

✦ OVERVIEW FOR TEACHERS, SPECIAL NEEDS EDUCATION, DAY-CARE AND PARENTS

What Applies Where

Every learning path with its curriculum reference, its professional basis, an honest limit, and ideas for the classroom.

Built around the questions that actually come up while reading: What does the child do? What is it based on? What does it not prove? And what do I do with it on Monday morning?

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uggadugu.pages.dev

TO START WITH

The five questions that come up first

What exactly is Uggadugu, and do I need anything special for it?

A learning web app for cycle 1: kindergarten to grade 2, usually four to eight years. What counts is the stage, not the date of birth. It runs in the browser of any tablet, even offline, with no account and no installation from a store. You need a device and five minutes for the class code.

Does this replace my teaching materials?

No. Uggadugu practises individual cycle 1 competences and supplies paper to go with them. Your mandatory teaching material stays exactly what it is. The app's letter sequence can be matched to the sequence in your teaching material, so both practise the same thing.

Do I need to clear this with the school leadership and data protection?

Children's data stays on the device. There is no account, no sign-up, no transfer to a server. The app sends no children's data to us; we do not process personal data on your behalf. What the school itself has to check for data on the device follows its cantonal data protection law.

Doesn't this just mean more time in front of a screen?

A round takes a few minutes. Afterwards Ugu, the cuddly toy, deliberately sends the child away from the device: to chalk, stones, the kitchen clock or family. The daily limit is set to thirty minutes by default, and nothing starts by itself.

Will I get data about my children that I'd rather not have?

You see observations, not grades: what succeeded independently, what needed help, which characters a child confuses, what is due for repetition. There is no leaderboard, no time tracking and no report flagging a child.

How to read this overview. Every learning path has a table with four columns: the building block, what the child does in the app, the curriculum reference with its code, and the professional basis with its limit. After that come ideas for the classroom, day-care and family. Abbreviations: K is kindergarten, G1/G2 are grade 1 and grade 2, SEN is special needs education, DaZ is German as a second language.

WHO THIS BOOKLET IS FOR

Teachers in cycle 1, special needs teachers, day-care professionals and parents who want to know more precisely what the app is based on.

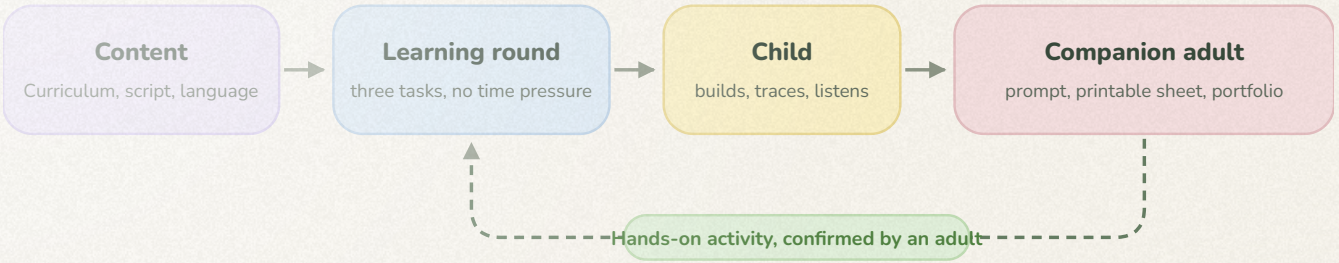
WHAT IT IS NOT

Not a marketing brochure and not proof of effectiveness. No efficacy study exists for Uggadugu itself. The studies in the tables apply to methods, not to the product.

✦ THE PRINCIPLE

1 The screen is the shortest stop

A round takes a few minutes. Then Ugu leads the child away from the device, to an activity with material, movement or other people. What happens there comes back as a confirmed observation. This loop is the core.



What the child does outdoors or at the table counts in the app exactly as much as a task on the device. That is why every round ends with a card, not with the next round.

The nine developmental access points

Lehrplan 21, the Swiss curriculum, describes the start of cycle 1 not only through subject areas but through nine access points. Every task in Uggadugu carries either a subject-area code or a number from this list. Kindergarten and day-care can use it to show what has been worked on, without having to invoke subject-area codes.

NO.	ACCESS POINT	EXAMPLE IN UGGADUGU
1	Body, health and motor skills	Walking the number line, tracing letters with the arm, fine motor skills while tracing
2	Perception	Telling sounds apart, tactile letters, a flash glance at quantities
3	Temporal orientation	The daily timeline, ordering routines, the clock
4	Spatial orientation	Up and down, the compass rose, spinning the globe
5	Patterns and relations	Continuing patterns, comparing quantities, decomposing numbers
6	Imagination and creativity	Own play pictures, own puzzle, picture-and-text cards
7	Learning and reflection	“How was it?” with three faces, the child explains to Ugu what it has learned
8	Language and communication	The listening path, initial sounds, vocabulary, storytelling
9	Independence and social action	Tasks in pairs, swapping roles, cards with family and siblings

✦ WHAT IS INSIDE EVERY TASK

2 Core principles that run through everything

These mechanics apply to every learning path. This is where special needs education and learning research live inside the app. Once you know them, you understand every single task.

