you don’t see the drawings, but there’s an optional help (yellow question).

Level 3: There is no help at all.

## The Calendar of the Months

### Skills
- General spatial perception
- Rough motor skills
- Image association
- Visual memory
- Visual distinction
- Hand-eye coordination
- Spatial orientation
- Abstract reasoning
- Concentration and attention
- Temporal organization

**Learning aims:**
Learning the months of the year and the three-monthly seasons with help of images. Remember the order of the months and the seasons.

**How is it played?**
The game consists of putting each card in the correct place.

There are four seasons in each year and each one lasts three months. You have a calendar for each Hemisphere. The default setting shows the Northern Hemisphere. If you want to change this to the Southern Hemisphere, you have to access to configuration (page 5).

A picture that represents the month you have to place.

The Hemisphere in which you are playing.

There are 2 levels in this game:
- **Level 1:** In order to help you, the drawings are shown in gray.
- **Level 2:** Without help. The drawings are not shown in the background of the frame.

## The Puzzle of the Months

### Skills
- Rough motor skills
- Image association
- Visual memory
- Visual distinction
- Hand-eye coordination
- Temporal organization
- Concentration and attention

**Learning aims:**
Learning the months of the year and the three-monthly seasons. Remember the order of the months and the seasons.

**How is it played?**
Complete the puzzle by putting the pieces in the correct order. For this, you have to click on one of the pieces and put it in the empty place.

The default setting shows the Northern Hemisphere. If you want to change this to the Southern Hemisphere, you have to access to configuration (page 5).

### Main explanation:
In this topic you will learn the most interesting concepts about our Solar System: the orbits of the planet, the shapes of asteroids…

Animation control panel:
- to make the planets turn through days, months or years (Play) or to stop them (Stop). If you want to see them move step-by-step, use the side buttons.

Listened robots counter.
Summary sheet
This page summarizes all the information about the Sun and the planets of the Solar System. It includes information such as the diameter of the equator, the mass, the average distance of each planet from the Sun, the rotation period… You can print it so that you can color it in and look up the information whenever you want.

THE SUN

Extra explanation: Pipo gives a review of the components and essential elements of our most important star, the Sun. The button for the game is in the lower part of the screen.

STICKERS OF THE PARTS OF THE SUN

Learning aim:
Learning the different parts of the Sun and its location.

How is it played?
You have to complete the illustration by fitting the shapes or figures into the correct place.

"Loudspeaker" button:
to repeat the announcement.

Important warning button: Take care with the Sun.

These are the zones of the Sun that you should know.

Hits and misses.

CARDS OF THE SUN

Learning aim:
Learning the different parts of the Sun and its location.

How is it played?
Consiste en colocar cada tarjeta donde corresponda. Las tarjetas irán apareciendo por la parte derecha de la pantalla. Para colocarla pulsa sobre el recuadro correspondiente. Si la respuesta es correcta quedará pegada, si no lo es, se contabilizará un error.
**Extra explanation:** In this topic you will learn the planets of our Solar System and the differences and similarities between them. The robots will give you the most important information on each one. The buttons for the games are in the lower part of the screen.

**Games:**
the stickers of the planets and the photos of the planets.

**Learning aims:**
Knowing the planets in our Solar System, their size and its symbol.

**How is it played?**
The game consists in putting each planet in its place. While you solve the game, you will hear various bits of information on each planet.

- Put each planet in its place.
- "Loudspeaker" button: to repeat the announcement.

It is like a game of stickers and, as it is so simple, even the youngest children will be able to solve it by trial and error.

**Skills**
- Rough motor skills
- Association
- Visual and verbal memory
- Visual distinction
- Hand-eye coordination

**The Photos of the Planets**

**Learning aims:**
Differentiating and placing each planet in its orbit and correct position. Distinguish between the inner and outer planets.

**How is it played?**
You have to place the photos of the planets on the correct orbit.

- Pick up the photo by clicking on it and click again in the place you want to stick it.
- "Level" button and "loudspeaker" button.

**Skills**
- Rough motor skills
- Association
- Visual memory
- Visual distinction
- Hand-eye coordination
- Abstract reasoning
- Spatial perception

**Stickers of the Planets**

**Learning aims:**
Knowing the planets in our Solar System, their size and its symbol.

**How is it played?**
The game consists in putting each planet in its place. While you solve the game, you will hear various bits of information on each planet.

- Put each planet in its place.
- "Loudspeaker" button: to repeat the announcement.

Here you can see the distance of each planet from the Sun.

**Skills**
- Rough motor skills
- Association
- Visual and verbal memory
- Visual distinction
- Hand-eye coordination
- Abstract reasoning
- Spatial perception

**Stickers of the Planets**

**Learning aims:**
Knowing the planets in our Solar System, their size and its symbol.

**How is it played?**
The game consists in putting each planet in its place. While you solve the game, you will hear various bits of information on each planet.

- Put each planet in its place.
- "Loudspeaker" button: to repeat the announcement.

Here you can see the distance of each planet from the Sun.

