These are brands of the HABA Family of Companies.

The HABA Digitalwerkstatt (Digital Workshop) is an innovative learning space throughout Germany where children from 6 to 12 years old can playfully discover the digital world and acquire important skills dealing with new technologies. www.digitalwerkstatt.de

These are brands of the HABA Family of Companies.
is children growing up in a supportive environment which encourages them to unfold their inherent talents, because their surroundings have a decisive influence on this development – first the parents and the family, later also daycare, kindergarten and school. If children find a stable basis for their roots, enough stimulation for growth and plenty of room to develop, they can grow up with a joy all of their own.

Our Vision

We believe: All children deserve products that are unique in terms of concept, design, play value and development character. This is why, with our products, we support all educators in creating space to grow. And these educators need experts like you who provide the best educational tools. We support you by building your portfolio with our unique learning resources grown from 80 years' of market-leading experience in Germany and enriched by the profound knowledge of experts from the fields of education and science.

Mission Statement
Holistic Learning Concepts for Exciting Thought Experiments

How Children Develop Skills Through Play

Children today are growing up in a mechanized, automated, and digitalized world. In order to meet these challenges, children need skills such as creative thinking, self-regulation, and individual responsibility as well as the ability to communicate and work together.

Holistic learning concepts, such as Fröbel Materials, Willy’s Number World, Milly’s Learning Zoo, Fex or the language games stimulate children’s imagination, encourage them and strengthen them, and thereby make them fit for the future. They were developed by us in partnership with experts from science and practice. Each learning concept sets priorities and at the same time trains further skills. This supports perception, concentration, stamina, fine and gross motor skills, and creativity, as well as mathematical, linguistic, and social skills.

Cognitive development findings are the basis of all learning concepts: children want to learn and understand phenomena from an early age. To do this, they need cognitively stimulating educational environments that arouse their curiosity as well as individual support and linguistic assistance. Together, let us open up space for this and create learning opportunities. In this way, children can acquire specific skills and learn to think and act independently.

This is the basis for strong personalities, successful team players, and networkers growing and maturing in the 21st century. They can actively and responsibly help to shape the modern world of life and work.

We hope you enjoy putting the holistic learning concepts into action!
Interview
with Prof. Dr. Michaela Rißmann
Professor of “Educational Sciences, Education, and Teaching Children”, Erfurt University of Applied Sciences

Why is education, especially childhood education, so important?

When children are born, they depend on adults and on their love and support to feel well, to feel at ease in a community, and to find their place in life. Due to the constant change in our society, adults need well-founded answers to the question of what they can give to the next generation and how they can support growing children. Education science attempts to understand the processes of education, teaching, and learning in order to provide answers, ideas, and concepts on this basis.

Childhood education, as a young discipline of education science, addresses children and their families. It explores what children and families need and how childcare facilities and other institutions should work so that children can develop well. Childhood teachers have a particular eye on the period of childhood, especially the time from birth to the end of primary school, and are specially trained for this.

What resources does education have available?
The most important “resources” in education are teachers or adult educators in general.

Education is primarily based on structuring relationships and communication. Those who support and understand children’s development can give them suitable development suggestions. Educational support, certain educational concepts, offers tailored to the development and interests of children, and a stimulating learning environment are great ways to do this.
What are the advantages of learning concepts?

Learning concepts developed on a scientific basis have the advantage of covering important areas of development suggestions in a targeted and systematic manner. Good concepts are holistic, so they not only focus on one area of development. As a single teacher, you can’t keep an eye on all these interrelationships and you can’t invent them spontaneously. With suitable concepts, stimulating situations can be created which the children can benefit from. The children and their current interests and questions should always be put front and center.

How can the learning concepts be applied in everyday educational life?

This is not so easy to answer in view of what can sometimes be difficult conditions in childcare facilities. Here it is important that we create the appropriate freedom and time in the team so that we can help each other to enable us to actually implement the learning concepts. Fixed appointments in the daily routine help us to stick to something. The involvement of parents is also absolutely essential.

What recommendations do you have for teachers regarding the implementation of learning concepts?

One central recommendation is that teachers are well acquainted with the concept and thus gain confidence in applying it. It is therefore important to implement the concept as intended by the authors. In this way, teachers learn how everything can be handled and what they need to pay attention to and therefore – quite incidentally – go through a learning process themselves. Afterwards, they can adapt the concept to the conditions in their own facility and let the children explore the materials on their own.

What else needs to be considered?

The most important thing is that the teachers themselves enjoy working with the learning concept. For me, enthusiasm is the key to a successful concept. If you are enthusiastic, you will always find a way to implement the concept. The application of learning concepts depends on the type of interaction with the children. Suitable questions on cognitive activation and space to discover help children in their development.
Development Path of cognitive and mathematical learning

Children are born learners. They are already equipped with cognitive skills when they are born – today we use the terms “competent” and “active infants”. In this respect, research’s view of Piaget’s levels of cognitive development has changed. But one of his findings is valid: cognitive development is not a passive maturation process. Very young children are already actively making the world that surrounds them their own. Children are dependent on contact with other children and caring adults. Thus, learning takes place in a common process of construction. Cognitive development looks at mental structures and processes. It is about the development of thinking, problem-solving, and memory as well as deciding and judging. These processes do not appear immediately, but in certain actions or on the basis of certain “errors in reasoning”. Children’s cognitive and mathematical abilities also vary with context. Thus, some (arithmetical) tasks succeed better in everyday and familiar surroundings than in school settings.

We would like to thank Prof. Dr. Rißmann from Erfurt University of Applied Sciences, professor of “Educational Sciences, Education, and Teaching Children” for her professional support. Support also by: Fröhlich-Gildhoff; Mischo; Castello 2016; Merz; Schmidt 2007; Siegler; DeLoache; Eisenberg 2005; Reiss et al. 2008.

Level 1
Sensumotoric stage (Piaget)

General cognitive development
- Perception-based classification and formation of categories
- Development of object and depth perception
- Forming and remembering simple contexts
- Action-bound dealing with the environment
- Development of object permanence (child recognizes that objects exist, even if they do not see them)
- Spontaneous actions (e.g. sucking, gripping
- Development of schemes (e.g. suction scheme, gripping scheme)

Development of mathematical skills
- Physical and mathematical core competences are available at an early stage or from birth (e.g. solid materials cannot be “penetrated” by others, rudimentary ideas of quantity)

Level 2
Sensumotoric stage (Piaget)

General cognitive development
- More variable and complex exploration and discovery
- Comprehending and imitating simple action patterns
- Initial understanding of cause and effect, of resource/purpose relationships
- As-if games
- Understanding one’s self
- Increase in observational learning of entire courses of action
- Object permanence even with complicated and sequential search actions
- Classification of objects on the basis of the overall shape

Development of mathematical skills
- Simultaneous comprehension of 2 to 3 elements at a glance
- Scheme of comparison (equal – not equal; more – less)
Level 3
Preoperational stage (Piaget)
(approx. 3-6 years)

General cognitive development
- General knowledge of abstract facts
- Better understanding of causal relationships (in everyday, child-appropriate problems)
- Building “dense” knowledge networks in selected areas of interest through suggestions
- Ego-centric speaking (controlling thinking and action through one’s own language)
- Social role playing
- Enhancement of classification skill
- Beginning understanding of class hierarchies (e.g. plant – tree – maple)

Development of mathematical skills
- Simultaneous comprehension of up to 4 elements at a glance
- Decomposition of specific quantities into partial quantities
- Pro-quantitative schemes (e.g. total quantity can be divided into partial quantities among different types)
- Reciting the series of number words from any number onwards
- Adding up two specific quantities by continuing counting
- Cardinal concept (numbers as quantities)
- Initial calculation strategies
- One-to-one assignment of number words to objects, later assignment of a quantity to a number
- Cardinal understanding of numbers (counting specific perceptible objects from the number 1 onwards)
- Schemes of multiplication and reducing
- Numbers are counting numbers

Level 4
Concrete preoperational stage (Piaget)
(approx. 7-12 years)

General cognitive development
- Capable of mental operations
- Insight into quantities, masses, and numbers
- Understanding of the scientific causal concept
- Improvement of verbal memory performance
- Application of memory strategies (e.g. internal repetition, sorting by topics or elaboration, i.e. linking ideas/experiences with the thing to be remembered)
- Development of procedural metacognition (planning, control, and monitoring of memory processes)

Development of mathematical skills
- Transition from counting specific objects to mental counting, where the children imagine numbers as quantities
- Dividing imaginary quantities into partial quantities
- Further development of the number range
- Counting of larger summands
- Dividing a task into two easier tasks
- Different levels of competence from the knowledge of adding (in the number range up to 20) and the basics of multiplication up to content-free calculation in the number range up to 100, half-written calculation in the number range up to 1000, and the application of several basic arithmetic operations in complex situations
From a very early age, children try to understand the world in which they live. The same applies to the digital world. They form preconceptions. These are their attempts to understand in a way that corresponds to their level of understanding and experiences. Not much is known about how to support the development of digital preconceptions into meaningful concepts. One very promising concept, however, in this area is Jerome Bruner’s EIS theory. According to this, knowledge can be represented on different levels – enactive, iconic, and symbolic.

