



The Sparkli Handbook

A guide for parents, guardians, and teachers on what Sparkli is, how it teaches, and how it keeps children safe.

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1. Welcome to Sparkli

1.1 What Sparkli Is

Sparkli is an AI-powered learning platform for children aged 6 to 11. It turns everyday curiosity into rich, multimodal "expeditions," short learning journeys that mix stories, visuals, videos, debates, challenges, and creative activities.

Every day, children open Sparkli to a brand-new expedition. Topics range from history and science to money, sustainability, design, and emotional wellbeing, always presented in a way that feels like an adventure rather than a worksheet.

1.2 Our Vision

Our vision is a world where every child grows up curious, creative, and prepared to shape their own future. We bring this to life through the SPARK Learning Framework, a research-informed, learner-centered approach that uses generative AI to guide children from inquiry and creation, to dialogue and reflection.

Sparkli focuses on the skills children will need for the world ahead: curiosity, critical thinking, problem solving, creativity, empathy, and agency.

1.3 How a Child Experiences Sparkli

Each expedition is built from a mix of interactive formats designed to suit different learning styles, including:

- **Stories** that introduce a topic through a relatable scenario.
- **Interactive debates and polls** that invite children to weigh in and justify their views.
- **Simulators and games** where children try things out and see what happens.
- **Story builders and creative reflections** where children make something of their own.
- **Knowledge sorts and challenges** that reinforce understanding in a playful way.

As children explore, create, and take on challenges, they earn Sparks, not just for getting answers right, but for engaging with the process. Sparks unlock personalized badges and let children build digital worlds that reflect their own curiosity and growth. Social features will let children challenge friends, remix each other's creations, and celebrate progress together.

Parents and teachers also get insights beyond grades: simple analytics that track a child's curiosity, creativity, and engagement over time, for example, how many expeditions they've completed, how long they spent learning, and which topics they gravitated toward.

1.4 Our Approach: Guiding, Not Answering

Sparkli is deliberately not designed to simply answer children's questions. Instead, it guides children through the process of discovering their own answers, helping them grow into confident, thoughtful, future-ready learners.

This means that when a child asks "why is the sky blue?" or "could we live on Mars?", Sparkli doesn't just deliver a fact. It turns the question into a short journey of discovery, creation, reasoning, and reflection (see Section 2).

1.5 Who This Document Is For

This guide is written for parents, guardians, and teachers who want to understand how Sparkli works before, and after, their children start using it. It covers:

- How Sparkli teaches, and the learning science behind it (Section 2).
- How content adapts to a child's age (Section 3).
- The safety, ethical, and privacy foundations that protect every child using Sparkli (Section 4).

2. The SPARK Framework

2.1 Overview: From Curiosity to Reflection

Every expedition in Sparkli follows a five-stage learning framework, called the **SPARK Framework**: Start with Wonder, Pursue Discovery, Apply & Create, Reason through Debate, and Kindle Reflection.

This pedagogical framework was developed specifically for AI-augmented, child-centered inquiry learning, and is grounded in well-established learning science: inquiry-based learning, constructivist theory, experiential learning, multimedia learning, dialogic argumentation, and self-regulated learning (see 2.2).

The key idea is that AI does not replace good teaching design, it operates inside it. Generative AI is used to create personalized content and activities for each stage, but the overall structure of the learning journey stays consistent and pedagogically sound, every time.

Start with Wonder

Focus: capturing and sustaining natural curiosity.

Every expedition begins with a question, either one a child asks themselves, or one drawn from Sparkli's daily topics. This stage activates what a child already knows, creates relevance, and sets the tone for an adventure rather than a lesson. For example, a child's question "how do robots learn?" might become the starting point for an expedition about patterns, data, and how machines recognize things.

Pursue Discovery

Focus: building understanding through guided exploration.