MECHANISM	WHAT THE APP DOES	BASIS AND LIMIT	WHAT THIS MEANS FOR YOU
Graduated prompts	Four help levels per task: demonstrate, highlight, repeat the audio, no help. For tracing, four template stages. The level rises after two independent successes and falls after two prompts.	Prompting, Fading and Time Delay are listed in the NCAEP review (Steinbrenner et al. 2020) as established practices in adult-led support. Whether they work the same way inside an app has not been studied.	Help that is used is never counted as an error. You can set a lowest level that the app never goes below.
Time Delay	If no input follows, a “Show me” prompt pulses after an adjustable wait. No countdown, no time tracking.	Listed in the NCAEP review as an established practice (in adult-led support). The wait gives the child room to begin on their own.	Set it longer for children who need to think. Shorter for children who otherwise disengage.
Item memory	The app remembers, for every letter, sound, number and calculation, whether it succeeded independently, with help, or on the first attempt. Items fall due again after 1, 2, 4, 8 and 14 days; using help resets that to one day.	Spaced repetition and active recall have a broad research base (IES, Organizing Instruction and Study). The intervals themselves are a transparent product rule, not a scientific prescription.	For every character you see: attempted, with help, independent, succeeded again later. “Can read” does not follow from that.
Guess protection	Only the first attempt counts as an observation. The wrong options are the characters that this particular child actually confuses.	Errorless learning and distractors drawn from a child’s own mistakes are teaching practice, without a dedicated efficacy study of their own.	The confusion pairs are the best clue to what belongs in a support lesson or at home.
Input by building	Quantities are laid out or tapped, not chosen from three digits. Multiple choice appears only where building would not make sense.	Enactive before iconic before symbolic (Bruner) is established teaching tradition. The IES mathematics guide recommends a developmental build-up of number and operation.	The same thing at home with real stones. The app uses the same representation as the Zahlenbuch.

✦ CHAPTER TWO · CONTINUED

MECHANISM	WHAT THE APP DOES	BASIS AND LIMIT	WHAT THIS MEANS FOR YOU
Visual structure	Before every round, three picture cards to tick off, and Ugu with a backpack at the end. The announcement “one more task” is tied to the content, never to the clock.	Visual support is listed in the NCAEP review as an established practice in adult-led support. A diary study with 28 families found that two-minute warnings made transitions harder and natural end points easier (Hiniker et al. 2016). Observational data, not an experiment.	The same schedule can be printed as a day plan for home.
Reward after the round	Default: after every round, an adventure picture with confetti. If the reward is switched off under “Supports”, a calm acknowledgement follows without picture or confetti; a YouTube video that was allowed still plays at the end of a journey. YouTube stays optional and off by default.	Material rewards can crowd out enjoyment of the activity itself. That is why the reward can be switched off for each child. With a high level of support needs, a professional decides deliberately whether it is on.	For the class, pass on the class code with supports; the reward is then off in the active child profile. No one compares pictures.
Support profile	Barriers, not diagnoses: low stimulus, large targets, fewer options, symbol input, switch control, a fixed help level, a schedule. Set per child or via the class code.	Universal Design for Learning (CAST, UDL 3.0) provides the framework, together with the ICF logic behind the standardised assessment procedure: what matters is the need for support, not the diagnosis.	No field asks for a diagnosis. No child sees who has which profile.
Adult prompt	Every task carries one sentence for adults, at most twelve words, as text and as an audio clip: “Ask: what do you hear at the beginning?”	Parent-implemented support is listed in the NCAEP review as an established practice. Social embeddedness is the fourth pillar of effective learning apps (Hirsh-Pasek et al. 2015).	The prompt is spoken and available in the family’s language, including for parents who read little.
Analogue bridge	After an adjustable number of rounds, the block ends at a natural end point. The child chooses from three activity ideas, filled with their own characters that are currently due.	Choice reduces problem behaviour (meta-analysis, Shogren et al. 2004). Autoplay kept preschoolers at the screen most strongly (Hiniker et al. 2018). Movement only helps when it maps onto the content (Link et al. 2013).	Outdoor cards appear only when adults allow them. Supervision stays with you.
Screen time	A daily limit within the app, thirty minutes by default. The app counts only its own time, and says so.	Pro Juventute names at most thirty minutes a day for ages three to six and sixty for ages six to nine. The WHO names at most one hour of sedentary screen time for three- and four-year-olds. Both figures cover all screens combined.	In day-care there is no child mode, only cards and audio for listening together.

