MEDIA literacy for early years

2019 Innovative Resources & Ideas
From our perspective, acquiring media literacy is an important issue for children. Our world and that of our children is increasingly shaped by digital media. The future lives of the generation growing up today will be influenced more and more by information and communication technologies. Children observe how their parents deal with computers, tablets, and smartphones and at an early age gather their own experiences using digital devices. It is therefore key to educational work to connect with this and take seriously a media education mandate embedded in the educational plans of the German states.

We have created this special issue because we would like to contribute our part to this work – and because we want to support educators in their important work. Digital media supplement and expand the activities with children, but human beings will always be of primary importance.

That’s why media education should take up the everyday life and experiences of children and be embedded into the educational concept of every institution.

The following aspects are the focus of our attention:

… that children actively deal with media, that is, are creative and productive, and implement projects together. On the following pages we have prepared four projects, from crafting with electricity to a green screen video.

… that children talk about media experiences and their media use, hence discussion in the group is the starting point of every project.

… that children learn something about the operating principle of computers and programs, even completely in analog form.

That’s why we developed the educational game concept Digital Starter, in which materials such as picture cards or building blocks playfully convey what a pixel or an algorithm is.

… that educators incorporate digital devices into their work and therefore are able to implement documentation or projects more easily.

We hope that educational institutions and their teams will be open-minded, curious, and delighted to try something new, so that media education will be successful with children. Move forward in small steps and simply try out the suggestions in this booklet. We will be happy to accompany you on this path.

“Media literacy is part of a holistic education.”

GERTRAUD UNGER, Head of HABA EDUCATION ALLIANCE
Interviews & tips from experts

Why is media education so important in preschool?
2
Prof. Dr. Wassilios Fthenakis

Media in the daily daycare routine
3
Benefits and possible applications

Project ideas

Crafting with electricity
4
Make your light monster light up

Create an e-book
6
Talking picture dictionary

Stop motion film
8
Bring figures to life

Green screen video
12
Flying heroes, dancing fairies

Digital Starters

Why is computational thinking so important?
15
Prof. Dr. Ute Schmid
You are in favor of digital education in preschool. Why?

Children come in contact with media and digital offerings at an early age, especially in their families. Studies have confirmed that children between the ages of one and two have already internalized the internet culture of their parents. When they enter preschool, they are little technology experts. Because digital literacy develops early on in the preschool age.

In practical terms, what aspects of media education are important to you?

Media education in the preschool age must not be reduced just to new technologies. In my opinion, even picture books and many other things can be included in media materials. As part of the project "Natur-Wissen schaffen" ("Creating natural knowledge") project financed by the Deutsche Telekom foundation and carried out at the University of Bremen, a team under my direction has been dealing with conceptualizing media literacy and has presented a four-dimensional model:

a) Children discover media in their everyday lives and learn how to operate it (for example, a CD player, PC, smartphone, tablet).
b) They learn to use media for their own interests and to communicate socially with other children and adults, and not least to get information and address their questions to other people.
c) In doing so, children can, often in a dialog with their teacher, process these potential uses and reflect on the way they deal with such media and newer technologies (e.g., media-related anxieties).
d) In this way, they learn that people create media and do so with certain intentions (e.g., for advertising purposes). These learning processes are organized co-constructively, and in dialog with the teacher and other children, they develop their media literacy. And furthermore, they learn to incorporate media meaningfully, productively, and creatively in their own learning process.

What should be kept in mind during implementation in education institutions?

Technologies per se are neither good nor bad. It depends on how you deal with them and how you use them. The effects I’ve mentioned are linked to certain basic conditions, of which four are increasingly important: a) The institution must have a functioning and well maintained infrastructure.
b) The qualification of the teaching staff is another basic condition, so that teachers are able to connect analog materials to virtual offerings.
c) The pedagogical concept is fundamentally significant. The available educational plans remain tied to the analog paradigm.
d) In all educational sectors, a close cooperation between family and educational institution is necessary.