Children are introduced to the core ideas behind their question through short explanations, visuals, and interactive activities, such as flashcards, fill-in-the-blanks, multiple-choice

questions, and sorting tasks. The goal is not to dump information, but to give children just enough of a foundation to explore further and start forming their own understanding.

Apply & Create

Focus: transforming knowledge into creative action.

Children put what they have discovered to use, designing, building, simulating, or solving a problem. This might mean designing a story-based solution to ocean plastic pollution, creating a simple budget for a lemonade stand, or building a narrative that explains how AI recognizes patterns. This stage moves learning from "I understand this" to "I can do something with this."

Reason through Debate

Focus: developing reasoning and the ability to see more than one side.

Children consider a question, dilemma, or scenario connected to their topic and are asked to share and justify their thinking, for example "should a robot be allowed to make choices for a person?" or "is it better to save money or spend it on something you need now?" These debates are carefully designed to be age-appropriate and framed as exploration, not competition. Children learn that thoughtful people can see the same issue differently, and that a good answer is one backed by reasons.

Kindle Reflection

Focus: strengthening understanding through reflection.

Every expedition ends with a moment of reflection. Children are prompted to think about what surprised them, what they understand better now, what was difficult, whether their opinion changed, and, importantly, what new question they would like to explore next. This final prompt connects the end of one expedition to the beginning of another, turning reflection into a bridge back to curiosity.

2.2 Why This Approach

The SPARK Framework is not just a fun structure, it is grounded in decades of research on how children learn best:

- **Inquiry-based learning** shows that starting with a learner's own question creates motivation and relevance.
- **Constructivist theory** (Piaget, Vygotsky) shows that children build understanding actively, through interaction and guided experience, not by passively receiving information.
- **Experiential learning** (Kolb) shows that knowledge sticks when children apply it through concrete, creative tasks.
- **Multimedia learning** (Mayer) shows that combining visuals, text, and interaction, without overloading children, supports understanding.
- **Dialogic argumentation** shows that explaining and defending ideas, in an age-appropriate way, deepens reasoning.
- **Self-regulated learning** shows that reflection helps children consolidate what they have learned and become more aware of how they learn.

In short: AI is used as a tool to generate content and activities, but the learning design itself is grounded in research, not invented on the fly.

3. Ages & How Content Adapts

3.1 Ages as "Levels of Thinking"

Sparkli organizes content by age, spanning ages 6 through 11. It is helpful for parents and teachers to think of these less as strict age bands and more as levels of thinking: the same topic can appear at every age, but the way a child is asked to engage with it becomes more complex at each stage, through text structure, sentence complexity, and vocabulary.

This means a six-year-old and a ten-year-old can both explore "how do robots learn?", but the six-year-old might sort pictures into groups, while the ten-year-old debates whether an AI's decision was fair.

Because school systems vary by country (grades in the US, years in the UK, and different systems elsewhere), each age below is paired with an approximate school-year equivalent. This is intended as a general guide rather than an exact match, and parents and teachers can adjust a child's age setting in Sparkli at any time, based on how the child is thinking rather than their exact age or school year.

Age 6 to 7: Building Reading Foundations

Typically Year 1 to 2 / Kindergarten to 1st Grade

Designed for emerging readers, with short sentences (five to ten words), high-frequency words, and literal, easy-to-follow language. Information is presented in a simple, sequential order. Activities focus on noticing details and basic categorization, and everything is anchored in a child's everyday experiences, told in a warm, direct voice.

Age 7 to 8: Cause, Effect & Early Debate

Typically Year 2 to 3 / 1st to 2nd Grade

For children becoming fluent readers with more organized thinking. Vocabulary becomes more descriptive, sentences more varied, and topics are explored through cause-and-effect relationships and simple problem-solving. Children begin to encounter branching stories with trade-offs, and gentle debates that introduce different points of view.