? *Who decides when a child gets less help?*

Normally, the rule does: two independent successes move it up, two prompts move it down, per character. If you do not want that, set a lowest level that the app will not go below. A child may already write M freely while still needing the full template for S. That is exactly what the rule reflects.

LEARNING PATH

3 Listening: sounds, rhymes, syllables

The listening path needs no letters at all. It only needs pictures, words and recorded sounds. That is why it works the same way in every language and is the same for DaZ children (German as a second language) as for everyone else.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
H1 Sounds and words	Matching everyday sounds and words from recorded audio to a picture. No browser voice.	D.1.A.1.a–b · Access point 2	Perceptual training is a precondition for phonological awareness. The task does not prove general language competence.
H2 Rhymes	Listening to and choosing rhyming pairs. Nonsense rhymes count, because they focus attention on sound.	D.1.A.1.b · Access point 8	The Würzburg programme shows a medium effect on phonological awareness with daily work over twenty weeks (d = 0.36), with little transfer to reading (HfH). The app does not reach that dosage and does not claim to.
H3 Syllables	Clapping syllables with one tap per syllable. Finding words with the same number of syllables.	D.1.A.1.b · Access points 1, 8	Syllable segmentation belongs to the same programmes. One step per syllable follows the finding that movement helps when it maps onto the content.
H4 Initial sounds	Hearing the initial sound and choosing a picture. The options are this child's own confusions, such as m and n or b and p.	D.1.A.1.b · D.1.A.1.d	Sound before letter name: the IES guide strongly supports linking sounds with letters. Whether this transfers to German still needs checking.
H5 Blending sounds	A stretched-out sequence of sounds (M-A-L) together with the word it forms. The blending is both visible and audible.	D.1.A.1.d · D.2.A.1.a	Blending is at the core of learning to read. It needs correctly spoken sounds, which is why only checked recordings are used.

? *How is this supposed to work if a child barely speaks German?*

This is exactly where the listening path is strong. It needs no letters and no reading, and the same rhyme or initial-sound task runs first in the family's language and then in German. The adult prompt is spoken in both languages, so parents who speak little German themselves can still support the child.

K

A listening corner in free play

One tablet with a headphone splitter, two children, ten minutes, then the "syllable stones" card at the table next to it.

K, G1

Listening day

The class draws a sound map of the school building. The app supplies the sounds; the children record their own to add.

DAY-CARE

Circle time without a screen

Rhymes and initial sounds as audio for listening together, plus activity cards with a goal, material and a conversation prompt for the professional.

PARENTS

Twenty minutes: "listening before reading"

Why "V as in Vogel" leads a child astray, how to say sounds correctly, three games for the walk home. The app plays the sounds.

LEARNING PATH

4 Reading: letters, sounds, first words

The guided reading path follows a teaching letter sequence per language, for German roughly M, A, L, O, S, I, N, T, E, R, rather than the alphabet. Every letter card has three recordings: the sound, the name, an example word. The sound is the default.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
L1 Identifying characters	Finding one character among a few others. The letters of the child's own name come first.	D.2.A.1.a	A child's own name is the most personal starting point. Unusual spellings are taken over correctly, including with accents.
L2 Sound and letter	Hearing a letter as a sound and choosing the card. A letter in a word with a gap, such as M_us, with initial-sound audio.	D.2.A.1.a–b · D.1.A.1.d	Mirror-image letters such as b and d are developmentally typical up to about age seven. Similar letters are introduced separately and only practised together once both are secure.
L3 Blending words	From the fourth letter onward, words are blended together: MA, MAL, LOS. Nonsense words are allowed.	D.2.A.1.b–c	Systematic decoding is strongly supported (IES Foundational Skills). Nonsense words stop a child from guessing the word from the picture.
L4 Very short sentences	Two to four known words as a sentence with a picture, with an audible punctuation mark.	D.2.A.1.c · D.4.F.1	Being able to read is not a precondition, because every sentence is built from vocabulary the child has already heard.

? *We work with a set teaching programme. Will the app confuse my pupils?*

The letter sequence can be switched in the class code to match your teaching programme's sequence. The app then repeats exactly the letters currently being taught, and shows you which pairs the class confuses.

K, G1

Letter detectives

A weekly task, "find the M outside". The children photograph signs and packaging with the class device; the pictures land in their own memory game. No faces, that is part of the task.

G2 WITH K

Reading tandems

Grade 2 pupils use the bottle-cap workshop to build nonsense words for kindergarten children to blend. Whoever explains it learns it too.

SEN

One-to-one support

A profile with two options, symbol input and a fixed help level. The per-character export is a basis for observation toward a support goal, not a test.

