

How to use the Springbot Curriculum Matcher GPT

The Springbot Curriculum Matcher GPT helps educators design curriculum-linked experiments using the Springbot and xChip sensors. It is intended to turn a grade, subject, topic, and available sensors into a practical experiment plan, teacher guide, learner worksheet, and ideas for extension activities.

The GPT is designed around the Springbot's ability to collect environmental data using sensors such as air temperature, humidity, air pressure, VOCs, CO₂, light intensity, and acceleration in X, Y, and Z, with data shown on the OLED screen, sent to an MQTT/Kibana dashboard, or saved to a microSD card as a CSV file.

[English GPT](#)

[Afrikaans GPT](#)

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1 Start with a clear request

Tell the GPT four things:

1. The grade
2. The subject
3. The curriculum topic or concept
4. The sensors you want to use

You may also ask for the experiment to link to a UN Sustainable Development Goal.

Example prompt:

“Please design a Grade 6 Natural Sciences experiment using air temperature, humidity, and light intensity. It must link to the South African curriculum and SDG 13: Climate Action. The learners have one hour and can work outdoors.”

2 Add your practical classroom constraints

The more classroom detail you provide, the more useful the output becomes. Include information such as:

- Available time
- Indoor or outdoor activity
- Number of learners
- Number of Springbots
- Whether WiFi is available
- Whether the data should be saved to SD card
- Whether learners are beginners or already know MicroBlocks
- Whether the output should be simple, advanced, or suitable for assessment

Example prompt:

“We have 10 Springbots, 30 learners, no internet, and 60 minutes. Learners must work in teams of three and save their data to the SD card.”



3 Ask for the standard output

The GPT is designed to produce four main outputs:

- A. Experiment plan - This includes the question being investigated, the data to collect, experiment planning, team roles, procedure, data analysis suggestions, and reporting ideas.
- B. Teacher guide - This gives the educator guidance on how to run the activity, support learners, and connect the experiment to the curriculum.
- C. Learner worksheet - This gives learners structured instructions, questions, observations, data tables, and reflection prompts.
- D. Further experimentation ideas - This gives three ways to extend or deepen the activity.

Example prompt:

“Please give me the full standard output: experiment plan, teacher guide, learner worksheet, and three recommendations for further experimentation.”

4 Use the GPT to refine the activity

After the first answer, ask the GPT to adapt the experiment.

Good follow-up prompts include:

- “Make this suitable for Grade 4 learners”
- Add more mathematics.”
- “Reduce this to a 30-minute activity.”
- “Make the teacher guide simpler for a non-specialist educator.”
- “Add a reporting activity where learners create a 30-second video.”
- “Adapt this for a school with no WiFi.”
- “Add assessment criteria and a simple rubric.”



5 Check the final activity before using it

Before printing or using the materials, check that:

- The grade level is appropriate
- The experiment fits the time available
- The sensors listed match the hardware available
- The activity is safe and practical in the classroom setting
- The curriculum link is accurate
- The data analysis is realistic for the learners
- The teacher guide is clear enough for a non-specialist educator

6 Best-use prompt template

Copy and adapt this prompt:

“Please design a Springbot experiment for Grade [insert grade], Subject [insert subject], Topic [insert curriculum topic]. We have [number] Springbots and the following sensors: [list sensors]. The activity must take [time available], be conducted [indoors/outdoors], and learners will work in teams of [number]. We [do/do not] have WiFi. Please link it to SDG [insert SDG if required]. Please provide the experiment plan, teacher guide, learner worksheet, and three ideas for further experimentation.”

This GPT works best when treated as a curriculum design assistant:

give it the teaching context,

ask for a structured draft,

then refine the activity until it fits the educator, learners, hardware, and time available.