Media are ubiquitous and are part of the experiential world of children.

What is your very personal wish for the future of the educational system?

It is essential that we modernize the educational system and strengthen it for the digital age. We are currently a long way from that. The modernization process includes all aspects of the previous educational systems: its theoretical basis, the educational objectives, guidelines and principles of pedagogical activity, the understanding of what education is, the didactic methodological approach, and the planning of suitable new learning spaces that support the newly conceptualized learning processes. The skills must be strengthened that today and even more in the future will decide our well-being and success in life: empathy, meta-emotional, problem-solving, and social skills (understanding and appreciation of diversity, and the willingness to take responsibility for oneself, for others, and for nature, to name only a few of them).

Why is media education so important in preschool?

I n p r a c t i c a l t e r m s , w h a t a s -
Crafting with electricity

What is electricity anyway and why do we need it? By crafting simple circuits, children develop an understanding for the principle of energy and what a significant role it plays in our daily life. With the help of batteries and wires, they can create a path for the electricity and make it visible and tangible in the form of small lamps and little motors. Hands-on learning and learning by trying out - that is exactly what the Making projects are about. Many different crafting ideas very playfully convey basic technical knowledge and can be linked to age-appropriate topics such as expressing feelings, animals and plants, or numbers and letters. In addition to fine motor skills, creativity, speech comprehension, and action planning are also fostered.

Make your light monster light up

1 | Discuss topic
What is electricity? Discuss in the group, where we encounter electricity in everyday life and how it can be turned on and off with the help of switches. In preparation for crafting the light monster, feelings such as joy, anger, sadness, or fear are discussed with the children.

2 | Explain craft set
The craft set contains everything that the children need for their mini-circuit. With a simple series circuit made of LEDs, copper adhesive tape, and a 9 volt battery, the children can make the nose of their self-crafted monster light up. At the same time, first basic technical terms such as LED, battery, and a positive and negative terminal are taught and how a circuit works is explained.

3 | Crafting a light monster
When am I happy, excited, sad, or angry, and what do I look like then? Different moods can be named and expressed using faces and pictures. Each child may craft their own light monster from construction paper and decorate it according to their imagination.

4 | Make noses light up
The LED nose lights up when the circuit is closed on the rear of the monster by pressing the battery onto the copper tapes. Tip: The monster troupe can be very nicely presented to parents and visitors in a darkened room.

You can find additional products and more detailed product information at www.haba-education.com
Create an e-book

Talking picture dictionary
you can design yourself

1 | Discuss ideas
What are countries? What countries are there? What languages are spoken there? The topics countries, languages, and cultural diversity can be discussed in the group by having the children tell what places they know and what languages they themselves speak. In this way, the group very playfully develops their own ideas for the picture dictionary.

2 | Photograph images
In groups of two, the children photograph various motifs and picture cards and thus retain them for their e-book. The children alternate holding the image and taking the photo. A tablet holder can be used, or the children can build their own little "tripod" from four tall building blocks and photograph the image beneath them from above without any wobbles.

3 | Design pages
When all the images are inserted, the teacher together with the students selects the languages and the appropriate country flags. Using images and flags, the children take turns designing the individual pages of the e-book.

4 | Record the text
What is something called, and who knows the word in another language? Using the Book Creator app, the children can record in their own language the terms depicted. The sound files can very easily be recorded directly in the app and immediately inserted into the pages by placing them on the appropriate flags. The sound file is then played back by tapping on the flag.

Quick Reference Guide
Book Creator app
Photograph picture cards
Design pages with images and flags
Record terms in different languages

Language Lab
189194

Picture Cards "At Home"
133781

Picture Cards "City"
146806

Picture Cards "In the Country"
141974

You can find additional products and more detailed product information at www.haba-education.com

Project Idea
Create an e-book

E-books give children a lot of room for creative ideas and provide teachers many options for their educational work. Thanks to the simple functions in the Book Creator app, even the littlest ones can integrate their own sketches, images, audio and video recordings, and even short texts into an animated digital book. In this way, they very playfully learn how to handle multimedia content. Creating one’s own actions, backdrops, and figures fosters imagination and creativity as well as fine motor skills, language development, and cooperative action. At the same time, children become familiar with the various applications of the daycare tablet and can craft, color, photograph, and bring to life their very own stories.