“Computational Thinking” is a key building block for digital learning. Creatively interacting with programming concepts underpins skills with media. It shows that every person who programs also expands what the computer can do. Children can therefore use the computer not just as a means of entertainment, but as a creative tool. Applying and developing algorithms and implementing them in program codes fosters logical thinking. Programming helps children to developing a constructive approach to mistakes, as they learn that identifying and correcting mistakes is an effective way to overcome problems.

Michael Kirch
Professor for Didactics and Pedagogy in Elementary Schools at LMU Munich
Research areas: Media didactics and teacher training

Ute Schmid
Professor of Applied Informatics at the University of Bamberg
Computational thinking is the ability to recognize problems, apply abstract skills, and identify the individual steps needed to solve them. The solution strategy is structured so that it can be implemented by both people and computers.

The Road to Code is fun and teaches exactly the skills that will be useful in a digital world and beyond.

Educational experts are convinced that the changes of our time and in the future will make it more necessary than ever for children to have well-developed basic cognitive skills. Elementary pedagogy lays the foundation for these skills. Playful learning is the basic prerequisite for all learning and educational processes.

On the Road to Code, we introduce children to the exciting digital world. We teach them the fundamental skills that will enable them to understand digital media. Our Road to Code products are very closely geared to the world in which children live and enable them to learn about abstract topics through play. We place emphasis on analog as well as digital play options. Children playfully practice at the same time basic cognitive skills such as logic, spatial awareness, concentration, and abstract reasoning skills. They also learn to plan, carry out, monitor, and optimize their action sequences in the game.

The Road to Code Strengthening basic digital skills

Computational thinking

Playful solution of complex situations

Segmentation

» a complicated task is separated into small, disparate, and solvable problems
» the principle is applied to both everyday tasks as well as when creating an algorithm

Algorithm

» indicates the precise course of action to solve a defined problem
» a problem or a group of problems can be solved by defining the separate stages of a solution, their order, and any dependencies

Pattern recognition

» repetitions and regularities that occur in a large amount of information are recognized
» the features common to all objects in a category are identified and differentiated from the rest

Abstraction

» essential facts in a large group of information is identified
» ignore non-essential details and simplify the problem
» general solution strategies can be developed using the principles of abstraction
Why is computational thinking so important?

A conversation with Prof. Dr. Ute Schmid

Ute Schmid is Professor of Applied Computer Science/Cognitive Systems at the University of Bamberg. With the interdisciplinary elementary computer science research group (FELI), she works to get children of all ages enthusiastic about computer science.

“Computational Thinking” is a key building block for digital learning. By actively examining programming concepts, children have the opportunity to perceive computers not as a medium of entertainment but as a creative tool. Applying and developing algorithms and implementing them in program codes fosters logical thinking. Programming also frequently results in dealing constructively with errors, because children have the positive experience that recognizing and correcting errors leads to successfully solving problems. Too extensive a use of tablets as a learning environment and unaccompanied “coding” hardly help children develop digital self-confidence. Providing analog, concrete, and haptic materials is absolute necessary to make the digital world understandable to children.

Cody & Pixi explain the digital world

Hi, I’m Pixi. My brother Cody and I are really inquisitive, particularly when it comes to computers and smartphones!

Definitely! I always want to know the little details about everything and wonder how a computer would approach a task step by step.

Are you interested? Come with us, and we’ll show you how much fun it is deciphering codes, understanding algorithms, and learning how to program.

In a completely analog way!

Look at the cool products from the new Digital Starter series on the following pages and see for yourself!
Pixi has built a great castle out of colorful blocks. But not only that: she deciphered a mysterious code and worked through one step after the other – like a computer following an algorithm! The codes here do not consist of complicated text commands, but show colored building blocks and their coordinates. So the right building is created very easily! Read the coordinate plan, decipher the arranging codes, and then develop your own code for your building and become a Coding Architect! The three degrees of difficulty will have coding beginners and real pixel pros pondering!

Contents: 31 wooden building blocks, 1 coordinate plan, 30 template cards, 179 coding cards, 1 arranging tray, 6 polybags, 1 set of instructions.

Material: carton, cardboard, wood. Dimensions arranging tray: 26 x 26 x 2,5 cm.

A code is always a secret! It has to be deciphered – and that’s exactly what a computer does! For a computer, codes are certain patterns that a programmer has specified and that the computer follows.

• fosters space and position orientation
• high-quality game material that encourages children to try things out
• getting to know through play how a computer works and the basic principles of computational thinking

Pattern recognition

Templates with varying levels of difficulty

208627 Digital Starter: Coding Architect

Pixi has built a great castle out of colorful blocks. But not only that: she deciphered a mysterious code and worked through one step after the other – like a computer following an algorithm! The codes here do not consist of complicated text commands, but show colored building blocks and their coordinates. So the right building is created very easily! Read the coordinate plan, decipher the arranging codes, and then develop your own code for your building and become a Coding Architect! The three degrees of difficulty will have coding beginners and real pixel pros pondering!

Contents: 31 wooden building blocks, 1 coordinate plan, 30 template cards, 179 coding cards, 1 arranging tray, 6 polybags, 1 set of instructions.

Material: carton, cardboard, wood. Dimensions arranging tray: 26 x 26 x 2,5 cm.
Digital Starter – that’s an innovative game concept that is geared to the world in which we children live and introduces us to how computers work in a totally analog way!

The siblings show the players how a computer converts codes into color images on the screen. Different codes are deciphered row by row and the pixels are placed in the right place. The children then become programmers themselves and develop their own codes! Who can keep track of the tricky codes and place the right image on the colored pixels? The three degrees of difficulty will have coding beginners and real pixel experts pondering!

Contents: 119 pieces: 100 dice with 4 colored, 1 white, and 1 black side, 1 arranging frame, 18 code cards, 1 set of instructions.
Material: real wood, plywood, cardboard. Dimensions arranging frame: 32,9 x 32,9 x 6,3 cm.
What does our morning routine have to do with an algorithm? Cody and Pixi can explain! The two siblings show players that all action sequences – from getting out of bed, to getting dressed, to running off to preschool or school – are carried out according to a logical pattern, just like with a computer. In three games that build on one another, the children create an understandable sequence for the whole morning. Who can create their own algorithm with the individual action sequences? Players also have to consider the conditions in the form of weather maps and then develop a code for the path to the destination!

Contents: 102 pieces.
1 game board, 40 picture cards, 2 Cody and Pixi figures.
Material: carton, cardboard, wood.
Dimensions: 26 x 26 cm.
Have you ever had to search for something in an untidy children’s room? Cody and Pixi know the problem! Together with the players, the siblings discover how computers, unlike us humans, sort things and find them again in response to a search command. The children try out different ways of sorting with various things from their everyday life and understand the basics of simple search algorithms and a binary code. Who can keep track of everything while searching and sorting and manage to solve the tasks by assigning, comparing, and strategic search sequences, as well as finding the item they are searching for as quickly as a computer?

Contents: 38 pieces.
6 weight cylinders, 1 set of scales, 6 color tablets, 6 animal figures (mouse, duck, beaver, cat, dog, horse), 2 fabric bags, 15 sock cards, 1 binary search tree, 1 set of instructions.
Material: carton, cardboard, wood.
Dimensions: scale B 35 x H 4,5 cm, cylinders H 8 cm Ø 5 cm, dog B 1,4 x L 4,5 x H 4 cm.