**Skills**
- Rough motor skills
- Association
- Visual and verbal memory
- Visual distinction
- Hand-eye coordination
- Abstract reasoning
- Spatial perception
There are 4 levels in this game:

**Level 1**: You have to place the photos of the Inner planets: Mercury, Venus, Mars, and the Earth.

**Level 2**: You have to place the photos of the Outer planets: Saturn, Jupiter, Uranus and Neptune.

**Level 3**: You have to place 5 random photos.

**Level 4**: You have to place the photos of all eight planets.

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**STICKERS OF THE SOLAR SYSTEM**

**Learning aims:**
Locate and distinguish the planets from our solar system and its orbits.

**How is it played?**
The game consists of putting each planet in the correct place. As it is so simple (matching shapes) even the youngest children can solve it easily.

**Skills**
- Rough motor skills
- Association
- Visual and verbal memory
- Visual distinction
- Hand-eye coordination
- Abstract reasoning
- Espatial perception

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**TOPIC 6: THE OORT CLOUD**

*Main explanation:* Activate the robots in this screen and they will give you essential information about comets, asteroids and meteorites.

**Animation control panel:**
- to see the comet’s journey (Play) or to stop it (Stop).
- If you want it to travel step-by-step, use the side buttons.

**Topic activities:**

**Extra explanation:**
- showers of shooting stars.

**Games** (from left to right): stickers of a comet, make pairs (see page 11), colouring (see page 11) and the test (see page 9).

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**SHOWERS OF SHOOTING STARS**

*Extra explanation:* This section tells you information about showers of shooting stars: why they happen, which are the most important and what shooting stars are

**Game:**
- place the cards.
- “Help” button

**Check out this animation to see how a shower of shooting stars looks from Earth.
**LEARNING AIMS:**
Discriminating visually and verbally the different parts that make up a comet.
Learn what happens during meteor showers.

**How is it played?**
You have to put each card in the correct place. The cards appear on the right side of the screen. Click on the appropriate square to place the card. If you get it right, the card will stay in place, if not it will count as a mistake.

**THE PARTS OF A COMET**

**LEARNING AIM:**
Discriminating visually and verbally the different parts that make up a comet.

**How is it played?**
You have to put the different parts of a comet as well as other elements in the correct place in the illustration.

**TOPIC 7: THE GALAXY**

**Main explanation:** the Galaxy is an essential topic in astronomy. You should get to know the Milky Way, the types and parts of a galaxy, the nucleus of a galaxy, its movements, etc, to help you understand the many concepts you will come across in this topic.

**TOPIC ACTIVITIES:**

**HABILIDADES**
Distinction
Organization of information
Concentration and attention
Long-term and short-term memory

**SKILLS**
Rough motor skills
Association
Visual distinction
Hand-eye coordination
Graphic and general spatial perception

**HABILIDADES**
Distinction
Organization of information
Concentration and attention
Long-term and short-term memory

**SKILLS**
Rough motor skills
Association
Visual distinction
Hand-eye coordination
Graphic and general spatial perception

**EXTRA EXPLANATION:**
the lives of the stars.

**GAMES (FROM LEFT TO RIGHT):**
stickers of types of galaxies, make pairs (see page 11), colouring (see page 11) and the test (see page 9).
LIVES OF THE STARS

*Extra explanation:* here you will learn the different stages a star passes through from its birth to its death.

**Game:**
stickers of live and death of a star.

By clicking on the robots you will see the different phases in the birth and death of a star: nebula, condensation, main sequence, giant and supergiant, supernova and white dwarf.

LIFE AND DEATH OF A STAR

**Learning aims:**
Understanding and distinguishing the different parts or phases in the life and death of a star.

**How is it played?**
The game is based on putting the images, representative of each phase, in the correct place.

"Loudspeaker" button, to repeat the announcement.
"Level" button.
"Life buoy" button.

There are 3 levels in this game:
**Level 1:** To help you the drawings are shown in gray.
**Level 2:** You don’t have the help of the drawings; you have to place the images with the help of the text. But you can still use the “life buoy” button if you need help (it will show you the images in gray in each frame).
**Level 3:** There is no help of any kind. You have to place all the images that represent the phases of the birth and death of a star.

TYPES OF GALAXIES

**Learning aims:**
Discriminating the different parts of a galaxy and the types that exist.

**How is it played?**
You have to fit the pieces to complete the picture: a classic game of fitting shapes.

"Loudspeaker" button.
"Help" button.
Place each galaxy in the correct place.
**TOPIC 8: THE UNIVERSE**

*Main explanation:* In this screen the robots will show you everything you need to know about the Universe at a general level.

*Extra explanations and games of the topic.*

**TOPIC ACTIVITIES:**

*Extra explanation:* In this screen you can learn about the different types of stars, their colors, brightness, magnitude...

*Game:* Stickers of types of stars.

**TYPES OF STARS**

*Extra explanation:* In this screen you can learn about the different types of stars, their colors, brightness, magnitude...