G1, G2

Word-label treasure hunt

Word labels on things around the classroom. The child reads one and brings the object to the cuddly toy.

LEARNING PATH

5 Writing: name, letters, digits

In the German-speaking Swiss edition, children write and read in the Deutschschweizer Basisschrift, the official school script of every German-speaking canton. The letterforms and stroke orders are taken unchanged from the cantonal guidance. In other regions, the script recommended there applies.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
S1 Exploring shapes	Curves, straight lines and circles with finger, stylus and large movements. The starting point and direction are visible.	D.4.A.1.a–b · Access point 1	A pre-registered study with 160 kindergarten children: tracing letters with the arm produced the largest gains and narrowed the gap between stronger and weaker children (Educational Psychology Review 2024).
S2 One's own name	Looking, tracing, copying. Letter before word.	D.4.A.1.b–c	In four- and five-year-olds, freely writing by hand later activated parts of the reading network; typing did not (James & Engelhardt 2012, ten children). That is why every tracing task comes with a pen on paper.
S3 Letters and digits	Four template stages down to a blank space. The coach gives movement feedback in words, such as "start at the top", and never judges how neat it looks.	D.4.A.1.c–e · MA.1.A.1	Prompting and Fading (NCAEP). Handwriting programmes can improve legibility, though the evidence base has its limits (Engel et al. 2018).
S4 Words and a message	Writing known words, and a short message of one's own. With a printable sheet using the child's own writing lines.	D.4.A.1.e · D.4.B	Writing for a real recipient is meaningful, that is the third pillar in Hirsh-Pasek et al. 2015.

? *Tracing on glass instead of pen on paper. Isn't that exactly the wrong way round?*

The objection is fair, and the app shares it. That is why every writing task has a printed counterpart, and the analogue cards lead to chalk, sand and a water brush. The screen shows the starting point, the direction and the order. Writing itself happens on paper.

G1

Writing workshop station

A tablet with a stylus, next to a sand tray, a water brush and paper with the right ruling. The app shows the due letter, the child writes it three times by hand, and you confirm it.

G1, G2

Personalised homework

Instead of a photocopied sheet, one page per child with exactly that child's due letters and confusion pairs. One click, one page, the same script as in the exercise book.

SCHOOL

A chalk playground spot

A fixed spot with giant letters and a number line that grade 2 maintains. The cards point to it.

PARENTS

"Pen instead of finger", thirty minutes

Why tracing on screen is only half the job, and how to support the stroke order at home. Material: the child's own printable sheet.

✦ LEARNING PATH

6 Signs in context, and the keyboard

Special characters are not only traced one by one; above all they are practised in context. A punctuation mark appears at the end of a spoken sentence, an operator inside an equation with a picture of the quantity, a letter inside a gap in a word.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
Z1 Punctuation	A recorded sentence with real intonation, a gap at the end, three marks to choose from. The sentence is then read aloud again with the chosen mark: a wrong choice audibly sounds wrong.	D.4.F.1.a–b	Error control built into the material, from the Montessori tradition: the material itself shows whether it is right, instead of a red cross.
Z2 Letter in a word	A gap at the beginning, in the middle, at the end. The options are the child's own confusions.	D.2.A.1.b · D.1.A.1.d	Confusable characters appear together only once both are secure on their own.
Z3 Plus and minus	3 ? 4 = 7 with two twenty-frame groups moving together. The gap moves between the sign, the result and an operand.	MA.1.A.1 · MA.1.C.2	Understanding the operation before the symbol. The distractors are the signs this particular child actually confuses.
Z4 Greater than and less than	Two quantities, with the point of the sign facing the smaller one. The frame demonstrates it.	MA.1.A.2	Comparing comes before ordering.
Z5 Times and divide	2 ? 2 ? 2 = 6 as repeated combining. 6 : 2 as sharing onto plates, also as an observed task at the table.	MA.1.A.1.c–d	Hands-on first. The symbols come once the action is understood.
T1–T4 Keyboard	Finding characters on a Swiss QWERTZ layout, typing one's name and short words, correcting a mistake oneself, printing a message as a card.	MI.2.3.a–c · MI.1.3.a–b	Keyboard use belongs to cycle 1's application competences; automated typing only in cycle 3. No ten-finger requirement. Typing does not prove handwriting, so the observation tracks both separately.

? *Typing in kindergarten, isn't that too early?*

In kindergarten this path is off by default. It starts where the curriculum places it, and stays at the level of deliberately searching for individual characters. Pasted text and autocorrect are detected and not counted as keystrokes.

G1, G2

Intonation theatre

Children say sentences as a question, an exclamation and a statement; the others hold up the matching mark. Then they fill the same gap in the app.

PLAYGROUND

The operator bus

A chalk bus with stops; children board and alight, the class lays out the sign with sticks. The app then shows the same sum in the twenty-frame.