208655 Digital Starter: Search & Sort

• first experimentation with various searching and sorting algorithms
• developed with the University of Bamberg

Made in Germany

... or from small to large!
• guaranteed puzzle fun discovering and applying binary codes
• with three exciting game variations
• high-quality game material that encourages children to try things out
• getting to know through play how a computer works and the basic principles of computational thinking
• developed with the University of Bamberg

Digital Starter – that’s an innovative game concept that is geared to the world in which we children live and introduces us to how computers work in a totally analog way!

Digital Starter: Arranging Game Pixel
Can computers actually paint? Of course not! But then how do the colorful images get on the screen? Cody and Pixi know the answer: the twins show children what pixels are and how a code can be used to create a large image from individual color information. On the screen or in the arranging frame – the principle is the same! In three arranging games that build on one another, children learn the basics of digital image construction and unravel the corresponding codes. Can the players recognize images in pixelated form as well and crack the binary codes? The aim of the game is to decode the information and place the color tiles in the right place!

Contents: 1299 pieces. 232 large pixel building blocks, 1045 small pixel building blocks, 1 arranging frame, 20 template cards, 1 set of instructions.
Material: real wood, plywood, paper.
Dimensions: arranging frame: 22,5 x 30 x 1,2 cm.
• 2 age-appropriate, digital educational projects
• no prior knowledge required
• a fun way to acquire basic programming knowledge

Digitalwerkstatt Boxes
Each box contains a programming task and a creative task, teaching children the basic principles of electricity. It helps them to discover and play a part in the digital world. The activities also support a general understanding of technology.
Each box contains 1 programming magazine, 1 craft magazine and 1 craft bag with everything needed for the craft project (e.g. adhesive tape, stick-on dots, button cells, LED, wire, etc.).

341495  Box 1 (for 5 – 7 years)
341496  Box 2 (for 8 -10 years)

207980
Making Set
With this complete set, 6 children can make the snail roll, create a painting robot, and add light effects to cards. Contents: instructions for these 3 “Making” ideas, 10 m adhesive copper tape, 6 battery boxes (for 2 AA batteries each) with cable and switch, 30 LEDs, 6 slide switches, 5 m switching wire, 6 DC motors.
Friedrich Fröbel recognized the importance of play and hands-on activities for children. To this end, he developed a clever, systematic, and comprehensive educational system that focuses on the essentials.

Fröbel Materials from HABA education always build from simple to complex. They offer children numerous suggestions for creating, thereby establishing lots of learning opportunities. In free play, the children themselves determine which topic they work on and at what speed – depending on their personal interests and abilities. With child-centered education, the children are accompanied with linguistic sensitivity. This stimulates their creative powers. They playfully explore the laws of (building) bodies and (arranging) materials. In this way they develop their mathematical and linguistic understanding, their aesthetic sensitivity, and their creativity.

Fröbel’s Gifts are both simple and sophisticated at the same time. Inspired by this, HABA education has developed Fröbel Materials that use clear shapes and flexible creative techniques to holistically stimulate the imagination of children aged 3 years and older.

Prof. Dr. Michaela Rißmann
377052
Fröbel Marble Game
The appealing, clear shape of the ball in the bright colors of the rainbow and the material wood, which Friedrich Fröbel anchored in his educational concept, makes the game particularly inviting. The balls are laid on the board freely or following templates to form lines, patterns, mandalas, and three-dimensional structures. To increase the degree of difficulty, children can also try doing this with pliers or 2 spoons.

Contents: 36 wooden balls (4.6 cm) in the colors of the rainbow (6 each in red, orange, yellow, green, blue, violet), 1 board (31 x 31 cm), 1 pair of wooden pliers, can be dismantled into 2 spoons, 30 template cards, 1 set of instructions.

- highly inviting game with a variable degree of difficulty
- for forming numerous, varied and beautiful Fröbel shapes
- 10 templates “from point to line” (lines and symmetrical patterns), “from line to area” (area-wide patterns) and “from area to body” (three-dimensional structures)
- promotes concentration, color differentiation, and understanding of symmetry
- supports fine motor skills, hand-eye coordination, and spatial perception
With nature as a role model

Venturing (future) designs together

Child development is a maturation process. In order to better understand this process, let us, like Fröbel, simply take nature as an example. Nature carries within itself all knowledge. What is important in transferring knowledge is primarily how it is done! Especially in times of touchscreens and media over-stimulation, it is important to give children an understanding of topics clearly, step by step, and in their natural surroundings. Fröbel’s holistic educational approach is also aimed at natural dealings in the educational process, that is, in everyday teaching, learning, and play routines.

Educational terms – as current today as ever:

- Early education in preschool language
- Focus
- Self-education
- Clear colors and simple shapes
- Aesthetics
- Mathematics
- Completeness
- Child-centered education
- Nature

Window Film Fröbel “Season Tree”

A window picture for the whole year! The season tree changes with nature and offers quite a sight in spring, summer, fall, and winter. Simply separate the tree trunk and stick it on the window. Depending on the season, circles, semicircles, and triangles are separated and cut out and decorated as leaves, flowers, apples, or snowflakes around the branches. The shapes stick on both sides on all smooth surfaces and are smudge-proof and reusable.

Contents: for 1 tree.
12 transparent adhesive films in 10 colors, partially stamped and printed; instructions. Dimensions: base of tree trunk 44.6 x 33 cm. Level of difficulty: easy.
FIND OUT MORE ABOUT THE FRÖBEL CONCEPT at www.haba-education.com
Window Film
Geometric Shapes

Fröbel’s Gifts as a window film

Fosters understanding of aesthetics, symmetry, and geometry
Shows how new shapes develop from different ones
Encourages assembly of beautiful patterns, pictures, and motifs from everyday life

Fröbel thought

- Fröbel’s 7th and 8th Gift as a window film
- Fosters understanding of aesthetics, symmetry, and geometry
- Shows how new shapes develop from different ones
- Encourages assembly of beautiful patterns, pictures, and motifs from everyday life

Contents: for approx. 18 motifs.
21 adhesive cutouts with geometric shapes, 6 motif templates, stamped, instructions.
Dimensions: hexagon approx. 7 x 6 cm.
Level of difficulty: easy.

341253
Window Film Fröbel “Geometric Shapes”
Children are always following their inner impulses. Their innate curiosity and creative potential only have to be “teased out” and maintained. So that they can fully realize their urge to discover and their delight in designing, they need a reduced learning environment. Focusing is the key word. The aesthetic materials are limited to what is essential. These feature clear colors and simple geometric shapes with a high recognition value.

According to Fröbel, creative materials such as the arranging materials or their contemporary version as window films are highly stimulating, encourage learning processes, and allow knowledge to develop. Children can delve deeply into their self-selected play learning environment. Here the true wealth of the creative materials is revealed: With each playful experiment, variations grow from simple shapes into complex structures. Children will not only conquer the land of imagination but also gain casually or through focused stimulations essential knowledge of mathematical symmetrical shapes and colored aesthetic patterns and forms of life. And they will become acquainted with something valuable for the future: concentrated, structured, and independent work on an object.

Developing creative potential

Clear shapes and colors are inspiring
155244

Froebel Arranging Material
The large sorting and arrangement box contains – beautifully arranged in 9 compartments – colorful arrangement material in the following shapes: arches, triangles, semicircles, rhombuses, rectangles, rings, disks, hexagons, rods, trapeziums and squares. The arrangement material is designed in old and new Froebel colors. Users can sort the material by color and shape, and arrange it freely or based on templates. The perfect partner: the template cards printed on both sides (order at the same time: item no. 155378).

Contents: 1242 pieces.
Material: sorting box made of wood. Dimensions: sorting box L 49.5 x W 36.5 x H 7.5 cm, ring Ø 5.5 cm, square L 2.5 x W 2.5 cm, thickness of pieces 6 mm.
• for sorting and arranging pictures
• lots of shapes and colors (including new Froebel colors!)
• in a wooden box with sliding lid

155378

Froebel Template Cards
Wipeable template cards printed on both sides, with varied animal, nature and geometric motifs. For use with the “Froebel” Sorting and Arrangement Material Box (order at the same time: item no. 155244).

