

# AI Content Creation For Productivity

## IMPORTANT LOGIN INFORMATION FOR THE CLASS BELOW

### Google account

1. Sign in to your Google account.
2. If you don't have one, go to <https://accounts.google.com.sg/> and click "Create account". Follow the steps to set up a new account.
3. **Verify your account** by following the prompts to use your phone number or email.

### Gemini (For access to Nano Banana):

1. Go to browser: Type in "<https://gemini.google.com/app>" in the address bar and press Enter.
2. Log In: Select Sign in
3. Select your Google account and enter your password.

### Google Labs:

1. Go to browser: Type in "<https://labs.google/fx/tools/flow>" in the address bar and press Enter.
2. Log In: Click Sign In with Google
3. Select your Google account and enter your password.

### Suno:

1. **Go to browser:** Type in <https://suno.com/> in the address bar and press Enter.
2. **Log In:** Select Continue with Google
3. Select your Google account and enter your password.

## Learning Activity 1 - Image Generation with SCENE

| Inspiration Bank |                                                                                                                                                                                                                                                          |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject          | People - child, teen, adult, elder, toddler<br>Objects - camera, watch, building, school, restaurants<br>Animals - cat, dog, jellyfish, dragon, fox, dolphin                                                                                             |
| Context          | Occasions- bamboo forest, desert dunes, snowy peak, café window, market street<br>Time/Weather - dawn, golden hour,, midnight, foggy, stormy, snowfall<br>Background Elements - skyline, neon billboards, cherry blossoms, lighthouse                    |
| Emotions         | Calm - serene, tranquil, contemplative, gentle, soothing<br>Positive - hopeful, joyful, triumphant, playful, heartwarming<br>Tense - suspenseful, brooding, ominous, wistful, lonely<br>Energetic -dynamic, exhilarating, fierce, spirited, electrifying |
| Narrative        | Actions - gazing, reaching, running, performing, repairing, negotiating<br>Interactions - feeding a koi, guiding a child, releasing lanterns, tending a garden                                                                                           |
| Effect           | Styles -anime, manga, Pixar-like, Studio Ghibli-inspired, fantasy<br>Photography style – portrait, food, street, event, travel, wildlife                                                                                                                 |

Generate images with Nano Banana, **Example Final Prompt:**

*"A curious child in a cozy, sunlit kitchen, with a feeling of warmth and joy, playing with a ball of yarn, in the style of a colorful children's book illustration."*

Draft your prompt with the SCENE Framework based on any of the below subjects:

- Basketball
- House
- Man / Woman / Child
- Food
- Fruit

**Example of SCENE FRAMEWORK below**

|                                                                                                  |                                                                               |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>Subject</b><br>Clearly describing who or what the main focus of your image is.                | An asian barista in his 30s at work                                           |
| <b>Context</b><br>Describe the setting and environment where your subject is                     | In a modern cafe                                                              |
| <b>Emotion</b><br>Define the mood and atmosphere you want the image to convey                    | Feeling focused, calm and cheerful                                            |
| <b>Narrative</b><br>Explain what is happening in the scene or what the subject is doing          | Preparing a cup of coffee behind the counter while interacting with customers |
| <b>Effect</b><br>Portrait, Travel, Street,<br>Choose the visual style or final look of the image | Portrait photography style, hyper real, 8k, 16:9                              |
|                                                                                                  |                                                                               |

Draft your prompt with the SCENE FRAMEWORK below

|                                                                                                  |                                                                                                                 |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Subject</b><br>Clearly describing who or what the main focus of your image is.                | A young child playing basketball                                                                                |
| <b>Context</b><br>Describe the setting and environment where your subject is                     | In front of a beautiful modern house with a green garden                                                        |
| <b>Emotion</b><br>Define the mood and atmosphere you want the image to convey                    | Happy, energetic and natural                                                                                    |
| <b>Narrative</b><br>Explain what is happening in the scene or what the subject is doing          | The child is playing basketball in the garden on a sunny afternoon                                              |
| <b>Effect</b><br>Portrait, Travel, Street,<br>Choose the visual style or final look of the image | Photorealistic photography, natural lighting, realistic skin texture, highly detailed, cinematic look, 8K, 16:9 |