G1, G2

Class postbox

Each week, every child types a card to another. Printed from the app, delivered by that week's postal worker. Practises typing, reading and social action.

G2

Keyboard scavenger hunt

Finding letters on a printed keyboard before the device comes out. Then the same word in the app.

LEARNING PATH

7 Quantities and arithmetic

The consistent representation is the power of five within the twenty-frame, as in the Swiss Zahlenbuch, the maths textbook used in schools. Children build quantities instead of clicking digits. There is no time tracking and no rapid-fire calculation against the clock.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
R1 Identifying and building quantities	Tapping dots in the twenty-frame, dragging counters, a flash glance at a row of five.	MA.1.A.1.a–b · MA.1.C.1	A developmental build-up of number and operation (IES Teaching Math to Young Children). Finger patterns have mixed evidence: Gracia-Bafalluy and Noël 2008 positive, while a study with 102 kindergarten children found no advantage over a control training (Frontiers 2020).
R2 Number decomposition	A shaking box with every decomposition up to ten. The decomposition house is also available as a printable sheet.	MA.1.A.2.b · MA.1.C.2	Decomposition is the basis of calculating without counting one by one.
R3 Number line and neighbours	Placing jumps on the number line, finding neighbouring numbers, forwards and backwards.	MA.1.A.1.c–d	A linear board game clearly improved number-line estimation in 36 preschoolers; a colour-based game did not (Siegler & Ramani 2008). Walking the number line worked better in 33 first-graders than the same exercise without a link to magnitude (Link et al. 2013).
R4 Number word, quantity, digit	Three directions with audio: hearing the number word, building the quantity, choosing the digit.	MA.1.A.1.b	The triangle of number word, quantity and digit is established tradition in early mathematics teaching.
R5 Tens and ones	Bundling, a tens-and-ones chart, the number range to 100 towards the end of the cycle.	MA.1.A.1.c · MA.1.A.2.c–d · MA.1.A.3	The bundling principle, hands-on before symbolic.

? *And if a child solves everything by counting one by one, will I see that?*

You see which decompositions still need help and which characters get confused, per child. That is a basis for a support goal. It is not a maths test, and the app says so too.

K, G1

A number line in the corridor

A line from zero to twenty on the floor, tape is enough. Every round ends with “run to 14”. Two minutes, then back.

G1, G2

Maths market

A project week with a play shop. The children bundle and pay with tens and ones, and the app supplies price tags and matching tasks.

FAMILY

The shaking box as a weekly task

Parents need one cup and ten bottle caps. The child enters the result in the app; the prompt is spoken in the family’s language.

SEN

Confusions as a support goal

Pairs such as plus and minus, or six and nine, appear per child in the adult view, together with the decompositions still being solved by counting.

LEARNING PATHS

8 Shapes, patterns, thinking and media

Two learning paths that often run alongside everyday life: sorting and comparing, which later underpins mathematics and computer science, and a deliberate awareness of the very device in the child's hands.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
D1 Sorting	Ordering by colour, shape and size. Guessing someone else's rule.	MA.2.A · MI.2.1.a	Classification is a precursor of number sense and computational thinking.
D2 Patterns and sequence	Continuing patterns, inventing your own, finding the mistake in a pattern.	MA.2.C · Access point 5	Pattern learning is one of the strongest predictors of early mathematics. Not backed here by a study of its own.
D3 Arranging and rotating shapes	Assembling shapes, a puzzle made from the child's own picture.	MA.2.A–B	A solved puzzle is not proof of intelligence or memory, and the app does not present it as such.
D4 Position, length, data	Longer and shorter, tally marks, material from everyday life.	MA.3.A.1 · MA.3.C	Individual activities do not cover the whole area of measurement and data.
M1–M2 Media experience and own pictures	Conversation cards for adults; the child tells about it using three faces. Taking, saving and finding one's own play pictures again.	MI.1.1.a · MI.1.2.a–b · MI.2.3	Talking about media experiences and feelings is part of the curriculum. Uggadugu is itself a media experience, and makes that the subject.
M3–M4 Instructions and one's own card	Putting three pictograms per activity card into the right order. Designing a card with a picture and typed text, printing it, presenting it.	MI.2.2.a · MI.1.3.a–b	Task analysis is listed in the NCAEP review as an established practice in adult-led support; the app uses at most three steps.

? *Media literacy taught through an app? That sounds like putting the fox in charge of the henhouse.*

The objection is fair, and that is exactly why it is worthwhile. The children observe a product they use every day: when do I want to carry on? Why does nothing here start by itself? The contrast with an autoplay video becomes visible through their own experience, not through a handout.

K, G1

Robot game

The teacher is the robot, and the children give instructions step by step. Following picture instructions without a device, then ordering a picture sequence in the app.