Contents: 10 pieces.
• used with the “Froebel” Sorting and Arrangement Material Box
• printed on both sides
• wipeable

Froebel thought on the Template Cards:
• Selection of the shapes based on the arranging material according to Froebel, in typical edge lengths (2.5 cm / 1", 5 cm / 2", and 7.5 cm / 3")
• Fosters through play understanding of the fundamentals of geometry, symmetry, and mathematics
• For forming numerous and varied shapes, quantities, and patterns in the 3 Froebel categories: Forms of Beauty, Forms of Life, and Forms of Knowledge
Arranging Puzzle Animal Trio

arranging in the wooden puzzle arranging frame
139166 Arranging Puzzle Animal Trio

The amusing animal trio of owl, fish, and snail offers children the right framework to develop new and beautiful patterns. During play, diamonds, trapezoids, or hexagons can be formed from triangles of the same color. In this way, children themselves discover the foundations of symmetry and geometric shapes. The attractively designed learning material made from wood is highly stimulating. With the equilateral triangles, varied patterns, mandalas, or images from nature or everyday life can be arranged even without the frames.

Contents: 3 puzzles.
Animal motifs as arrangement frames, 240 arrangement triangles in 6 colors of the rainbow. Material: plywood, 4 mm thick. Dimensions: Snail 27 x 17.5 cm, triangle edge length: 1", 2.5 cm.
Age: from 3 years.

Fröbel thought on the arrangement puzzle:

- for forming numerous and varied shapes, quantities, and patterns in the 3 Fröbel categories: Forms of Beauty, Forms of Life, a Forms of Knowledge
- highly stimulating
- trains perception of symmetries
- and geometric shapes
- fosters fine motor skill, shape and color differentiation, and creativity
- for arranging patterns and mandalas with and without frames

free arranging
Building sets with 5 cm edge length for the classic 10 x 10 grid

- basic geometric shapes for first independent building
- geared toward the Gifts according to Fröbel
- for numerous and varied shapes and structures in the 3 Fröbel categories: Forms of Beauty, forms of Life, and Forms of Knowledge
- fosters through play understanding of the fundamentals of geometry, symmetry, and mathematics

**A 158529 Fröbel Roller Base for Building Kit Cart**
Roller base with 4 rollers for assembling your own building set cart. Material: sturdy beech wood. Dimensions: approx. L 68.7 x W 35.7 x H 10 cm.

**B 158528 Fröbel Building Kit Wagon**
Complete building set cart made of unfinished, smoothly sanded beech wood boxes with roller base. The contents of the building set cart correspond to the 8 Fröbel building sets (222 pieces).

Contents: 224 pieces. Dimensions of the cart: approx. L 68.7 x W 35.7 x H 35 cm.
**From the simple to the differentiated**

Children best receive wooden blocks in units that build one on top of the other. All blocks have a uniform basic size. Children first explore the blocks in free play. With each building kit, more complex shapes follow, such as prisms, bridges, and cylinders for an increasingly differentiated play. The children can form numerous shapes and structures with many variations from the block shapes. Fröbel called these **Forms of Beauty**, **Forms of Knowledge**, and **Forms of Life**. Using their own hands, children understand the basics of geometry and mathematics. Through play, they open up for themselves the world and its regularities.

**Forms of Knowledge**  
First insights into mathematics and geometry

**Forms of Beauty**  
Symmetrical circular patterns/mandalas

**Forms of Life**  
Objects from everyday life
Fröbel thought on the Weaving Strips Set:
- for weaving aesthetic, geometric patterns in different colors and widths
- fosters understanding of aesthetics, symmetry, and geometry
- weaving and counting train basic mathematical knowledge
- many colors for different formats and varied crafting projects
- lots of colors, different formats

157248
Fröbel Weaving Strips Set
Whether for weaving or crafting stars or garlands - this supply of weaving strips in bold colors and different shapes will last for lots of projects! Tip: The weaving strips are beveled to make the weaving easier. After weaving, simply cut off and attach the ends.

Contents: 540 strips. Construction paper 130g/m² in 6 colors. Dimensions of the beveled strips: 49 x 1 cm, 49 x 1.5 cm and 49 x 2 cm. Level of difficulty: easy.
Weaving à la Fröbel

Weaving following Fröbel – with language support
You begin with easy, repeating weaving movements, which can be increased in difficulty, culminating in independent weaving. According to Fröbel, this encourages children to become self-acting and to develop their whole creative potential. The focus is on the exemplary and on counting, as becomes clear from the language support by the teacher:

“Thread one down, one up...”
(simple pattern)

“Thread three up, three down...”
alternating with
“Thread one up, one down...”
(complex pattern)

These are just examples for counting verses repeated over and over again (“Always up and down”). Through playful use of these verses, children are introduced to arithmetic and develop an initial idea of symmetry and shapes. As a result of having to skip one, two, or three weaving rows, children also learn to keep to fixed structures and rhythms.

Weaving à la Fröbel fosters in children basic mathematical knowledge as well as language expression by the constant repetition of the language support.
Support executive functions through playing with Fex

Fex stands for “fostering executive functions”. It is a playing and learning concept created by the Transfer Center for Neurosciences and Learning (ZNL) at the University of Ulm in partnership with Wehrfritz GmbH and the Metzler Foundation.

Brain research refers to “executive functions” to mean the mental abilities that control human thought and action. They enable, for example, children and young people to calm down, direct their attention, concentrate, and work with information.

Well-trained executive functions and the ability to self-regulate are important for successful learning, for dealing with one’s own feelings in a controlled way, and for social-emotional development.

From cognitive neuroscience we know how executive functions can be specifically promoted and trained through play both physically and cognitively – Fex offers children aged 4 and up the ideal playing and learning materials.

Prof. Dr. Dr. Manfred Spitzer
ZNL Transfer Center for Neuroscience and Learning, University of Ulm

Laura Walk
ZNL Transfer Center for Neuroscience and Learning, University of Ulm
What are executive functions?

Educational professionals in preschools and primary schools are becoming increasingly aware of behavioral problems in children: many children find it difficult to get themselves “under control”. They do not manage to fit into a group and often react uncontrollably or inappropriately. They are easily distracted, want their wishes fulfilled immediately, show little perseverance in their actions, and get frustrated quickly. Educational professionals talk about easy distraction and a lack of self-discipline. Children who succeed in all this better and who can behave “appropriately” in different situations have well-developed executive functions. This includes the neuroscientifically founded psychology of the following abilities:

**Executive Functions**

- **Working memory**
  - Retain important information
  - Store short-term memories and process the stored information
  - Remember your own action plans
  - Consider alternative actions

- **Inhibition**
  - Impulse control
  - Alternative actions instead of instinctive autopilot
  - Measured control of your own actions
  - Improved concentration

- **Cognitive flexibility**
  - Mental agility
  - Adapt to new situations and challenges
  - See people and situations from different perspectives and shift between them
  - Learn from mistakes
Executive functions can be developed through play

The brain is the human body’s most adaptable organ. Its plasticity means it changes through use and over time. This is referred to as neuroplasticity. Neuroplasticity means that executive functions benefit from practice, which supports both the cognitive and physical aspects of these important brain functions.

Supporting and developing executive functions is not the end purpose here; executive functions are essential for children to develop skills in preschool and school. These abilities include

1. The child can actively focus their attention and block out any disruptions.
   The fundamental ability of inhibition, i.e. distinguishing unimportant details from essential information.

2. The child is able to control their actions more and more frequently.
   This requires the use of inhibition to restrict certain specific actions and recognize alternative actions.

3. The child is able to mentally plan a course of action.
   The brain needs to be able to use its working memory to remember intermediate steps and alternative actions in order to find a better solution.

4. The child is able to set objectives for themselves.
   It is important that the child does not forget or reject its previous objectives the next time it comes across the same situation. In addition to working memory, inhibition and the ability to self-regulate are also therefore required.

5. The child is able to set priorities.
   This requires the recall of different objectives and their value and to compare and weigh them up by switching perspectives. Setting priorities is based on all the executive functions described here: working memory, inhibition, and cognitive flexibility.

6. The child is able to reflect on courses of action.
   The working memory is asked: What is happening and what do I want to do? It is also necessary to interrupt action at specific points to encourage the reflection process and then continue with the action. This requires good inhibition and cognitive flexibility.

7. The child is able to reflect on their social behavior.
   When reflecting on social situations, personal emotions also need to be controlled.

8. The child is able to control their emotional impulses in a social situation with others.
   Emotions prompt certain patterns of thought and behavior. The child needs the ability to self-regulate so that they are not at the mercy of their emotions.
1. The working memory – mentally processing information

The working memory makes it possible for us to store information temporarily to work with it mentally. Thus, the working memory is the prerequisite for many cognitive achievements such as linguistic skills and mathematical thinking.