Age 8 to 9: Reading to Learn

Typically Year 3 to 4 / 2nd to 3rd Grade

This is the stage where children shift from "learning to read" to "reading to learn." Sentences become more complex, paragraphs better developed, and subject-specific vocabulary is introduced and clearly explained. Children move beyond literal recall to make simple inferences, supported by debates, branching scenarios with ethical trade-offs, and more advanced categorization tasks.

Age 9 to 10: Multi-Step Reasoning & Trade-offs

Typically Year 4 to 5 / 3rd to 4th Grade

Children at this stage start analyzing more complex relationships and applying logic across multiple steps. Content explores the "why" and "how" behind ideas, and activities include multi-select questions, scenarios with two competing priorities, and debates where children must anticipate and respond to opposing views. This stage emphasizes academic vocabulary and reasoning, often through text-based activities.

Age 10 to 11: Abstract Reasoning & Argument Analysis

Typically Year 5 to 6 / 4th to 5th Grade

The most advanced stage, designed for children capable of abstract reasoning and combining information from multiple sources. The writing style approaches high-quality non-fiction, with sophisticated vocabulary and layered themes. Children are asked to evaluate the strength of different claims, analyze persuasion strategies, and work through ethical dilemmas that don't have one easy answer, defending their reasoning with evidence.

3.2 How the Same Topic Scales Across Ages

Because Sparkli's content library is organized as a spiral curriculum, many topics, for example simple machines, money and budgeting, ecosystems, or how AI works, appear across multiple ages, each time with greater depth and complexity. A 6-year-old might sort pictures of "things that use energy"; an 11-year-old exploring the same broad topic might debate the trade-offs of different energy sources.

This means children can revisit favorite topics as they grow, and always find something new to discover, and that the right setting for a child is about how they think, not just how old they are. Parents and teachers can adjust a child's age setting at any time.

4. Safety, Ethics & Privacy

Trust is the foundation of Sparkli. This section explains, at a high level, how Sparkli keeps content safe and age-appropriate, and how it handles data and privacy. Sparkli does not publish its full technical safety rules, doing so would make it easier for bad actors to find ways around them, but this section outlines the principles and categories behind the approach. Parents and teachers are encouraged to share feedback; if something in Sparkli doesn't feel right, that feedback directly shapes how these guidelines are refined.

4.1 Content Safety Filters

Every expedition, whether part of Sparkli's daily content or created by a child, is automatically screened against a comprehensive, regularly updated set of safety filters. These filters cover:

- **Misinformation & conspiracy theories:** Content stays grounded in factual, scientific consensus.
- **Mental health, self-harm & body image:** Sparkli screens for signs of self-harm, disordered eating, or unhealthy body-image content (including coded slang), and responds by steering toward supportive, age-appropriate framing.
- **Mature media & games:** Shows, games, and characters aimed at adult audiences are filtered out, even when they resemble children's cartoons.
- **Substances, gambling & other adult vices:** Alcohol, vaping, drugs, and gambling, including newer trends and slang, are excluded entirely.
- **Violence & weapons:** Sparkli distinguishes between harmless fantasy or game references and realistic depictions of weapons, violence, or harmful instructions, which are always blocked.
- **Illegal activity & online scams:** Sparkli does not generate how-to content for hacking, scams, or other criminal activity, including scams that target children in games.
- **Extremism, hate speech & bullying:** Hateful ideologies, extremist groups and figures, slurs, and bullying behaviors are filtered, with zero tolerance.
- **Frightening or disturbing content:** Sparkli blocks "corrupted cartoon" horror trends and content that twists familiar children's characters into scary or disturbing scenarios.

- **Dangerous viral challenges:** Trends that encourage children to do something physically risky for views are recognized and blocked, even as new ones emerge.
- **Sexual content:** There is zero tolerance for sexual content of any kind. Bodies are only ever discussed in plain, biological, educational terms.

These filters are reviewed and updated regularly to keep pace with new slang, trends, and "code words" that children encounter online, including terms designed specifically to slip past content filters.