Language development
Creativity
Media literacy

You can find additional products and more detailed product information at www.haba-education.com
Stop motion is a simple animation technique. It can be used to create small animated cartoons on a tablet according to the flip book principle. Several consecutive individual images are produced in the Stop Motion Studio app and played back as an animated sequence of images. Younger children can also present simple story lines using stuffed animal figures and puppets. Preschool children aged 5 and 6 can already develop complete stories and tell them using small clay figures or drawings. Inventing your own stories and creating background images and figures very playfully fosters creativity, imagination, and fine motor skills.

1 | Develop a story

The group discusses what the film should be about, where it is set, and who should be shown in it. Older children can also create together with their teachers a simple storyboard.

2 | Craft set

The children may themselves create the backdrop for their film from cardboard, paper, paint, or modeling clay. Tip: As an alternative, the background can be combined with a play carpet or green screen (see project, pp. 12/13).

3 | Mold figures

Figures and, if planned, parts of the set are crafted from modeling clay. Before the shoot begins, the children can practice how they want to move the figure. The storyboard helps to implement the planned story line.

4 | Make the film

In small groups, the children can make the stop motion recordings by themselves or together with their teachers. One child moves the figures while another child photographs. Tip: The film can later be presented especially well with short intros and outros.

These products are required:

- Quick Reference Guide Stop Motion Studio
- Design set and craft figures
- Make a stop motion film

Project Idea

Stop motion film

Action planning  Fine motor skills  Media literacy

You can find additional products and more detailed product information at www.haba-education.com
Projects with digital media can be implemented in existing group rooms. Several details facilitate implementation: Flexible cabinets, tables, and seating quickly and easily create visually separate areas in which the children can immerse themselves in their projects undisturbed. Sound insulation elements on the wall and ceiling create a pleasant atmosphere with good acoustics and enable distraction-free work, crafting, and playing in small groups. Activity areas and quiet spaces serve as a backdrop and stage for films and photos. They also are a quiet place and are ideally suited for gathering ideas, working on projects, and looking at results together.

A Media corner
Children can discuss, plan, and prepare their projects on the comfortable explorer sofa. A mobile bookcase with casters provides space for books, documents, and the like and can be easily placed where it is needed thanks to a metal handle and lockable casters. With a wall area painted green or a green screen, the media corner turns into a green screen backdrop in no time at all (see pp. 12/13).

B Crafting & play area
Ergonomic tables and chairs can be flexibly positioned in the room and combined according to the individual requirements of the group. At a separate table, the children can look at and work on projects on the tablet together with their teachers. The spatial proximity to crafting and painting tables and material cabinets enables the preparation and direct use of project accessories, backdrops, and props.

C Play platform
The solid wood platform with carpeting and a wooden wall is a separate play and retreat area rolled into one. Children can work on their projects here by themselves or with their teachers, make recordings, or concentrate on their ideas. Sound insulation elements and the partition create an acoustically and visually protected area, while at the same time there is always contact with the rest of the group through a peep hole.

D Role play area
A play kitchen and small round table with stools provide space for imaginative role playing. The children can assume their favorite roles here and come up with stories for their first film shoots and stop motion videos (see pp. 9/10).
Green screen video

Fly through the air as an action hero, dance in an enchanted forest with fairies, or jump from a high cliff into the ocean? With green screen videos, children can be transported to the exciting worlds of their favorite stories and superheroes. With this technology, which is also used in films and television, scenes are filmed in front of a green wall and then combined with any other film sequences.