We need the working memory, for example, when solving mental arithmetic tasks, so that we can remember the calculated intermediate results and perform the subsequent calculation operations.

Or to understand complex sentences featuring subordinate clauses and parentheses.

With a good working memory it is possible to go through working steps in our heads, solve problems, and make plans. It helps us to remember instructions from other people or intermediate steps of action plans and to compare alternative actions to find a better solution.

**Train your working memory:**

This game requires the storage of information and the consideration of various action options.

**207201 Cooking with Fex**

Cooking apprentices with a good memory wanted! Fex the chef wants to cook a big menu. To make sure nothing goes wrong, the children have to help him. But only those who concentrate hard and make as few mistakes as possible can master the high demands on a chef and collect the coveted Fex points. The more ingredients a child has to remember, the greater the challenge for their working memory. The game also trains attention control, as the chefs should not be distracted by the guests’ table conversations.
The chef remembers the ingredients he needs .... and prepares them.

If the guest has an allergy, these ingredients must not be put on the pizza.

Top the pizza and check it against the order!

Is it right?

- trains the working memory
- fosters controlling attention
- with variable degree of difficulty
2. Inhibition – targeted control of behavior and attention
This means the ability not to do something despite impulses to do so, or not to let oneself be distracted in order to consistently pursue a goal. Attention and behavior can be controlled by a well-functioning inhibition and are thus not so strongly influenced by external conditions, one’s own emotions, or firmly anchored behaviors.

With good inhibition or impulse control, it is easier for children to start their homework rather than turning on the television, or to deal with a conflict with words rather than their fists.

Train your inhibition
This game is about not being distracted and directing attention in a targeted way.

158843
Fex - Never Mind!
Don’t be distracted. But that’s easier said than done! Using every means, Fex tries to make as much trouble as possible and distract the builder from working. In order to win, the players must focus on their tasks. Children also learn how to be able to deal with disruptive stimuli. The game includes a solo version as well as versions with different levels of difficulty.
The builder.... memorizes a structure .... and tries to recreate it from memory, while the troublemaker is distracting him or her at the same time.

The troublemaker .... draws a distraction card and tries to distract the builder accordingly .... while the builder seeks ways to cut out the distraction.

You did it!

The cube ... ... determines the intensity of distraction.

- trains inhibition
- fosters controlling attention
- with variable levels of difficulty and a solo variation
3. Cognitive flexibility – versatile and creative thinking
Cognitive flexibility is the ability of an individual to adapt to new situations or challenges, and adjust their behavior and thinking accordingly. It also describes the ability to see people and situations from other, new perspectives and to switch between these perspectives.

Well-developed cognitive flexibility helps us to be open, appreciate others’ points of view, learn from mistakes, and adapt better and more easily to new situations and challenges in our life and work.

Training mental flexibility
In this game, players need to consider different perspectives and changing rules.

158849
Fex - Look and Match
Looking carefully is the name of the game. Players have to find the set card that matches the search card shown. Cool animal motifs (elephant, fish, dog, penguin, and sheep) are shown on the cards. But which animal motif is identical, and which is back-to-front? Players who think they’ve found the right card mustn’t play it too hastily or be distracted by disruptions. After all, there are commands and rules to follow. A game that trains concentration and the working memory. With variations in different levels of difficulty.

Contents: 134 pieces.
Where is the doppelganger to these elephants?

Find the reflection. You need to concentrate!

It is more difficult if the ‘partner’ is upside down.

Attention: the red-green dice changes the rules.

- varied observation and matching game
- 5 animal motifs with different levels of difficulty
- trains observation skills, attention and cognitive flexibility
- ideal for inclusion work
Development of executive functions

Children’s executive system develops rapidly when they are preschool age. It improves significantly up to the age of 7, particularly in terms of inhibition and cognitive flexibility. Children in this age range get better at recognizing and assessing situations and people from different perspectives. At the same time, the ability to control emotions improves in children over the age of 3.

In addition to inhibition and emotional control, there is also a marked improvement in working memory. More and more information can be integrated into current thoughts. This is why young people get better at successfully performing complicated sequences of actions. One key difference between the behavior of children and adults is that children’s executive functions are not yet fully developed.

They continue to develop until people are in their mid-twenties. Individuals’ executive functions develop and take shape in different ways and can be nurtured through practice.

Executive functions and emotional competencies

Executive functions have a positive effect on children’s and adolescents’ emotional development and enable them to live peacefully in their communities. Successfully controlling behavior reduces aggression and encourages empathetic (compassionate) behavior.

Children who show well-developed inhibition are more able to repress both positive and negative emotions than children with poorly developed inhibition. It can be assumed that having better developed inhibition and self-regulation enables them to subordinate their concerns to the thoughts and feelings of others. Empathy and self-control are two important abilities that can be encouraged by developing executive functions. Children with better self-control also show fewer internalization problems such as feelings of inadequacy, loneliness, and depression than children with poor cognitive control functions.

Executive functions and ADD / ADHD

Children with attention deficit disorder / hyperactivity disorder (ADD / ADHD) also benefit from support for their executive functions. These children and adolescents often suffer from particularly impaired executive functions.

Poor working memory, impulse control, self-regulation, and attention control are core symptoms of ADHD. This is why this disorder is known as a ‘dysexecutive syndrome’.

Numerous research studies of children and adolescents with ADHD suggest that assistance focusing on executive functions can prevent the disorder or, if it has already started, can help heal or at least improve it. Supporting executive functions is therefore a potential alternative to medicinal treatment or can complement it.
174766

Fex – Inner Compass

Who will be able to keep a close eye on and follow the direction of flight of the 48 birds in this card game? Only those who react correctly can help their flock of birds to make the journey south safely! This requires concentration, cognitive flexibility, inhibition, and working memory. In addition to the “normal” bird cards there are 24 special cards, which influence and change the course of the game.

Contents: 62 pieces.

An exciting card game with the FEX effect!
• control emotions and impulses
• increase mental agility
• train working memory
Features:
- develop working memory, cognitive flexibility
- train creativity, and vocabulary
- control of impulses
- foster abstraction

206508
Fex – Tiger Has Clown Fish
What do a tiger and a clown fish have in common? It’s simple: stripes! In this Fex game, the aim is work out what the animals have in common, remember it, and transfer it to other animals. It’s not just an exciting memory challenge. It also requires creativity, a good vocabulary, and cognitive flexibility! There are four preliminary game ideas for training these skills and getting used to the game material. The attractive game material, including high-quality wooden inspirational cards and cute cardboard animal cards, make it both fun and educational.

Contents: 14 wooden fantasy cards, 60 cardboard animal cards (3 x 20 animals) – all cards 5 x 7.2 cm, 1 hourglass, set of instructions. Type: knowledge game / quiz. Age: 5+
Willy’s Number World encourages mathematical skills and more

Willy’s Number World is a holistic approach to learning that has gained international recognition for many years. It helps to develop children’s basic mathematical skills in child-oriented ways.

Children need to acquire the principles of successful mathematical education when they are in preschool. In Willy’s Number World, numbers become trusted helpers that enable children to describe, order, and understand the world. The holistic approach combines teaching mathematical numerical aspects (object) and their relationship to the children (subject). The learning approach encourages the children’s joy in learning and movement as well as their emotions and imagination. Playing and exploring together gives them creative, self-effective access to mathematics.

Milly’s Learning Zoo is an ideal precursor. This learning approach helps children from the age of 2 to develop their preliminary mathematical and linguistic abilities. Children learn to listen, act out and re-tell stories, as well as differentiate between colors, shapes, and quantities, and understand spatial relationships.

Scientific studies have shown that children over the age of 3 can use the carefully designed, flexible materials in Willy’s Number World to acquire fundamental mathematical skills through play.

Gerhard Friedrich, PhD
Numbers Come Alive

Willy’s World of Numbers is a holistic learning concept for the acquisition of solid math skills for basic numbers.

In Willy’s Number World mathematics is presented from the child’s perspective: what is more natural than to think of a land where animals, paths, houses, towers, and gardens are numbers. Luckily there is also a number fairy, because sometimes a number goblin causes trouble. A land in which numbers are at home and make their mathematical properties known in a personal way.

