

NASCA[®]

NATIONAL ACADEMY OF
STEM, CYBERNETICS & AI

SAMPLE DOCUMENT · v1.0

Scope & Sequence

Primary Band

Grades 1 – 5 · Ages 6 – 11

Term-by-term progression of outcomes, anchor projects and assessment moments across NASCA's eleven STEAM streams.

PHILOSOPHY

How the Primary Band works

The Primary band is built on play, wonder and the language of making. Children move from concrete manipulatives toward symbolic and computational thinking through three weekly studio blocks: a Maker block (hands, materials, tools), an Inquiry block (questions, evidence, talk) and a Code & Story block (visual programming, narrative, performance). No screens before Grade 2; ratios do not exceed 1:14; assessment is portfolio-based, never high-stakes.

ELEVEN STEAM STREAMS

The disciplines that thread through every term

01 AI & Robotics	02 Computational Thinking	03 Maker / Engineering
04 Data Literacy	05 Design Thinking	06 Science Inquiry
07 Math Reasoning	08 Digital Citizenship	09 Sustainability
10 Arts & Storytelling	11 Entrepreneurship	

ANCHOR PROJECTS

One signature build per grade

Grade	Project	What learners produce
Grade 1	Garden of Senses	A living-classroom unit. Children grow, observe and document a salad garden, build paper-circuit seed cards, and present a 'taste festival' to families.
Grade 2	City of Kindness	A scale-model city built from recycled materials with simple Bee-Bot routes. Maps social spaces (clinic, school, market) to civic vocabulary.
Grade 3	Weather Watchers	A four-week field study using analog instruments + Scratch dashboards. Ends with a school weather bulletin filmed by the children.
Grade 4	Bridges that Hold	Design-build cycle of paper, straw and balsa bridges. Introduces force diagrams, fair-test method and a public 'load day'.
Grade 5	Our First Robot	LEGO Education SPIKE Essential. Teams build a service robot for a real school problem (sorting library returns, watering planters), pitched to staff.

TERM-BY-TERM PROGRESSION

What learners do, term by term

Each row is a term. Each column is one of the eleven STEAM streams. Cells describe the learner-facing focus — outcomes, tools and a representative anchor activity. This is a sample; the full curriculum dossier expands each cell into a 4-week unit plan with materials, vocabulary, formative checks and family letters.

Term	AI&R	Comp.Th.	Maker	Data	Design	Sci.Inq.	Math	DigCit	Sust.	Arts	Entrep.
Term 1 - Wonder	Sense the world	Sequencing in stories	Tools & safety	Tally & sort	Ask & sketch	Living things	Number sense	Kind online	Classroom care	Voice & body	Needs vs wants
Term 2 - Make	Bee-Bot paths	Loops in dance	Cardboard build	Pictograms	Iterate model	Materials	Place value	Privacy basics	Reuse studio	Puppet stories	Stalls & swaps
Term 3 - Inquire	Sensors as eyes	Algorithms in recipes	Simple machines	Bar charts	User empathy	Weather & sky	Operations	Search smart	Water & soil	Story arcs	Pricing fairly
Term 4 - Show	First robot	Debug as habit	Wood + paper	Data stories	Public critique	Force & motion	Fractions	Safe sharing	Energy at home	Performance	Pitch day

ASSESSMENT MOMENTS

How we know learning is happening

Instrument	What it looks like
Studio Portfolio	Photo + voice-note evidence captured weekly by the child; reviewed each term.
Maker's Journal	Hand-drawn notebook with prompts: I noticed / I wondered / I tried / I changed.
Public Showcase	Twice yearly. Families and one external 'critical friend' attend.
Skill Ladder	Six rubrics — Curiosity, Care, Craft, Code, Collaboration, Communication.

FRAMEWORK ALIGNMENT

How NASCA maps to the world's K-12 frameworks

Schools adopting NASCA do not abandon their existing curriculum — they upgrade it. Every NASCA outcome is mapped to the framework codes used by your Ministry, board or accreditor. The grid below summarises coverage; the full mapping appendix (available on request) lists every standard code against the term that addresses it.

Framework	Coverage	Notes
CBSE (NEP 2020)	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.
ICSE	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.
IB PYP / MYP / DP	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.
Cambridge Primary–IGCSE	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.
UAE MOE / KHDA / ADEK	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.
KSA Vision 2030	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.
Common Core (US)	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.
NGSS (US)	● Full	Built directly into Maker, Inquiry and Code-&-Story blocks.

ABOUT THIS DOCUMENT

This is a sample preview of the full Scope & Sequence dossier for the Primary Band. The complete dossier is provided to partner schools on signature of a curriculum-licence agreement and includes: (a) week-by-week unit plans, (b) materials and procurement lists, (c) framework code mapping, (d) assessment rubrics, (e) family communication templates, and (f) staff professional-development pathways. Request the full pack at partnerships@nasca.edu.in.

Prepared by the NASCA Curriculum Council. Sample preview — not for redistribution.