# AI Content Creation For Productivity

## IMPORTANT LOGIN INFORMATION FOR THE CLASS:

**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:**

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

**Suno:**

- **Go to browser**: Type in https://suno.com/ in the address bar and press Enter.
- **Log In**: Select Continue with Google
- 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 |

SKILLS DEVELOPMENT ACADEMY

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

**SCENE – Subject, Context, Emotions, Narrative, Effect**

**Example of SCENE framework below**

**Scenario:** Photorealistic image of a barista at work

| | |
|---|---|
| **Subject**<br>Clearly describing who or what the main focus of your image is. | An asian barista in his 30s at work |
| **Context**<br>Describe the setting and environment where your subject is | In a modern cafe |
| **Emotion**<br>Define the mood and atmosphere you want the image to convey | Feeling focused, calm and cheerful |
| **Narrative**<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 |
| **Effect**<br>Portrait, Travel, Street, 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**

| | |
|---|---|
| **Subject**<br>Clearly describing who or what the main focus of your image is. | create an image of asian adult in his 40s |
| **Context**<br>Describe the setting and environment where your subject is | travelling at rome in france in the famous place |
| **Emotion**<br>Define the mood and atmosphere you want the image to convey | feeling focus, happy and enjoyable and calm |
| **Narrative**<br>Explain what is happening in the scene or what the subject is doing | with his asian mother and group of best friends around six |
| **Effect**<br>Portrait, Travel, Street, Choose the visual style or final look of the image | portrait photography style, hyper real, 8k, 16:9 |

## Learning Activity 2 - Image Generation with DARTS

SKILLS DEVELOPMENT ACADEMY

### Inspiration Bank

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

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

**Example of DARTS framework below**

**Scenario:** Photorealistic image of a cyclist riding along the pavement beside a city street at night

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

**Draft your prompt with the DARTS framework below**

**Choose <u>ONE</u> of the following prompts and generate the image in Nano Banana:**

- A family walking by Marina Bay Sands
- A child flying a kite at East Coast Park during sunset
- A street food vendor cooking at a busy night market
- A family walking by Marina Bay Sands

| | |
|---|---|
| **Depth of Field**<br>Shallow vs deep depth of field | A family walking by Marina Bay Sands, deep depth |
| **Angle**<br>Camera point of view: eye-level, low, high, aerial | eye level |
| **Range of Exposure**<br>Balance exposure / Overexposed | balanced exposure |
| **Type of Shot**<br>Close-up, mid-shot, wide shot | wide shot |
| **Source of Light**<br>Lighting style: natural, moody, soft, dramatic | natural |

## Learning Activity 3 - Putting it All Together

### Inspiration Bank ( ADD FRAMEWORK )

| | |
|---|---|
| Add Subjects / Objects | 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 |
| Describe Details | 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, |
| Define Placement and Interaction | **Placement**<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>**Interaction**<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

**ADD – Add subjects/objects, Describe details, Define placement and interaction**

**Example of ADD framework below:**

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

| | |
|---|---|
| **Add Subjects / Objects**<br>Introduce new characters, animals, or objects. | Add a baby panda near the woman |
| **Describe Details**<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. |
| **Define Placement and Interaction**<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 ADD framework:**

**Choose ONE 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

| | |
|---|---|
| **Add Subjects / Objects**<br>Introduce new characters, animals, or objects. | add a camel of desert surrounded by sand dunes and sunset |
| **Describe Details**<br>Specify appearance, features, or actions of added elements. | a asian man sitting on the camel |
| **Define Placement and Interaction**<br>Position new elements within the scene and describe interactions with existing subjects. | camel in the middle of the desert |

## Learning Activity 4 - Digital Mood Board Creation

Example of **Moodboard Creation** below:

| | |
|---|---|
| **Theme** | Interior Design Concept for Modern Home Study Room |
| **Style** | Modern minimalist |
| **Lighting** | Soft natural daylight with warm desk lighting |
| **Colour & Material** | Light wood, white, beige, glass |
| **Feeling** | Calm, focused, organised |

**Use Final Prompt:**

*Create a digital moodboard of at least 4 images for a **modern home study room** in a **minimalist style,** with **soft natural daylight and warm desk lighting**, using **light wood, white, beige and glass materials**, showing a **calm, focused and organised feeling***