The children learn interesting technical knowledge on the topic of film production and that not everything that they see on a screen is actually real. Media content can be thought about beforehand in the group, and the children get an opportunity to talk about their personal superheroes. When creating their own little film scenes, the children can slip into the roles of their favorite heroes and demonstrate all sorts of physical skills and creativity.

**Project Idea**

**Green screen video**

1 | Collect ideas

Who are my favorite heroes and why? Discussed in the group with the children are which superheroes or magical beings they are familiar with, what distinguishes them, and which of their powers and skills they would perhaps wish for themselves.

2 | Make a costume

When the children have decided what role they want to assume, they can become creative and assemble their own costume or craft small accessories and props.

3 | Shoot green screen scenes

The adventure can be staged with a camera, chair, and soft floor mat in front of a green wall or screen. Just like their favorite heroes, the children may now try out action-packed jumps, dances, or flights and record them with the camera. The sky is the limit for the imagination. Bar walls or exercise areas can also be used creatively.

4 | Select background

Cliff, outer space, or enchanted forest? Together with their teacher, the children select where the film scene is to take place. The recordings are combined in the app with the selected background. Children can already help out starting at preschool age.

13 | Green screen
"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.

"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.
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.

Templates with varying degrees of pixelation

A large picture is formed by a code

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: 249 pieces: 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.

Templates with varying levels of difficulty

Pattern recognition

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
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. Instructions.
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, plywood, cardboard.
Dimensions arranging frame: 32.9 x 32.9 x 6.3 cm.

Deciphering mysterious codes – this isn’t just fun for Cody and Pixi! 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 past experts pondering!

Contents: 119 pieces: 100 dice with 4 colored, 1 white, and 1 black side, 1 arranging frame, 15 code cards, 1 set of instructions.
Material: real wood, plywood, cardboard.
Dimensions arranging frame: 32.9 x 32.9 x 6.3 cm.
Sign up to receive the HABA education newsletter in English to keep up to date with the latest news, education resources and lots more besides!

Register at www.haba-education.com
This is who we are!

As an association of strong brands of the HABA Family of Companies, we have one goal: Shaping worlds of learning together. We achieve this by harnessing synergies, collaborating with experts, and implementing innovative ideas. The individual brands work in close cooperation and accompany all children as well as their educators, advisers, and teachers from elementary school to the university level.

Wehrfritz is a complete outfitter for daycare, preschool, and social institutions. In the development and distribution of teaching and learning materials, innovative furniture and educationally sound room concepts, the needs of children and educators and teachers are the top priority.
www.wehrfritz.de

Project as an innovative outfitter of schools offers solutions for holistic learning environments. Well thought-out room concepts support students in learning and teachers in teaching.
www.project.de

The Gesellschaft für digitale Bildung (Society for Digital Education) has its headquarters in Hamburg and follows the motto: no IT equipment without a concept. As a system-independent solution provider, it is committed to the digitalization of educational institutions.
www.gfdb.de

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

HABA education supplies educational outfitters around the world with educational resources, which are perfectly tailored to the needs and concerns of educators.
www.haba-education.com

www.haba-education-alliance.com

HABA Sales GmbH & Co. KG
August-Grosch-Straße 28-38
96476 Bad Rodach, Germany

Phone: +49 9564 929 2412
Fax: +49 9564 929 662400
E-Mail: info@haba-education.com
www.haba-education.com
Who can program with building blocks? What does a search tree look like? And who can touch a pixel?

The products of the educational Digital Starter game concept consist of analog materials, such as picture cards or building blocks, that playfully convey what a pixel or an algorithm is. Basic cognitive skills such as logic, spatial awareness, and concentration are fostered in this way.

The games were developed in collaboration with the Basic Computer Science research group at the University of Bamberg. They are scientifically sound and provide an age-appropriate entry into the digital world that educators and teachers can easily teach and children can easily understand.

You can find our “Digital Starter” products starting on page 14.