Children are fully involved in setup of Numberland, diverse play possibilities, and activities: with their heads, hearts, and hands. They experience the most important aspects of the numbers tangibly and playfully, and explore relationships within the number range from 0 to 10.

The children are also challenged and motivated to develop perception and concentration, social skills, perseverance, fine and gross motor skills, creativity, and musical and language abilities.

Gerhard Friedrich, PhD

Let’s visit Numberland

An emotive, playful early math concept on numeracy+

www.numberland.net
**Number Houses**
They connect the numerical aspect with the counting term.

**Number Gardens**
They represent the number as a geometric shape.

**Number Carpet**
Children can slip into the role of numbers and take their place in the Number Gardens, or fill the fields with items that match the numbers.

**Number Animals**
Soft Number Animals made of fabric with features that match the number.

**Number Towers**
They illustrate division of numbers.

**Number Path**
It makes the sequence of the numbers tangible of a number sequences.

**Number Train**
The beautifully designed Number Train promotes the understanding of numbers.

**Number Stacking Tower**
It represents quantities in different ways.
Willy’s Number Stacking Tower is a colorful stacking set comprising 10 wooden cubes of different sizes. They can be stacked on top of each other to make a tower, sorted, or lined up next to each other: The fun with numbers and quantities is different every time. Four game ideas for the cubes with lots of versions help with learning numbers and a feeling for quantities. The geometric puzzle shapes of the stacking tower also make it both educational and fun.

Contents: 11 pieces.
10 stacking cubes (4 sides printed, 1 side with geometric puzzle pieces), 1 bag, instructions.

• introduces to basic addition and number partitioning
• fosters identification and naming of numbers
• conveniently stored
• stackable on top of or inside one another

Stack it up!

379101  Willy’s Number Stacking Tower

Willy’s Number Stacking Tower is a colorful stacking set comprising 10 wooden cubes of different sizes. They can be stacked on top of each other to make a tower, sorted, or lined up next to each other: The fun with numbers and quantities is different every time. Four game ideas for the cubes with lots of versions help with learning numbers and a feeling for quantities. The geometric puzzle shapes of the stacking tower also make it both educational and fun.

Contents: 11 pieces.
10 stacking cubes (4 sides printed, 1 side with geometric puzzle pieces), 1 bag, instructions.
Willy’s Number Train

The beautifully designed wooden train comprises the locomotive and 11 carriages, representing the numbers from 0-10. 1-10 colorful wooden discs can be placed on them and carried around. It’s clear that NOTHING can be placed on the carriage representing zero. The dice spots displayed on each carriage and attachable flags with the corresponding numbers illustrate the number picture and the quantities. The carriages can be joined together and run on stable wheels and axles. In the cab of the locomotive, there is space for the two wooden figures: the number fairy Forget-Me-Not and the goblin Muddle! All aboard, the journey to Numberland is setting off! Cheerful game ideas and short accompanying stories promote understanding of numbers and quantities.

Contents: 129 pieces.
1 locomotive, 11 carriages, 2 wooden figures: Number fairy Forget-Me-Not and goblin Muddle, 100 wooden discs in 10 colors (10 for each color), 11 number flags (0-10), 1 fabric bag, 2 dice, instructions. Dimensions: Carriage 13 cm; complete train 172 cm.
This is where the numbers live!

The Number (World) Houses

Willy’s Number Houses familiarize children with numbers, because they make number ranges tangible. Each number lives in its own house. The Number Houses are wooden cubes with an attachable flag and round openings as “windows”.

The windows are arranged on the Number Houses like the eyes on a dice, and represent the counting aspect. Wooden plugs can be used to close or open the windows. The flags bring order to Numberland.

Each child represents a particular number and furnishes their house with the corresponding number of things. House 1 has one of everything, house 2 has two of everything, and so on. Animals with 4, 6, and 8 legs or structures with three, four, and five corners are put into the corresponding houses. Number Gardens (on page 14) can be used to expand the space around the houses. The children begin to divide numbers when they visit in their houses. 2 and 3, for example, can be combined to make 5.

How many windows are still open?

The windows of the houses can be closed and opened with the black plugs. This lets them make the counting aspect comprehensible. Calculating takes place incidentally, e.g. as children decide how many plugs they still need to remove. For simple subtraction tasks windows can be closed with natural colored plugs.

When the numbers grow ...

... the houses also get larger. To expand the number range up to 10, the houses from 1 to 5 receive an extension. A house with the number 5 is added. The number 6 consists of the houses 1 and 5, number 7 of 5 and 2, etc. In this way the “double houses” lead to addition of number combinations, which is made easy for children in this form, and which can be continued by counting on their fingers.
Willy’s Number Houses, Set
Illustrate the numbers from 1 to 10. 15 houses with 1 to 5 holes for the plugs and 1 house with no hole for zero. The numbers 6 to 10 are shown by stacking or placing two houses next to each other (5 + 1, 5 + 2, 5 + 3 etc.) Note: The numbers after 6 can also be depicted as duplexes if you order 5 additional roofs.

Contents: 114 pieces.
Material: wood, all edges are rounded; flags made of fabric.

Tip
Close the Window - a dice game for early addition
Replace the 6 with a 0 on two dice, and distribute the plugs evenly among the players. Children take turns to roll the dice, count the eyes together and “close” the windows in the matching house with their plugs. Who will be the first to use all their plugs?

Variation: for 5 houses, play with one dice.

- large set consisting of houses, roofs and flags
- encourage playing, counting and math
- the flags symbolize the quantity of windows shown
Willy’s Number Gardens
Every number has its own garden

The Number Gardens form the basis for Willy’s World of Numbers. What makes them so special is that they represent the numbers as a geometric shape; 3 as a triangle, 4 as a square, and so on. Like the Number Houses, they are a concrete representation of the number range in that every number from 1 to 10 has its own number garden. This means that children associate the numbers with the corresponding geometric shapes. First the gardens are laid out and filled: children place the number houses in the right Number Gardens - the flag shows the „house number“. The corners can each be marked with a cube from the Number Towers. In this way counting is practiced in connection with the quantity. Other objects can be added to the garden in the corresponding quantity (building blocks, marbles) or with matching aspects (three wheels, four legs).

Tip
„Woof woof“

„Numbers in motion“:
Recognize and copy special attributes

Each Number Garden also has a resident number animal. But only those who know the animals very well are allowed into their gardens. The children distinguish the Number Animals by their attributes and assign them to the gardens. The one, for example, barks once in front of its garden, the two „swims“ two circles around its house; the three crawls like a worm three times around itself; the four - the rhino - stomps on the ground loudly and powerfully four times, etc. Children enjoy performing these and similar tasks with typical noises and movements.
Willy’s Number Carpet

- supports learning of the numbers up to 10
- non-slip carpet with bound edge
- combines with the “Willy’s number world” concept

067460
Willy’s Number Carpet
Number carpet for learning the basic numbers. By showing the number gardens, it invites children to slip into the role of numbers, to sit down or to fill the number gardens with objects corresponding to the number.
Material: 100% polyamide, cut loop pile (H 7 mm), with non-slip back, bound edge.
Dimensions: Ø 3 m.
Willy’s Number Towers

Building number towers

The Number Towers make many activities for playful number exploration possible, and are especially suitable for representing division of numbers. Each cube has a red, a blue, a yellow, and a green dot. The Number Towers from 1 to 10 also illustrate larger/smaller relationships.

Calculating with numbers
The cubes can be used to teach children can be taught early calculation steps. Each cube corresponds to the numerical value of 1. In this way 3 cubes represent the number 3, 4 cubes the number 4, and so on. Each number represents the result of a mathematical connection, e.g. 2 + 3 = 5.

Dividing numbers
With the Number Towers, children can visually explore the division of numbers. The four colored dots on the cubes have a striking effect: the 8 consists of 5 green and 3 red cubes (8 = 5 + 3) or of 4 yellow and 4 blue cubes (8 = 4 + 4, or 8 = 2 x 4). The children can show even more complex divisions such as 10 = 3 + 2 + 4 + 1 or 8 + 2 x 3 + 2 with the help of the cubes. The ease of turning the cubes encourages spontaneous experimentation.

Comparing numbers
The cubes can be stacked on top of each other using a wood cylinder. This connecting element gives the Number Towers stability. The cubes can be turned easily by the children, so that a different color faces the front. The stacking system means that the Number Towers are quickly built or taken apart again.