## Learning Activity 2 - Image Generation with DARTS



### Inspiration Bank

|                          |                                                                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Depth of Field</b>    | Shallow DOF: blurred background, soft backdrop<br>Deep DOF: everything sharp, clear background                                                            |
| <b>Angle</b>             | Eye-level<br>Low angle / worm's-eye (looks powerful)<br>High angle / bird's-eye (looks small)                                                             |
| <b>Range of Exposure</b> | Balanced exposure/long exposed<br>Underexposed / overexposed                                                                                              |
| <b>Type of Shot</b>      | Close-up<br>Medium shot<br>Full body<br>Wide / long shot                                                                                                  |
| <b>Source of Light</b>   | Natural: sunlight, golden hour, , window light<br>Artificial: LED, neon, fluorescent, candlelight, firelight<br>Mood: warm, cool, moody, dramatic, gentle |

45

**DARTS – Depth of field, Angle, Range of Exposure, Type of shot, Source of Light**

**Example of DARTS Methodology below**

**Scenario: A cyclist riding through a city at night**

|                                                                          |                                                      |
|--------------------------------------------------------------------------|------------------------------------------------------|
| <b>Depth of Field</b><br>Shallow vs deep depth of field                  | Shallow depth of field, cyclist in focus             |
| <b>Angle</b><br>Camera point of view: eye-level, low, high, aerial       | Low-angle shot                                       |
| <b>Range of Exposure</b><br>Balance exposure / Overexposed               | Slightly underexposed for a moody night feel         |
| <b>Type of Shot</b><br>Close-up, mid-shot, wide shot                     | Wide shot showing the cyclist and surrounding city   |
| <b>Source of Light</b><br>Lighting style: natural, moody, soft, dramatic | Artificial neon street lights and vehicle headlights |

Draft your prompt with the DARTS Methodology below

Scenario: A family walking by Marina Bay Sands

|                                                                          |                                                                                                                           |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Depth of Field</b><br>Shallow vs deep depth of field                  | A warm and loving family walking along the Marina Bay waterfront,                                                         |
| <b>Angle</b><br>Camera point of view: eye-level, low, high, aerial       | with the iconic Marina Bay Sands in the background.                                                                       |
| <b>Range of Exposure</b><br>Balance exposure / Overexposed               | Wide shot, eye-level camera angle, deep depth of field keeping both the family and the architecture in clear focus        |
| <b>Type of Shot</b><br>Close-up, mid-shot, wide shot                     | Balanced exposure with soft natural daylight, creating a warm, cozy, and heartwarming family atmosphere.                  |
| <b>Source of Light</b><br>Lighting style: natural, moody, soft, dramatic | Cinematic composition, elegant and realistic photography, natural colors, beautiful details, and a premium high-end feel. |

## Learning Activity 3 - Putting it All Together



# Inspiration Bank ( ADD FRAMEWORK )

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Add Subjects / Objects</b>           | Person: Man, woman, people, crowd etc<br>Animal: Dog, cat, bird, fish, etc.<br>Object: Chair, table, book, lamp, flower, bridge, wall, drink,<br>Nature: Forest, beach, desert, ocean                                                                                                                                                                                                                                                                                                    |
| <b>Describe Details</b>                 | Size: Small, large, tiny, huge, giant<br>Color: Red, blue, green, yellow, black<br>Texture: Smooth, rough, soft, hard, fluffy<br>Shape: Round, square, triangular, oval, rectangular<br>Mood - Happy, sad, angry, joyful, serene, calm, excited, curious,                                                                                                                                                                                                                                |
| <b>Define Placement and Interaction</b> | <b>Placement</b><br>Above, below, next to, beside, in front of, behind, on, under, near, far<br>Direction: Towards, away from, facing, leaning against, pointing at<br>Position: Slightly, directly, partially, completely etc<br><b>Interaction</b><br>Relational: Interacting with, looking at, playing with, talking to, connected to,, holding hands with<br>Action: Running alongside, jumping over, sitting on, standing near<br>Emotional: Enjoying, observing, contemplating etc |

70

Example of **ADD framework** below:

**Scenario: A young woman sitting on a park bench reading a book**

|                                                                                                                                     |                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Add Subjects / Objects</b><br>Introduce new characters, animals, or objects.                                                     | <u>Add</u> a baby panda near the woman                                                                                                                |
| <b>Describe Details</b><br>Specify appearance, features, or actions of added elements.                                              | The baby panda is eating a bamboo shoot and wears a straw hat. The woman is asian, black framed glasses, short black hair, white blouse, denim jeans. |
| <b>Define Placement and Interaction</b><br>Position new elements within the scene and describe interactions with existing subjects. | The baby panda is resting beside the woman on the bench, both of them are in a Singapore park.                                                        |