4.2 Our Editorial Lens

Before any topic becomes a daily expedition, it is evaluated against five guiding principles, set to Sparkli's youngest users:

- **The youngest reader comes first.** Content is tuned for a six-year-old, even within the 6 to 11 age range.
- **Parents go first on life's big topics.** Subjects like death, where babies come from, religious truth, or why people go to war are left to be introduced by families, in their own way and time, not by Sparkli.
- **Wonder over weight.** If a topic mainly produces significant worry, sadness, or confusion, it is not used, even if it is true and important.
- **Accurate, but selective.** Sparkli never distorts facts to make something cheerful; it chooses which true, age-appropriate parts of a story to tell.
- **Sparkli describes, it does not persuade.** On topics where people genuinely disagree, such as beliefs, politics, or social debates, Sparkli describes different views in neutral terms and never tells a child what to think or whose "side" is right.

4.3 Safety for Child-Created Expeditions

Children love asking their own questions, and Sparkli is built to encourage that through Ask Sparkli. When a child types in a topic or request, it goes through the same safety screening as Sparkli's daily content, with extra layers because requests typed by children can be unpredictable:

- **No exceptions for phrasing.** Asking in a roundabout way, using slang, or framing something as "just pretend" does not bypass the filters.
- **Coded language is recognized.** Filters are specifically tuned to catch slang and "code words" children pick up from social media.
- **Redirection, not just refusal.** If a request touches on something Sparkli won't cover, it does not just say no; it offers an engaging, related alternative to explore instead.
- **Extra care for sensitive language.** Anything that suggests a child may be struggling, emotionally or otherwise, is treated with particular care, prioritizing supportive framing over content delivery.

Beyond filtering, every Ask Sparkli response is held to the same quality and integrity standards as Sparkli's daily content:

- **Facts only, never invented.** Answers are built from real, accurate information. Sparkli never fabricates facts, quotes, experts, or studies. Where something is uncertain or genuinely disputed, this is stated plainly rather than presented as settled.
- **Depth matched to the question.** If a child's question is broad or above their grade level, Sparkli does not skim the surface or overwhelm them; it identifies the single most useful, accurate, age-appropriate core idea and explains that well.
- **Sensitive topics handled with care.** Questions that touch on tragedy, violence, or difficult subjects are answered honestly but never graphically. The focus stays on context, human choices, courage, and lessons that can be carried forward, rather than shock or drama.
- **Balance on genuinely two-sided questions.** Where a topic has real, reasonable disagreement, different perspectives are presented evenly, without steering a child toward a particular view. Sparkli does not manufacture debate around settled facts or harmful behavior for the sake of false balance.

- **A structured learning journey, not a lookup.** Every child-created expedition follows the same SPARK Framework as daily content (see Section 2): it opens with the child's question, builds understanding, answers clearly, and closes by sparking a new question to explore.
- **Images follow the same rules.** Any image generated alongside an answer is screened under the same safety filters as the text, and never includes text, labels, or hidden messages.
- **Quality review before delivery.** Every generated expedition is checked against a consistent set of standards for accuracy, tone, and grade-level fit before it reaches a child.

4.4 Data Privacy & Parental Consent

Sparkli is built by SPARKLI AG, based in Switzerland, and is designed from the ground up to be COPPA and GDPR-K compliant, the main frameworks governing children's data in the US and EU. Sparkli's key commitments are:

- **No tracking.** Sparkli does not use behavioral tracking or advertising.
- **Verified Parental Consent (VPC).** Any data collection involving a child requires verified consent from a parent or guardian.
- **No sale of data.** Sparkli does not sell, rent, or trade personal information, ever.
- **Limited third parties.** Sparkli only works with a small number of trusted service providers, for example secure hosting and analytics, and only as needed to operate the platform.
- **Swiss-grade data protection.** Data is stored and processed in line with the Swiss Federal Act on Data Protection (FADP) and the EU GDPR.
- **Parents' and teachers' rights.** Parents and teachers can access, correct, or request deletion of their own and their child's information by contacting Sparkli.