Building, representing, and comparing numbers: with the Number Towers children can experiment on their own. Mathematically important concepts are explored almost automatically. Children learn, for example, what „smaller” or „larger” means in a mathematical context without the need for complicated explanations. When the numbers are represented as heights or lengths with the help of the towers (4 is twice as high as 2), children also experience the dimensional aspect. Even early area and spatial awareness can be acquired with the cubes, for example in series of 2 x 2 x 2 cubes.

Stair race - a calculating game for early addition and subtraction
The first child rolls the dice and places a toy figure on the tower of the number that appears on the dice; e.g. on the tower of 5. Then the next child rolls the dice. Each toy figure is moved up or down the stairs according to the number on the dice. The player who reaches the agreed number with their move wins.

Initial trial and error is followed by forward thinking and then with calculation steps.

A plug can also be used instead of a play figure.
Willy’s Number Towers
Tabletop version of the number towers

Sorting, counting, identifying quantities, dividing numbers

Has a system. The Number World Towers consist of wooden squares with four colored dots threaded onto wooden rods. They can be used in exactly the same way as their “big brothers”, the Number Towers. The Number World Towers can also be attached onto the chimneys of the Number World Houses on page 5. The larger the number, the higher the chimney reaches into the sky.

133932
Willy’s World of Numbers Towers 0 - 10
The wooden discs have spots printed on them in red, yellow, green and blue and can be arranged on the wooden rods or the wooden strip.

Contents: 79 pieces.
Pegging strip (75 cm), 11 rods in 11 lengths, 55 discs (4 x 4 x 2 cm), 11 flags.

- entertaining pegging game for learning the numbers from 0 – 10
- train quantity differentiation and matching
- foster concentration and attention

attach onto the Number World Houses
Would you like to attend a World of Numbers seminar? More information at www.numberland.net

To distinguish between odd and even numbers every second number tile can be turned around. Forward and backward moves on the Number Path can be used to represent addition and subtraction.

Willy’s Number Path
Numbers Step by Step

Willy’s Number Path connects the world of numbers with kinesthetic experiences. It makes the order of numbers (= sequential aspect) something that can be experienced. By moving forward or backward, jumping or stepping on the number tiles the children learn the order of numbers in play. They recognize the numbers that come before and after a given number, and form a mental image of the number sequence.

In exercises the Number Path can be walked over while blindfolded and the children can from time to time be asked what number they are standing on. Willy’s number path offers a variety opportunities to learn about the appearance and order of numbers. Moving around on the Number Path can be supported by counting along loudly or softly, clapping, banging wooden blocks together, or by counting rhymes.
Jumping over numbers - a hopscotch game with addition and subtraction

Lay the number tiles from 1 to 9 out in a square. The first child throws a small bag onto a number and thinks of a problem that has this number as the result. Then the child “hops” the addition or subtraction on one leg. If the bag lands, for example, on a 7, the child calls out: “4 + 3 = 7” and tries to jump on the number tiles 4, 3, and 7. If a child calculates incorrectly, touches the wrong tile, or steps on the tile with both feet, it’s the next child’s turn.

133074 Willy’s Number Path 0-20
The non-slip number tiles are extra-large, so they can be stepped or jumped on easily – even by two at a time. They have the numbers from 0 to 20 printed on them. For better orientation, the numbers 0, 5, 10, 15 and 20 are in different colors.

Contents: 21 pieces.
Material: felt, non-slip bottom. Dimensions: 29 x 29 cm.
- extra-large tiles with non-slip bottom
- brings the sequence of numbers up to 20 to life through movement
- connects the world of numbers with kinesthetic experiences
Willy’s Number Animals

Clever numbers to cuddle

These Number Animals give every number from 0 to 10 its own unmistakable personality: the six is a curly snail, the seven a black and white zebra, etc. The shape of the stuffed animals corresponds to the shapes of the individual numbers. The respective number is also symbolized by distinctive features, e.g. dots or spikes. This makes Willy’s World of Numbers into a holistic experience. The Number Animals can be used for a variety of purposes. They can be made to talk and move, or they can be integrated into various children’s games. Another factor is the important emotional aspect: children love to cuddle with them. In combination with stories and songs, the Number Animals provide intensive access to the basic numbers in a playful manner.

The Original

1 curl

3 stripes

5 spikes

133929
Willy’s Number Animals
The soft number animals made of fabric provide intensive, emotional access to basic numbers. Each animal has features corresponding to its number.
Contents: 11 pieces.
Material: foam with terry cloth cover. Washable at 30°C. Dimensions: e.g. number animal “1” approx. 38 cm tall, Ø approx. 6.5 cm.

• 11 quirky number animals (0 to 10) in different colors and patterns
• encourage basic mathematical understanding and language ability
Willy’s Wooden Numbers

133930
Willy’s Wooden Numbers 0-10
The numbers symbolize quantities through corresponding features: on the number 7, for example, there are 7 hearts, and the number 4 has 4 braids.

- Contents: 11 pieces.
- 11 numbers with corresponding rods and stands made of wood. Dimensions: height approx. 14 cm, wooden foot 10 x 10 cm.
- 11 colorfully illustrated wooden numbers (0 to 10)
- teach the numbers up to 10 in an entertaining way
- combine with the number world houses (item no.133931)

Would you like to attend a Willy’s Numberland seminar?
More information on Numberland seminars and the Numberland handbook on www.numberland.net

Let’s visit Numberland
An emotive, playful early math concept on numeracy+
Basic Set

- substantial set to apply the learning concept
- houses, towers, gardens, and wooden number from “Willy’s Number World”
- free of charge: Fairy & goblin

Contents: 278 pieces.

133943
Willy’s Basic Set
The set contains: 16 Willy’s Number World houses, Willy’s number path 0 - 20, 55 Willy’s number towers, Willy’s number gardens 1 - 10, and Willy’s wooden numbers 0 -10. Free of charge: the “Fairy & goblin” figure set. Contents: 278 pieces.
Beginner Set

- large, good value, well-designed basic set
- facilitates access to mathematics
- helps to develop basic mathematical understanding
- encourages playing, counting, and calculating

16 number world houses
10 natural poles
11 number animals

Willy's Beginner Set

Contents: 135 pieces.
16 number world houses (5" x 5" x 5" / 13 x 13 x 13 cm; 11 roofs (2.7“ / 7 cm high), chimneys, flags; 55 black poles, 10 natural poles; 11 number animals (for comparison: ‘No 1’ H ca. 15“ / 38 cm, Ø ca. 2.5“ / 6.5 cm), 10 number gardens (for comparison: circle Ø 29.5“ / 75 cm, oval 39.3“ x 23.6“ / 100 x 60 cm).
- illustrative game material for early math exercises
- encourages concentration and memory
Willy’s Mini Number Houses

- for number division in math class.
- memory aid and play material
- for documenting the numbers learned for parents. In the foyer, for example, a Mini Number World can be set up on a table, which grows with each new number learned.

Mini Number Path

1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19

Mini Number Garden

15.5 cm

133523
Willy’s Mini Number Houses, Set
Consisting of the mini number houses (15 houses, fabric flags with the numbers 1 to 10, wooden rods to plug in the holes), the mini-number path (number path tiles 0 to 20; gray felt, 5 mm thick, 0, 10, 15, 20 blue, otherwise black) and the mini-number gardens 1 to 10 (green felt, 5 mm thick). Dimensions: number path tiles 3.5 x 5 cm, number garden for 1: Ø 15.5 cm, number houses (without flags): W 7 x H 9.5 x D 6 cm.
Children use several proven methods of playing with language: watching, comprehending, imitating, asking and replying, reading aloud, and listening. This ‘sensory’ language acquisition is a learning process that is shaped from birth by the child’s interaction with everyone in their wider community, including family and educators.

Increasingly, however, families tend to be structured around smaller family units. Children only have a few siblings or none at all, both parents often work, and there are many single-parent families. The role of educating and developing children is therefore increasingly moving from the home into nurseries and daycare centers, schools, and childcare facilities.

Haba education provides new, varied, interdisciplinary approaches designed for children’s individual needs, using educational games that are fun for both children and adults. The games stimulate children’s imagination and creativity, and strengthen their self-confidence and social skills.