**Use the Prompt Building Pyramid (SCENE+ DARTS+ ADD)**

**Choose 1 of the following prompts and generate the image in Nano Banana:**

- A quiet beach with gentle waves and colourful umbrellas
- An office meeting room with a presentation screen and chairs
- A kitchen with a table and cooking equipment
- A desert surrounded by sand dunes and sunset

- A school classroom with desks, a whiteboard and large windows

Refine the prompts using the template below

|                                                                                                                                     |                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Add Subjects / Objects</b><br>Introduce new characters, animals, or objects.                                                     | Add a friendly teacher and several cheerful students, with colorful school supplies and small potted plants.                                                                                                     |
| <b>Describe Details</b><br>Specify appearance, features, or actions of added elements.                                              | The teacher is smiling warmly and wearing a simple, neat outfit. The students look happy and energetic, sitting at their desks with colorful books, pencils, and school bags.                                    |
| <b>Define Placement and Interaction</b><br>Position new elements within the scene and describe interactions with existing subjects. | The teacher is standing near the whiteboard, while the students are sitting at their desks facing the teacher and listening attentively. Some students are raising their hands and interacting with the teacher. |

## **Learning Activity 4 - Digital Mood Board Creation**

**Choose 1 of the following themes:**

- Interior Design Concept for an HDB Flat (Modern, Scandinavian, Smart home)
- Interior Design for Retail Shop (Fashion, Hair Salon, Sports)
- Product Design Concept for Headphones (Gaming, Premium, Eco-friendly)
- Product Design Concept for Backpack (Travel, School, Hiking)

**Create 4 images with Nano Banana based on your chosen theme.**

**Combine these 4 images into a single digital mood board as a collage of 4 images.**

**Share your mood board with the class.**



## Learning Activity 5 - Rewriting Prompts to Reduce Bias with FAIR

- Identify the biases in the images generated by AI Tools in the following slides.
- Rewrite the prompts with FAIR.
- Generate the images again with the FAIR prompt and compare the results.

### Rewriting Prompts to Reduce Bias with FAIR

Original prompt:

Create an image of people in office

Rewrite prompt:

create an image of a diverse group of people, both males and females, with different ethnicities and ages (30-60) working in an office.



### Rewriting Prompts to Reduce Bias with FAIR

Original prompt:

Create an image of a nurse taking care of a patient.

Rewrite prompt:

create an image of a diverse group of nurses, both males and females, with different ethnicities and ages (30-60) working in an hospital.



### Rewriting Prompts to Reduce Bias with FAIR

Original prompt:

Create an image of a group of friends using AI tools

Rewrite prompt:

create an image of a diverse group of friends, both males and females, with different ethnicities and ages (30-60) working in an office.



## Learning Activity 6 - Natural Language Processing



This prompt was used to generate the image on the following slide:

*"A happy group of friends enjoying their meals at the Singapore hawker center, everyone smiling and their hands waving at the camera, ultra-realistic photo."*

Study the image on the next slide carefully and identify any issues you spot

- Look closely at the hands, fingers, arms, and faces.
- Circle or note anything that looks strange, distorted, or unrealistic.

**Rewrite the prompt below to fix the issues** (i.e. distorted hands, unnatural proportions)

*"A happy diverse group of 6 friends, both males and females, with different ethnicities and ages (30-50) enjoying their meals at the Singapore hawker center, everyone smiling and their hands waving at the camera, each person has one head, two arms, five fingers on each hand clearly visible, natural proportions, ultra-realistic photo. 8k, 16:9."*



## Learning Activity 7 – STORY FRAMEWORK - Image-to-Video with Google Labs – Flow



### Inspiration Bank

|                              |                                                                                                                                                                                                                                                                             |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Subject &amp; Setting</b> | People - child, teen, parent, teacher, hero, elder<br>Creatures/objects - dog, cat, koi, dragon, drone, vintage camera<br>Places - classroom, café, market street, rooftop, beach, hospital<br>Time/conditions - dawn, golden hour, night, rainy                            |
| <b>Theme / Tone</b>          | Hopeful, joyful, calm, romantic, playful, mysterious, tense, somber, heroic, inspirational, comedic, gritty, whimsical                                                                                                                                                      |
| <b>Obstacles / Action</b>    | Obstacles - deadline, broken device, locked door, file, traffic jam, power cut etc<br>Actions - searching, negotiating, rescuing, escaping, hiding, competing, teaching, comforting, celebrating                                                                            |
| <b>Recording Angle</b>       | Camera Angles: Eye level, low angle, high angle, dutch angle, first-person point of view<br>Shot Types: Extreme close-up, close-up, medium shot, full-body shot, wide shot, aerial shot<br>Camera Movement: Pan left / right, Dolly in / out, Tilt up / down, Tracking shot |
| <b>Yield Creativity</b>      | Style - anime, watercolor, claymation, pixel art<br>Twist - time loop, hidden message, tiny-to-giant scale, dream sequence<br>Motifs - cherry blossoms, neon signs, lanterns, jellyfish glow, origami shapes                                                                |