**Create a moodboard with Nano Banana based on your chosen theme.**

**Choose <u>ONE</u> 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}

**Use the following prompt to create your moodboard:**

*Create a digital mood board of at least 4 images for [**theme**], in [**style**], with [**lighting**], using [**colour/material**], showing a [**feeling**].*

**Inspiration bank** (Choose 1–2 words from each category)

***Style:*** *minimalist, modern, contemporary, Scandinavian, Japandi, industrial, luxury, retro, vintage, futuristic, rustic, sporty, playful, elegant, premium, eco-friendly, tech-inspired, urban, classic*

***Lighting:*** *warm, cool, soft, bright, natural, diffused, ambient, moody, dramatic, neon, backlit, studio lighting, golden-hour, high-contrast, low-light*

***Colour / Material:*** *wood, metal, glass, leather, fabric, canvas, plastic, recycled material, aluminium, stainless steel, rubber, stone, concrete, marble, rattan, pastel, neon, neutral, earthy, monochrome, bold, metallic, matte, glossy*

***Feeling:*** *calm, happy, bold, relaxed, cosy, dreamy, energetic, premium, sophisticated, playful, adventurous, sporty, futuristic, welcoming, clean, youthful, professional, luxurious, natural, creative*

**Share your mood board with the class.**
*Create a digital mood board of at least 4 images for backpack hiking], in sporty, elegant, with natural, using leather, matte glossy showing a sporty, youthful*

Create your **Moodboard** using the template below:

| | |
|---|---|
| **Theme** | Product design concept for backpack {Hiking} |
| **Style** | sporty, elegant |
| **Lighting** | natural |
| **Colour & Material** | leather, matte glossy |
| **Feeling** | sporty, youthful |

**Use Final Prompt:**

## 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:<br>Create an image of people in office<br><br>Rewrite prompt: | |

| Rewriting Prompts to Reduce Bias with FAIR | |
|---|---|
| Original prompt:<br>Create an image of a nurse taking care of a patient.<br><br>Rewrite prompt:<br>create an image of a diverse group of 2 nurses and 1 doctor, different ethnicities and ages, taking care of a patient in a Singapore hosiptal | |

| Rewriting Prompts to Reduce Bias with FAIR | |
|---|---|
| Original prompt:<br>Create an image of a group of friends using AI tools<br><br>Rewrite prompt:<br>Create an image of a diverse group of people, both males n females, with different ethnicities and ages 30-50 working in the 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, males and females, different ethnicities and ages 30-60 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, natural light, ultra-realistic photo."* |

SKILLS DEVELOPMENT ACADEMY

# Inspiration Bank

| | |
|---|---|
| **S**ubject & Setting | 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 |
| **T**heme / Tone | Hopeful, joyful, calm, romantic, playful, mysterious, tense, somber, heroic,inspirational, comedic, gritty, whimsical |
| **O**bstacles / Action | Obstacles - deadline, broken device, locked door, file, traffic jam, power cut etc<br>Actions - searching, negotiating, rescuing, escaping, hiding, competing, teaching, comforting, celebrating |
| **R**ecording Angle | 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 |
| **Y**ield Creativity | 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**

**Scenario:** A boy finds a lost dog at the beach

| | |
|---|---|
| **Subject & Setting**<br>Define the main character(s) and environment | A 3D cartoon of a young boy walking alone at a beach during golden hour |
| **Theme / Tone**<br>Decide the mood or emotional tone | Hopeful, warm and emotional |
| **Obstacles / Action**<br>What is happening? What's the story? | He notices a lost dog near the water, approaches slowly, then comforts it. He speaks in english: "Hey there little buddy, are you lost?" |
| **Recording Angle**<br>From what camera angle should the scene be recorded? | Start with a wide eye-level shot, then move into a medium tracking shot as he walks toward the dog<br><br>He then ends off by saying : "Come, let's bring you back." |
| **Yield Creativity**<br>Combine elements creatively for originality | Add a magical twist at the end: glowing sparkles and heart shaped elements slowly appear around them as the boy hugs the dog. |