NEIGHBOURHOOD

A pattern walk

Photographing patterns on fences, paving and façades, loading them as play pictures into the puzzle, then recreating them with natural materials.

G2

"What does the app do to me?"

The children observe themselves and compare it with apps that keep playing on their own. Media literacy through their own case.

G2, DAZ

Language pack workshop

Parents with a different first language record the word list in their language at the school. The class hears the words on the listening path; the recordings stay local.

MODULE

9 The clock

The clock is an original design, not a copy of the Swiss railway clock. The hands are always called the hour hand and the minute hand. The path follows the documented order of acquisition: daily routine, single-hand clock, full and half hours, quarters, five-minute steps, digital and analogue, duration.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
U1 Daily timeline	The day as an arc of the sun. Ordering one's own routines, with the clock showing the matching time.	MA.3.A.2.a · NMG.9.1.a/d	An understanding of time develops through routines; daily schedules are the anchor.
U2 Single-hand clock	Only the hour hand. "Just after five", "nearly three".	MA.3.A.2.b, preliminary stage	The single-hand clock is established teaching practice without a dedicated efficacy study: the child learns that the hand moves before the second one joins in.
U3 Full and half hours	The minute hand links in, and a pie slice shows the part of the hour passed. "Half past two" is its own language layer per language.	MA.3.A.2.b, basic requirement	Order of acquisition, and the earlier readability of digital times: Boulton-Lewis, Wilss and Mutch 1997. Typical errors such as swapped hands: Gürefe and Özdil 2019, a small sample.
U4–U6 Quarters, five minutes, digital	The pie slice as a quarter, a minute ring as a support that fades away, a 24-hour ring on the inside.	MA.3.A.2.d	Telling the time is disproportionately hard for children with mathematical difficulties (Burny, Valcke & Desoete 2012). Hence no time pressure, and observation instead of diagnosis.
U7–U8 Duration and the world clock	Estimating duration, then measuring it, with a real hourglass instead of a countdown. Also the time at a place on the globe, day and night, and the East African way of counting hours from sunrise.	NMG.9.1.c/e · MA.3.A.2.f/g	Experiencing and estimating duration is curriculum content. Language shapes how time is read, so the language layer belongs in the language pack.

? *Why do so many children say "half four" when it is 3:30?*

Because the German form points to the coming hour, while the English form points to the one just past. The app applies its own rule per language, and builds exactly this confusion in as a distractor, instead of skating over it. There are twenty minutes of material on this for a parents' evening.

K, G1

Class-clock ritual

Three times a day, a child sets the single-hand plate clock to "about now". The app shows the same time live.

K, G1

The class daily timeline

The timetable as an arc of the sun on the wall. The children order the cards each morning.

G1, G2

Clock hunt

Finding clocks in school and on the way there: church tower, station, oven. Digital or analogue?

PARENTS

"Half past two", twenty minutes

Why "hour hand" beats "little hand", and three everyday routines for practising the clock.

MODULE

10 Earth and countries

Two levels. “Discover” belongs to cycle 1: spinning the globe, marking one’s own place, finding the places of people the child knows. “Explore” is marked as cycle 2 and brings in continents, countries, sizes and distances.

BUILDING BLOCK	WHAT THE CHILD DOES	LEHRPLAN 21	BASIS AND LIMIT
E1 My places	A spinning globe on which day and night move across the surface. “My place” and the places of people the child knows, with Ugu travelling there.	NMG.8.4.b, cycle 1	Children build up their mental model of the Earth step by step (Vosniadou & Brewer 1992). That is why the globe is always a sphere and never a flat picture, and the zoom stays limited.
E2 Direction and position	Up and down, north and south, a compass rose on the globe.	NMG.8.4.a · NMG.8.5.c	Spatial concepts within a child’s own everyday experience are cycle 1 content.
E3–E5 Continents, Switzerland, the world	Finding and naming from memory, tapping neighbours, the layered “onion” of home town, canton, country and continent.	NMG.8.4.d–f, cycle 2	Active recall rather than re-viewing improves map learning (Carpenter & Pashler 2007). Spatial hierarchies are an achievement children still have to build up (Piaget & Weil 1951).
E6 Size and distance	Sliding the outline of one country over another, area expressed as multiples of Switzerland, distance as an arc on the sphere.	NMG.8.4.f, cycle 2	Flat maps distort: the Mercator projection enlarges Europe and shrinks Africa. Size comparisons therefore only happen on the sphere.
E7 Earth and sun	The day-night boundary, the seasons, the time at a given place. The same calculation drives the clock module’s daily timeline.	NMG.9.1 · NMG.8.4	The sun’s position from date and time, accurate enough for day and night. There is no locating of the child; “my place” is set by hand.