- Based on your image generated from the SCENE + DARTS + ADD prompt, animate it in Flow
- Use the template to fill in your STORY
- Follow instructions in the next slide to animate your image using Flow
- Share your creation with the rest of the class

### Example of STORY Framework in Google FLOW

|                                                                                |                                                                                                                                  |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Subject &amp; Setting</b><br>Define the main character(s) and environment   | A young office worker carrying a laptop bag at a busy Singapore bus stop during heavy rain                                       |
| <b>Theme / Tone</b><br>Decide the mood or emotional tone                       | Urgent, slightly comedic, relatable everyday chaos                                                                               |
| <b>Obstacles / Action</b><br>What is happening?<br>What's the story?           | She sees her bus arriving, struggles with an umbrella, then runs toward it while trying not to drop her bag                      |
| <b>Recording Angle</b><br>From what camera angle should the scene be recorded? | High-angle wide shot with a slight dolly in, showing the rainy bus stop, arriving bus, and her chaotic run more clearly          |
| <b>Yield Creativity</b><br>Combine elements creatively for originality         | Use a dream-sequence twist where glowing neon signs and origami shapes appear around her as she runs, realistic cinematic style. |

Draft your prompt with the STORY Methodology below

|                                                                                |  |
|--------------------------------------------------------------------------------|--|
| <b>Subject &amp; Setting</b><br>Define the main character(s) and environment   |  |
| <b>Theme / Tone</b><br>Decide the mood or emotional tone                       |  |
| <b>Obstacles / Action</b><br>What is happening?<br>What's the story?           |  |
| <b>Recording Angle</b><br>From what camera angle should the scene be recorded? |  |
| <b>Yield Creativity</b><br>Combine elements creatively for originality         |  |

## Learning Activity 8 – SOUND FRAMEWORK - Text-to-Music with Suno



### Inspiration Bank

|                                   |                                                                                                                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Style / Genre</b>              | Pop, R&B, hip hop, drum & bass rock, country, jazz, blues, funk, soul, K-pop, classical, orchestral                                                                                                                                         |
| <b>Overall Mood / Emotion</b>     | Happy, upbeat, inspiring, hopeful, triumphant, calm, romantic, warm, cozy                                                                                                                                                                   |
| <b>Use of Instruments</b>         | Piano, electric piano, electric guitar, bass guitar, strings (violin/viola/cello), brass (trumpet/trombone), woodwinds (flute/clarinet)                                                                                                     |
| <b>Narrative Tempo / Rhythm</b>   | Tempo (BPM): slow 60–80, mid 90–110, pop 110–128, dance 120–130, fast 140+<br>Motion words: gentle rise, steady pulse, driving beat, dramatic build                                                                                         |
| <b>Details on Vocals / Lyrics</b> | Vocal presence: lead vocal (male/female/child/choir)<br>Language/tone: English, Mandarin, Malay, Tamil<br>Tone: warm, corporate, friendly, playful, inspirational<br>Themes: teamwork, resilience, gratitude, celebration, motivation, love |

- Choose 1 of the following genres and fill in the template for the SOUND framework
  - Ballad
  - Rock & Roll
  - Hip Hop
  - R&B
  - Pop

- Follow the instructions in the next slides to create your song on Suno

### Example of SOUND Framework in Suno

|                                                                                                                                               |                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Style / Genre</b><br>What kind of music?<br>(pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.)                    | Modern pop with light R&B and electronic influences                                                                             |
| <b>Overall Mood / Emotion</b><br>What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious, energetic)        | Upbeat, feel-good, youthful and energetic                                                                                       |
| <b>Use of Instruments</b><br>Which instruments or sounds should be included? (piano, guitar, violin, drums, synths, choir, bass, flute, etc.) | Synths, punchy drums, bass, light piano and electronic effects                                                                  |
| <b>Narrative Tempo / Rhythm</b><br>How fast/slow should it be? (slow tempo, upbeat rhythm, dramatic buildup, steady beat, etc.)               | Mid-to-upbeat tempo with a catchy groove and strong chorus                                                                      |
| <b>Details on Vocals / Lyrics</b><br>Do you want lyrics or just instrumental? If lyrics, what theme?                                          | Male or female vocal, simple catchy lyrics about food, city life, late-night outings and enjoying everyday moments in Singapore |