Children use several proven methods of playing with language: watching, comprehending, imitating, asking and replying, reading aloud, and listening. This ‘sensory’ language acquisition is a learning process that is shaped from birth by the child’s interaction with everyone in their wider community, including family and educators.

Sabine Endres-Kornfeld
Certified speech therapist
MAGIC FAIRY TALES

• 7 game ideas

207232

Fairy Tale Magic
7 fairy tales – 7 game ideas! Jakob and Wilhelm Grimm’s Fairy Tales are known and loved by young and old alike. In this game, Cinderella, Little Red Riding Hood, The Bremen Town Musicians, Sleeping Beauty, The Frog Prince, Hansel and Gretel, and Puss in Boots have been gently modernized and beautifully illustrated. Because many of the phrases and sayings in these stories are so well-known and easy to recognize, and are often firmly established in our long-term memory, they are ideal for re-telling and playing – for all generations, from nurseries to schools, for ESL / EFL lessons, in therapy, and as treatment for the elderly and those suffering from dementia.

Contents: Seven fairy tale mats (Ø 9” / 23 cm), 35 fairy tale coins, 7 wooden figures, 10 category cards, 14 sayings cards, 30 puzzle cards, 1 fate coin, 1 treasure pouch, 1 set of instructions.

STORYTELLING COCOONS

• three play worlds that can be rolled up: farm, fairy tale forest, and family
• with all-round zipper
• includes 10 wooden play figures for each play world
• flexible and can be taken along anywhere

101772

Storytelling Cocoons
Open the zipper, spread out the play world, give free rein to the imagination, and start playing. The lovingly designed play worlds – farm, fairy tale forest, and family residence – encourage new ideas again and again using the figures. Scenes from everyday life can be re-enacted as well as the fairy tales “Little Red Riding Hood,” “Hansel and Gretel,” or “The Frog Prince.” Ideal for language development and in the field of German as a Second Language for vocabulary expansion and stimulating storytelling.

Contents: 33 pieces. 3 storytelling cocoons (family, farm, fairy tale forest), exterior made of felt, interior made of fabric (can be wiped clean) – each cocoon includes 10 wooden play figures (each 1.2 cm thick). Dimensions: Play area approx. 43.6 x 20 cm, closed cocoon (with loop) approx. 9.5 x 48 cm, girl approx. 3.4 x 4.9 cm.
• colorful play material for developing one’s own first stories

STORYTELLER

158902
Storyteller
The versatile high-quality material encourages inventing one’s own stories. In addition, there are detailed instructions with a theoretical section, read-aloud and read-along stories, poems, and beginnings of stories. Fosters free speaking and storytelling and assists verbalizing feelings and empathy.

Contents: 51 pieces.
8 large and 7 small wooden play figures, each side printed differently; 34 picture cards, 10 large (18 x 18 cm) and 24 small (9 x 9 cm); 1 wooden picture card holder with slot; 1 booklet of stories/instructions.

• figures printed differently front and back
• stimulates creativity, imagination, social competence, and self-confidence
What belongs together? Picture cards on a specific topic are placed in each of the 6 compartments of the language lab. The cards can be arranged according to different criteria: opposites, similarities, chronological order, understanding of spatial positioning (prepositions), or affinities. Each topic can be worked out differently: by speaking, listening, reading, writing, or movements. Playable alone, in pairs, or in groups. The instructions explain individual exercises and possible variations.

Contents: 136 picture cards (6 x 6 cm), arranging boards, 1 set of instructions. Material: Picture cards and chest of drawers made of sturdy cardboard. Dimensions: W 36 x H 12 x D 17.6 cm.
BUILDING UP VOCABULARY

Picture Cards "City"
8 large scene cards with 8 themes:
marketplace post park
... more scenes: pharmacy, hospital, station, street corner.

88 small picture cards to allocate
people and items in the city actions, e.g. riding the train

146806 Picture Cards “City”
What’s going on in our city? The players try to find this out by looking closely at the large scene picture cards and then matching them to corresponding small cards showing objects, activities and sequences of actions thematically or in terms of time. Numerous reasons for discussion encourage players to talk about their own experiences.
Contents: 98 pieces.
Box (W 40 x H 17 x D 20 cm) with 8 large picture cards (18 x 18 cm), 88 small cards (9 x 9 cm) and detailed instructions with lots of usage examples. Material: robust cardboard.

Picture Cards "At Home"
15 large scene cards with 7 themes:
dining living room kitchen “empty”
... more scenes: bedroom, study, bathroom, kitchen, utility room.

245 small picture cards to allocate
items actions

133781 Picture Cards “At Home”
This box contains scene picture cards on the following topics: living room, bedroom, study, dining room, household/laundry, bathroom/personal hygiene and kitchen/cooking/baking. There are also matching small cards, with objects, furniture, activities and actions which can be seen on the large picture cards. The players recognize and name what they see, and allocate the cards thematically or in terms of time. There are various allocation options: scene - items/furniture, scene - activities, activities - items. In the process players expand their vocabulary and are encouraged to talk about their everyday life and home life.
Contents: 262 pieces.
Sorting box with drawers (W 40 x H 17 x D 20 cm) with 15 large picture cards (18 x 18 cm) on 7 everyday themes, 245 small cards (9 x 9 cm) and detailed instructions with lots of usage examples. Material: robust cardboard.

• quick access thanks to clear picture identification
• picture cards for language development and vocabulary expansion
• encourage concentration and looking closely

Developing language skills
Picture Cards “In the Country”
Which picture cards with motifs showing country life can be matched correctly in terms of theme or time to the large theme cards? To find out you’ll need to look very closely! This picture card set was developed for learning and recovering terms relating to life in the country. The matching game trains perception, memory capacity, communication skills and concentration, and is suitable for people of all age groups. With 10 large, illustrated theme cards, numerous picture cards, action and time sequences as well as 5 entertaining game ideas. Ideal for language development and therapy, in preschool and school.

Contents: 151 pieces.

- matching game with detailed illustrations and large range of applications
- quick access thanks to pictures on the sturdy storage box
- encourages language, vocabulary, visual perception and concentration.
- more than 100 questions offer numerous discussion topics for any age
170969 Action Dice
Very versatile. Cardboard cards can be individually designed and slotted into the clear panels. Cards can show numbers, letters, pictograms, images of instructions etc. The dice are very light and can be cleaned with a damp cloth.

Contents: 4 pieces.
Material: PU foam, 600D cover (100 % polyester), PVC film. Dimensions: 3.7” x 3.7” x 3.7” / 9.5 x 9.5 x 9.5 cm. Set with 2 red and 2 blue dice.

ACTION DICE
• with 6 clear film panels
• very versatile
• individually designed cards can be slotted into the panels
Emotional skills or the ability to deal with one’s own feelings and those of others, to understand others, to help them, or to comfort them, are important milestones in childhood development. These lead to the ability to negotiate interests with others and thus contribute to a strong community as a strong personality.

377053 “Mixed Emotions” Wooden Balls
This game enables players to deal with their feelings and improve their emotional and social skills. The 6 wooden balls are printed with basic facial expressions: Fear, anger, disgust, sadness, surprise, and joy. They can be separated in the middle and re-assembled, creating new emotions: a “mix of emotions”, that the players discuss and interpret, sharing their own experiences.

Contents: 12 pieces.
12 semi-circular balls (Ø 46 mm), printed, 1 base (18 x 14 cm), instructions.
EMOTION PUPPETS

• helps children to understand and verbalize feelings
• creates opportunities for conversation
• ideal for helping “withdrawn” children to open up

371650 Emotion Puppets Set
Fear, disgust, joy, sadness, surprise and anger: Each of the six soft hand puppets has a different facial expression.

Contents: 6 pieces.
Material: 100% polyester.
Dimensions: L 40 cm. Washable at 30 °C.
PUZZLE WHEEL

• creates opportunities for conversation
• helps to strengthen cognitive and linguistic skills
• can also be mounted on the wall

208411 Puzzle Wheel
Turning the puzzle wheel reveals another image, inspiring questions or discussions. Includes 6 double-sided printed discs on 12 topics (professions, vehicles, colors, shapes, vegetables, household, seasons and nature, clothing, fairy tales, fruit, famous buildings, animals) and a blank disc to create your own topics. Can be set up using the stand or propped against a wall.
Material: wood Dimensions: Base approx. 45 x 18 cm, discs Ø approx. 45 cm.

6 discs, 12 topics
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