How to use Gemma 4 with the Gemini API and Google AI Studio

Gemma 4 models handle function calls, structured JSON output, and system commands at the model level, rather than through prompt generation techniques.

Google's Gemma 4 family of open-source models is now available through the Gemini API and Google AI Studio. Built on the same research behind Gemini 3, these models offer enhanced inference capabilities, native function calls, multimodal understanding, and a 256K context window in a single open-source package, licensed under Apache 2.0, that you can run anywhere.

There are currently two models available through the Gemini API:

1. gemma-4-26b-a4b-it
2. gemma-4-31b-it

What makes Gemma 4 different?

Gemma 4 models handle function calls, structured JSON output, and system commands at the model level, rather than through prompt generation techniques. The dense 31B model currently ranks #3 among open-source models on the Arena AI text rankings, with the 26B MoE model at #6, competing with models 20 times larger.

Key features:

1. 256K context window on both models
2. Call the original function and the output will be structured.
3. Text, images, and multimedia videos
4. Over 140 languages ??are taught using core language skills.
5. The Apache 2.0 license allows for full, unrestricted commercial use.

Get started with AI Studio

The quickest way to try Gemma 4 is through Google AI Studio. Select gemma-4-26b-a4b-it or gemma-4-31b-it from the model selector, type prompt, and start chatting. You can check system instructions, adjust the temperature, and experiment with multimodal input via your browser. No API key or code is required.

Or click **Get Code** to export Python, JavaScript, or cURL snippets from any conversation.

Using Gemma 4 with the Gemini API

Install the Python SDK:

```
pip install google-genai
```

Set your API key as an environment variable. You can generate a key at aistudio.google.com/apikey .

```
export GEMINI_API_KEY="api-key-c?a-b?n"
```

Create text

Create text with Gemma 4:

```
from google import genai client = genai.Client() response = client.models.genera
```

Pass a system command to set the model's behavior:

```
from google import genai from google.genai import types client = genai.Client()
```

Multi-turn conversation

The SDK provides an automated chat interface that tracks conversation history:

```
from google import genai client = genai.Client() chat = client.chats.create(mode
```

Understanding images

Pass an image along with your text prompt:

```
from google import genai from google.genai import types client = genai.Client()
```

Call function

Define tools as function declarations. The model decides when to call them:

```
from google import genai from google.genai import types # Define the function de
```

Google Search

Based on real-time web data from Google Search, Gemma 4 provides the following responses:

```
from google import genai from google.genai import types client = genai.Client()
```

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