As Sparkli moves from early access toward public launch, its full in-app privacy policy will be published and will reflect the complete data practices of the app, in line with the commitments above. Parents and teachers will be notified of any significant changes.

5. Content Pillars – What Kids Can Do

Sparkli offers several ways for children to learn: a fresh expedition every day, structured Pathways that build skills over time, an Explore library children can browse by interest, and the ability to create an expedition from their own question. This section explains how each of these is built.

5.1 Categories

Every topic in Sparkli, whether it's part of a daily expedition, a Pathway, or something a child explores on their own, belongs to one of twelve broad categories. These categories give every piece of content a consistent home, making it easier for children to discover topics by subject area, and for parents and teachers to see at a glance what kind of learning a topic supports.

A topic is placed in the category that best matches its main learning goal, even if the example used to teach it comes from somewhere else. For instance, an expedition about counting coins is filed under Math & Logic, even though the example is about money.

The 12 categories are:

- **Space & Universe:** Objects, systems, or exploration beyond Earth, rather than the tools used to explore them.
 - **Math & Logic:** Reasoning with numbers, measurement, shapes, patterns, logic, and data, even when the examples come from another subject.
 - **Matter & Energy:** How materials behave, and how motion, forces, energy, light, sound, electricity, or chemical change work as general scientific principles.
 - **Earth & Environment:** Earth's land, water, air, weather, climate, resources, or environmental change, as Earth systems.
 - **Life & Organisms:** Non-human living things, their life cycles, habitats, relationships, or ecosystems.
 - **Body, Mind & Health:** The human body, brain, feelings, habits, safety, or wellbeing.
 - **History & Time:** People, events, inventions, or civilizations of the past, and how life has changed over time.
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- **People & Culture:** How people live, organize themselves, and make sense of the world, including communities, traditions, and shared practices.
- **Arts & Expression:** Artistic work used to express ideas, feelings, or beauty, rather than to solve a functional problem.
- **Money & Business:** Earning, spending, saving, trading, jobs, entrepreneurship, and how goods and services move through an economy.
- **Design & Engineering:** Designing, building, testing, or improving physical tools, structures, and mechanical systems to solve practical problems.
- **Computers & Tech:** Coding, programming, or improving digital systems, software, and electronic hardware to solve complex problems.

5.2 Daily Expeditions: How Topics Are Chosen

Every day, Sparkli offers a new expedition based on a historical event, a notable person, an invention, or an observance day connected to that date. Before any date becomes a daily expedition, it goes through a simple five-question check:

- **The dinner-table test:** would a parent be happy to hear their child explain this, with the parent in the room?
- **The survival test:** does the lesson still work if the heaviest or scariest part is left out?
- **The feeling test:** does this leave a child curious and delighted, rather than worried or frightened?
- **The neutrality test:** are we describing something, rather than telling children what to think about it?
- **The parent-first test:** is this something a parent would want to be the one to introduce?

Based on this check, each date is placed into one of three tiers, Cover Freely, Cover With Care, or Avoid (see Section 4.2). When a date falls into "Cover With Care," the expedition leads with the most inspiring fact, states any harder fact plainly and only once, avoids dramatizing it, and ends on a note of hope or progress. If a date can't be told in a way that fits Sparkli, the team simply chooses a different topic for that day rather than forcing it.

On top of passing this check, a good daily expedition aims for a "wow, I didn't know that!" reaction. Facts are chosen carefully, always accurate, but selected to support a positive, age-appropriate framing. When an expedition is built around an admired person, it's anchored to a value children can relate to, like fairness, kindness, courage, or perseverance, and ends with a small, real-life prompt the child can act on that day.

5.3 Pathways: Structured Skill-Building Curricula

Pathways are structured, multi-age curricula that help children build a specific set of future-ready skills over time, one short expedition at a time. Each Pathway follows a five-stage spiral curriculum: foundational ideas are introduced early (ages 6 to 7) through hands-on, sensory exploration; revisited with more structure and real-world application at ages 8 to 9; and developed into independent projects, reflection, and creation at ages 10 to 11.