**Draft your prompt with the STORY framework below**

| | |
|---|---|
| **Subject & Setting**<br>Define the main character(s) and environment | A 3D cartoon of a young girl walking along at a beach during golden hour |
| **Theme / Tone**<br>Decide the mood or emotional tone | hopeful, warm and emotion |
| **Obstacles / Action**<br>What is happening? What's the story? | She notices a lost dog near the water, approaches slowly, then comforts it. She speaks in english: "Hey there little buddy, are you lost?" |
| **Recording Angle**<br>From what camera angle should the scene be recorded? | Start with a wide eye-level shot, then move into a medium tracking shot as she walks toward the dog<br><br>She then ends off by saying : "Come, let's bring you back." |
| **Yield Creativity**<br>Combine elements creatively for originality | Add a magical twist at the end: glowing sparkles and heart shaped elements slowly appear around them as the Girl hugs the dog. |

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

SKILLS DEVELOPMENT ACADEMY

### Inspiration Bank

| | |
|---|---|
| Style / Genre | Pop, R&B, hip hop, drum & bass rock, country, jazz, blues, funk, soul, K-pop, classical, orchestral |
| Overall Mood / Emotion | Happy, upbeat, inspiring, hopeful, triumphant, calm, romantic, warm, cozy |
| Use of Instruments | Piano, electric piano, electric guitar, bass guitar ,strings (violin/viola/cello), brass (trumpet/trombone) ,woodwinds (flute/clarinet) |
| Narrative Tempo / Rhythm | 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 |
| Details on Vocals / Lyrics | 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 <u>ONE</u> 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**

| | |
|---|---|
| **Style / Genre**<br>What kind of music?<br>(pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.) | *pop, drum* |
| **Overall Mood / Emotion**<br>What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious,energetic) | *happy,* |
| **Use of Instruments**<br>Which instruments or sounds should be included? (piano, guitar, violin, drums, synths, choir, bass, flute, etc.) | *drum* |
| **Narrative Tempo / Rhythm**<br>How fast/slow should it be? (slow tempo, upbeat rhythm, dramatic buildup, steady beat, etc.) | *pop 110-128* |
| **Details on Vocals / Lyrics**<br>Do you want lyrics or just instrumental? If lyrics, what theme? | *Mandarin, playful, males* |

**Draft your prompt with the SOUND framework below**

| | |
|---|---|
| **Style / Genre**<br>What kind of music?<br>(pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.) | |
| **Overall Mood / Emotion**<br>What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious,energetic) | |
| **Use of Instruments**<br>Which instruments or sounds should be included? (piano, guitar, violin, drums, synths, choir, bass, flute, etc.) | |
| **Narrative Tempo / Rhythm**<br>How fast/slow should it be? (slow tempo, upbeat rhythm, dramatic buildup, steady beat, etc.) | |
| **Details on Vocals / Lyrics**<br>Do you want lyrics or just instrumental? If lyrics, what theme? | |

## 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.<br>2. Make a hyper-realistic portrait of a group of young teenage girls in bikini playing volleyball at the East Coast beach.<br>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** |
|---|---|---|
| **C**heck originality | Is the image idea an original creation? | Yes |
| **L**anguage sensitivity | Does the prompt treat people fairly, without stereotypes about race, gender, age, or culture? | No |
| **E**thical references | Does the prompt copy an existing artwork, style, or photo without giving credit? | No |
| **A**ppropriate themes | Could this image idea make people uncomfortable, or include discrimination, hate, harm, or sexual content? | Yes |
| **R**espect 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** | *Create a photorealistic image of a cashier at a Singapore hawker centre during lunchtime.* | |

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

**Scenario:** An image of Black Pink members arguing with each other behind the concert backstage.

| | **Description** | |
|---|---|---|
| **C**heck originality | Is the image idea an original creation? | yes |
| **L**anguage sensitivity | Does the prompt treat people fairly, without stereotypes about race, gender, age, or culture? | no |
| **E**thical references | Does the prompt copy an existing artwork, style, or photo without giving credit? | no |
| **A**ppropriate themes | Could this image idea make people uncomfortable, or include discrimination, hate, harm, or sexual content? | yes |
| **R**espect 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** | *an image of a group of artists or band members - do not resemble any public figures or artists arguing with each other behind the concert backstage* | |