? *Talking about children’s origins in class, isn’t that sensitive?*

It can be sensitive, and that is exactly why the task is kept narrow: each child marks the places of people they know. There are no flags, no anthems, no rankings and no judgement of borders. The globe becomes a map of the class, not a map of nations.

K TO G2, DAZ

“Who lives where?”

Each child marks their family’s places on the class device. Connects the curriculum reference with the social access point and with the family’s language.

YEAR 2, CYCLE 1

Partner class in Kampala

The world clock shows that it is one hour later there in summer and two in winter and that children count hours from sunrise. Letter cards to a class that uses the same app in Luganda.

PE

The sun carousel

One person with a lamp is the sun, and the children walk the yearly circle as the Earth while spinning. Afterwards, looking at the day-night boundary on the globe.

FAMILY

Is it light there right now?

One stone on a ball for every person the child knows. Ask about it during the next phone call.

✦ ANALOGUE ACTIVITIES

11 Ugu goes outside

Every building block comes with three activity ideas along three axes: body for large-motor and outdoor activities, hands for arranging, touching and writing, and people and everyday life for family, setting the table and being out and about. The app fills the ideas with the characters the child is currently practising or confusing.

HOW A BLOCK ENDS



The block ends after the round in progress, never mid-task. There is no countdown and no two-minute warning. Six missions have a result the app checks: the shaking box, sharing fairly, the flash glance, the initial-sound hunt, rhyme pairs, syllable boxes.

TOOL	HOW IT WORKS	SOURCE	LIMIT
Movement that maps the content	The number as a place on a line, the letter as the path traced by an arm	Link et al. 2013; Educational Psychology Review 2024	Movement with no link to the content brings no benefit, or costs something. That is why there is no “hop five times”.
Touch	Tracing string, sand and dough blindfolded	Bara, Gentaz & Colé 2004	Kindergarten age, adult-led training
Teaching instead of learning	The child teaches the cuddly toy what it has just played	Chase et al. 2009	Documented for grades 5 and 8 with a computer agent. For five-year-olds it is an assumption.
Choice	Two or three cards to choose from	Shogren et al. 2004	Studies mostly with children with disabilities or behavioural difficulties
Outdoors	Outdoor cards are preferred when adults allow them	Faber Taylor & Kuo 2009	Small sample
Excluded	Brain Gym, and the claim that cross-lateral movements connect the brain hemispheres. Learning styles too.	Hyatt 2007	Such movements may appear as play, never with that justification.

SCHOOL

Playground card set

The cards hang printed by the playground; whoever is on duty draws one for the class. No device needed.

DAY-CARE

Activity cards by access point

The same set with a goal, material and a conversation prompt, sorted by the nine access points, for day-care settings with no screen at all.

HOMESCHOOLING

A printable day plan

The “first, then” plan has slots into which played cards are moved. The portfolio export lists them under hands-on activities.

NEIGHBOURHOOD

An intergenerational workshop

Grandparents and children play “rhyme box”, “hidden hand” and “human clock”. The children explain the app to the adults.

EVERY CHILD COMES ALONG

12 The support profile

The profile describes barriers, never diagnoses. It is set by parents, a teacher or a special needs teacher, stays on the device, and counts under data protection law as potentially especially sensitive. That is why it never goes to a server.

SETTING	BARRIER IT LOWERS	METHOD	TIP FROM PRACTICE
Low stimulus	Over-stimulation, distraction	Visual reduction (UDL)	Useful in the evening even for children without particular needs. Switches on automatically when the device is set to reduced motion.
Large, fewer options	Search effort, working memory	Representation (UDL)	For children who guess, try fewer options before adding more help.
Picture and audio, slower	Language comprehension, reading	Visual support (NCAEP)	The normal setting for DaZ children. “Extra slow” plays the clips at a gently reduced speed.
High tolerance, tap instead of drag	Fine motor skills	Expression (UDL)	Left-hand tolerance is separate. Tracing with a finger is never a judgement on handwriting.
Symbol keys as the answer	Spoken language	Augmentative and alternative communication	Every analogue card has a route without speaking: pointing, walking over, placing.
Switch control	Motor skills	Scanning at an adjustable rate	The only place in the app with a fixed rhythm. Even so, nothing is measured.
Round length, reward picture and confetti	Load, motivation	Engagement (UDL)	The reward picture and confetti are on by default. If they distract or crowd out enjoyment of the activity, switch them off under “Supports”. With supports from a class code they are off; switch them on then only when a professional judges it necessary.
Schedule and announcement	Predictability	Visual structure (NCAEP)	The schedule can be printed and also works for the day at home.
Fixed help level, wait time	Fading too fast or too slow	Prompting, Time Delay	The app never goes below the level that has been set. Only the adult sees suggestions to change it.