As children progress through a Pathway, they take on a new persona at each stage, a fun way of marking how their skills are growing. Sparkli currently offers eight Pathways:

- **Design Thinking & Innovation:** Builds creative problem-solving skills, identifying problems, generating ideas, building prototypes, and improving them through feedback.
- **Digital & AI Literacy:** Helps children understand how technology and AI work, how to use them safely and thoughtfully, and how to start creating with them.
- **Emotional Intelligence (SEL):** Builds self-awareness, empathy, and skills for managing emotions and relationships.
- **Financial Literacy:** Introduces earning, saving, spending, and the basics of how money and trade work in everyday life.
- **Nutrition & Healthy Living:** Builds healthy habits around food, movement, sleep, and wellbeing.
- **Sustainability:** Helps children understand the environment and develop habits and ideas that support a more sustainable world.
- **Global Citizenship:** Explores identity, rights, democracy, and how people across history and cultures have worked together to create a fairer world.
- **Space Science:** Introduces the solar system, Earth observation, and the growing role of space in everyday life, from satellites to sustainability beyond Earth.

Each Pathway's curriculum was developed by reviewing leading international education frameworks and national curricula, then identifying the skills and ideas they agree are most important for children at each age. Sources consulted include UNESCO, UNICEF, the OECD, the World Health Organization, the World Bank, and the EU, alongside national curricula from countries including Switzerland, the UK, the United States, Finland, Australia, New Zealand, and Singapore.

5.4 Explore: Personas, Zones & Categories

Explore is Sparkli's browsable library, designed for children to follow their own curiosity. It currently includes 35 "personas" (7 for each age group), organized into themed "zones," covering over 20,000 individual topics in total.

Personas are fun, named identities a child can pick based on their interests, for example, The Creator, The Detective, The Explorer, The Ranger, The Biz Whiz, or The Changemaker. Each persona brings together a set of zones that match that interest area.

Zones are themed collections of expedition topics within a persona, for example, "Art Studio," "Invention Lab," or "Game Design and Code." Each zone is tagged with one of twelve cross-cutting categories, so the same zone can be found whether a child is browsing by persona or by subject area.

5.5 Create Your Own: Learning From a Child's Own Questions

Alongside Daily Expeditions, Pathways, and Explore, children can start an expedition from their own question or topic of interest, through a feature called Ask Sparkli. A child might ask something like "why is the sky blue?", "how do volcanoes erupt?", or "what's it like to be an astronaut?", and Sparkli turns that question into a brand-new, one-off learning expedition built just for them.

How a question becomes an expedition. Behind the scenes, Sparkli first identifies what kind of question a child is really asking, whether it's about how something works, how something is made, what something means, why something happens, where something came from, or how two things compare or connect. Some questions, like ethical or open-ended ones, involve

weighing more than one reasonable point of view. Based on that, Sparkli chooses the learning path best suited to the question, so a "how does it work" question unfolds differently than a "why did this happen" question or a "how do these compare" question.

A complete story, not a quick answer. Whatever the question, Sparkli never just returns a fact. Every child-created expedition follows the same five-stage journey as the rest of Sparkli's content: it opens with the child's question, builds the background needed to understand it, delivers a clear answer, invites the child to reason or create something with it, and ends with a reflection that sparks a brand-new question to explore next.

Matched to how the child thinks. Every expedition created this way is shaped to fit the child's age setting, using the same vocabulary, sentence complexity, and reasoning demands as the rest of Sparkli's content for that stage.

Built on the same safety foundation. Every question a child types in passes through the same safety screening as Sparkli's daily content, with extra layers built specifically for the unpredictable ways children phrase things, and the same commitment to factual accuracy, careful handling of sensitive topics, and age-appropriate framing.