### Draft your prompt with the SOUND Methodology below

|                                                                                                                                               |                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Style / Genre</b><br>What kind of music?<br>(pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.)                    | Modern R&B pop with funky grooves, playful hip-hop influences and light electronic elements.                                                                                           |
| <b>Overall Mood / Emotion</b><br>What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious, energetic)        | Funny, playful, cheeky, confident, energetic and feel-good.                                                                                                                            |
| <b>Use of Instruments</b><br>Which instruments or sounds should be included? (piano, guitar, violin, drums, synths, choir, bass, flute, etc.) | Smooth bass, groovy drums, electric piano, funky guitar, soft synths, hand claps and playful sound effects.                                                                            |
| <b>Narrative Tempo / Rhythm</b><br>How fast/slow should it be? (slow tempo, upbeat rhythm, dramatic buildup, steady beat, etc.)               | Mid-tempo with a bouncy R&B groove, catchy rhythm, playful vocal pauses and an extremely memorable chorus.                                                                             |
| <b>Details on Vocals / Lyrics</b><br>Do you want lyrics or just instrumental? If lyrics, what theme?                                          | Playful female vocals with funny and catchy lyrics about food cravings, being hungry, bubble tea, shopping, going out at night, lazy weekends and silly everyday moments in Singapore. |



## Learning Activity 9 - Refining CLEAR Prompts

### Rewritten Prompt Below:

1. Create photorealistic image of a Indonesian farmer working under the hot sun in a paddy rice field with tattered clothes and a sad face.
2. Make a hyper-realistic portrait of a group of young teenage girls in bikini playing volleyball at the East Coast beach.
3. An image of Black Pink members arguing with each other behind the concert backstage.

### Example of CLEAR framework to check for Ethical Prompting

Scenario: Create a photorealistic image of Taylor Swift working as a cashier at a Singapore hawker centre during lunchtime.

|                                        | Description                                                                                                | Type Yes / No in the boxes below |
|----------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------|
| Check originality                      | Is the image idea an original creation?                                                                    | Yes                              |
| Language sensitivity                   | Does the prompt treat people fairly, without stereotypes about race, gender, age, or culture?              | No                               |
| Ethical references                     | Does the prompt copy an existing artwork, style, or photo without giving credit?                           | No                               |
| Appropriate themes                     | Could this image idea make people uncomfortable, or include discrimination, hate, harm, or sexual content? | Yes                              |
| Respect boundaries                     | Does the prompt remove the real people's names or faces, or single out a race or group?                    | No                               |
| Rewritten Prompt using CLEAR framework | <i>Create a photorealistic image of a cashier at a Singapore hawker centre during lunchtime.</i>           |                                  |



Use the template in the next step to refine the prompt ethically using the CLEAR framework

|                                               | Description                                                                                                                                                                                                                                                                                            |                                |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Check originality                             | Is the image idea an original creation?                                                                                                                                                                                                                                                                | yes (own idea/creation)        |
| Language sensitivity                          | Does the prompt treat people fairly, without stereotypes about race, gender, age, or culture?                                                                                                                                                                                                          | no (mis-represent the leaders) |
| Ethical references                            | Does the prompt copy an existing artwork, style, or photo without giving credit?                                                                                                                                                                                                                       | no (no source/evidence)        |
| Appropriate themes                            | Could this image idea make people uncomfortable, or include discrimination, hate, harm, or sexual content?                                                                                                                                                                                             | yes (false events)             |
| Respect boundaries                            | Does the prompt remove the real people's names or faces, or single out a race or group?                                                                                                                                                                                                                | no (real names not remove)     |
| <b>Rewritten Prompt using CLEAR framework</b> | <p><i>created an image of prime minister lawrence wong shaking hands with donald trump at a singapore tech summit, both of them are looking tense and a motionless</i></p> <p><i>create an image of two world leaders / politicians (do not resemble any public figure) at a conferenceN, BOTH</i></p> |                                |