**Skills:**
- Rough motor skills
- Image association
- Visual and verbal memory
- Visual distinction
- Hand-eye coordination
- Abstract reasoning
- Graphic spatial perception

*Learning aim:* Visually and verbally distinguishing diverse types of stars.

*How is it played?*
You have to fit the pieces to complete the illustration: a classic game of fitting figures or shapes.

"Loudspeaker" button: to repeat the announcement.

"Help" button.

Place each star in the appropriate place.

Hits and misses.

This is the best game for the youngest players, given the simplicity of the game. It's just a classic game of fitting shapes.

**THE SIZE OF THE UNIVERSE**

*Learning aim:* Learning where the Earth is within the Universe and the size of the Universe.
How is it played?
The game is based on putting each image in its proper place, from those closest to the Earth to those furthest, in the order that they should be read.

There are 3 levels in this game:
Level 1: To help you the drawings are shown in gray.
Level 2: You don’t have the help of the drawings; but you still have the help of the text. However, you can use the “life buoy” button to show you the images in gray.
Level 3: There is no help of any kind. You have to place all the images.

THE ASTRONOMER’S NOTEBOOK

From the Astronomer’s Notebook you can access the topics: Notes on the history of astronomy, Spaceships and Hints and tips for young astronomers. These have been grouped together in the notebook because they are more theoretical than practical.

TOPIC 9: HINTS AND TIPS

Main explanation: Here you have very practical advice to bear in mind when you are observing the night sky.

Games (from left to right): stickers of hints and tips, find hints and tips, make pairs (see page 11) and the test (see page 9).

STICKERS OF HINTS AND TIPS

Learning aim:
Learning the advice on the previous screen.

How is it played?
You have to select a word from the list and place it on the image to which it corresponds. The game is over once you have matched all the illustrations.
Learning aims:
Differentiate different concepts and reinforce learning undertaken. Strengthen attention span, memory and concentration. Learning the advice on observing the sky.

How is it played?
Listen carefully to what Pipo is asking for and click on the illustration used to represent that piece of advice.

"Loudspeaker" button.
"Help" button.

Main explanation: In this topic you will meet the most important spaceships from the space age, learn to recognize them and understand how they work. It focuses on the Saturn V rocket, the MIR space station, the Hubble space telescope, the Voyager space probe and the Apollo XI lunar module.

Games (from left to right): build spaceships, make pairs (see page 11) and the astronomer's test (see page 9).

Learning aim:
Get to know the structure of spaceships.

How is it played?
You have to build five spaceships. The pieces you have to place are on the left side of the screen, in no particular order. Select the one you want by clicking on it, and then click again where you want to place it.
There are 3 levels in this game:

**Level 1**: You are shown the drawing of the spaceship in gray, to help you.

**Level 2**: You no longer see the drawing in gray. However, you can use the “life bouy” button to show you the images in gray.

**Level 3**: There is no help of any kind.

**TOPIC 11: NOTES ON THE HISTORY**

*Main explanation*: This is a general review of the most important people and events in astronomy: early myths, Aristotle, Ptolemy, Copernicus, Kepler, Galileo, Newton, Herschel, Einstein, Galle, Tombaugh, Gagarin, Armstrong, Sputnik, Laika, MIR and Pathfinder.

**Games:**
- stickers
- make pairs (see page 11)
- and the astronomer’s test (see page 9).

Click on the robots or the squares to find out a mountain of things about the history of astronomy.

**HISTORICAL PEOPLE AND EVENTS**

**Learning aim**: Identifying different people and events in the history of astronomy.

**How is it played?**
You have to stick each image in the appropriate place.

There are 2 levels in this game:

**Level 1**: To help you, the drawings are shown in gray.

**Level 2**: You don’t have the help of the drawings; you must place the stickers using only the text.

**SCORES**

The program follows up the progress and scores of each player. This keeps the children constantly motivated to improve and continue playing.
So that the parents and/or tutors can assess the progress, they can look at the score screen where the results for each game are shown. This page can be printed, with the name of the player and the date.

Remember that you can deactivate access to the printer in the configuration screen so that young children don’t press the button indiscriminately and waste paper.

THE SHOP
On this screen all the pieces for the construction of the Spaceship can be purchased. The coins represent the advance and progress of the players in the game, but in a more attractive form, amusing the players confronted with a flat representation of numbers and/or percentage.

It is possible to access to the Shop clicking on the Piggy bank. For this, the player will have to drag the coins from the Piggy bank to the spending machine and introduce them through the slot. After that you will have to select the piece that you wish to purchase using the yellow arrows and clicking the “buy” button.

THE SPACESHIP GARAGE - LEARNING OBJECTIVE
The pieces purchased in the Shop are kept in the space garage. In order to place each piece you must drag it from the bookcase to its corresponding place in the spaceship.

THE GALACTIC ASTRONOMER DIPLOMA
As a reward for so much work and as a way of saying thank you for having helped in the construction of the spaceship, Pipo and the scientist will give you a very special present, the Diploma.

The diploma has the name of the player and the date on which he or she finished the product. You can print it in black and white so that the child can color it.