? *Can a child tell that they have a different profile from the others?*

No. The profile only changes how tasks look and how answers are given. There is no visible mode, no label and no separate learning world. Two children sitting side by side work on the same task, one with two options and symbol keys, the other with six candidates.

AT A GLANCE

13 Fourteen formats for everyday use

The same content, embedded in different ways. The right-hand column says what the app contributes, so you do not have to build the rest yourself.

FORMAT	WHAT HAPPENS	WHO IT'S FOR	WHAT THE APP CONTRIBUTES
A station in free play	One device, two children, ten minutes, then the matching card at the table next to it	K	Class code with one learning path, printable cards
Personalised homework	One sheet per child with their due characters in the school script	G1, G2	A printable sheet from the item memory
Weekly mission	One mission with a result to log, as a family task	K, G1	A mission card with a QR code, prompt in the family's language
Playground card set	Printed cards by the playground; whoever is on duty draws one	School	A card set with no device
Tandem: G2 with K	Older children set tasks, younger ones solve them, then roles swap	G2 and K	The bottle-cap workshop, nonsense words, the number line
Project week: maths market	A play shop with tens and ones, price tags from the app	G1, G2	Operator tasks drawn from everyday shop life
Project: "who lives where?"	A globe of the class's origins, with no flags	K to G2, DaZ	Earth module level 1, a bridge to family languages
Partner class	Letter cards to a class in Uganda using the same app	Year 2, cycle 1	The world clock, the keyboard learning path
Language pack workshop	Parents record the word list in their language	DaZ, parent engagement	Workshop mode, consent, local storage
Parents' evening workshops	"Listening before reading", "pen instead of finger", "half past two", twenty to thirty minutes each	Parents	The app plays sounds and times aloud, plus the child's own printable sheet
Day-care without a screen	Activity cards and audio for circle time, a module for professionals	Day-care, playgroup	Cards by the nine access points, rhymes and initial sounds to listen to
Homeschooling	A printable day plan, portfolio export for the annual report	Families	Schedule, observations per competence, a note on the limit
Intergenerational workshop	Grandparents and children play the cards; the children explain the adult view	Library, neighbourhood	Card set and adult area
Early German-language support	Parent support at home, an interface in the family's language, the listening path without letters	Municipalities, playgroups	Family languages, everyday German vocabulary with picture and audio

TO KEEP THINGS CLEAN

14 Limits, data protection and the legal side

What you can say when the school leadership, parents or a specialist agency ask. Every line is a rule the product holds to.

TOPIC	RULE	SOURCE
Children's data	On the device only. No account, no transfer to a server, no telemetry. Export requires an active action by an adult. The app sends no children's data to us; we do not process personal data on your behalf. What the school itself has to check for data on the device follows its cantonal data protection law.	Data Protection Commissioner, Canton of Zurich, digital tools in schools
Support profile	It allows inferences about a disability, even without a diagnosis field, and counts as potentially especially sensitive. That is why it stays local.	Art. 5(c) of the revised Swiss Data Protection Act (nDSG); the GDPR when used in the EU
No diagnosis	Uggadugu is a learning product. It does not use terms such as therapy, treatment or diagnostic assessment. What is appropriate: designed to be accessible, with adjustable support for different learning starting points.	Distinction from a medical device
No efficacy claim	The studies in this overview apply to methods. Claims of effectiveness about the product itself would be misleading without a study of its own.	UNESCO GEM 2023 on the limited independent evidence for education technology
Curriculum	Competence codes reference the Zurich version; they are not an official endorsement. The app does not replace any mandatory teaching material. French-speaking Switzerland and Ticino have their own curricula and their own school scripts.	EDK, curricula of the language regions
School script	The Deutschschweizer Basisschrift applies in the Swiss edition, and the letterforms remain unchanged. Outside Switzerland, the script recommended for that region is used.	basisschrift.ch, use of the Basisschrift
Screen time	The app counts only its own time. There is no child mode for day-care.	WHO 2019, Pro Juventute
Homeschooling	The portfolio export documents progress in the competences covered, never every subject area, and is not an official record.	Guidance note on private tuition, BKD Bern
Supervision	The app never tells a child to go outside alone. Outdoor cards appear only with permission, and the text for children says: "Ask your grown-ups."	Product rule

? *What do I tell parents who ask about data protection?*

That there is no account, no sign-up and no address. That everything their child does stays on the device, and that they themselves decide whether anything leaves it, as a printed sheet or as an export. Anyone who wants more detail finds the same information on the app's legal page.

APPENDIX

Sources

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CITED WITHOUT A LINK

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✦ OVERVIEW FOR TEACHERS

What is missing from this booklet?

This overview keeps being written. If a learning path lands differently in your classroom than described here, or if a wording goes too far: that is the most useful feedback there is.

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