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
- **S**elect 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



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

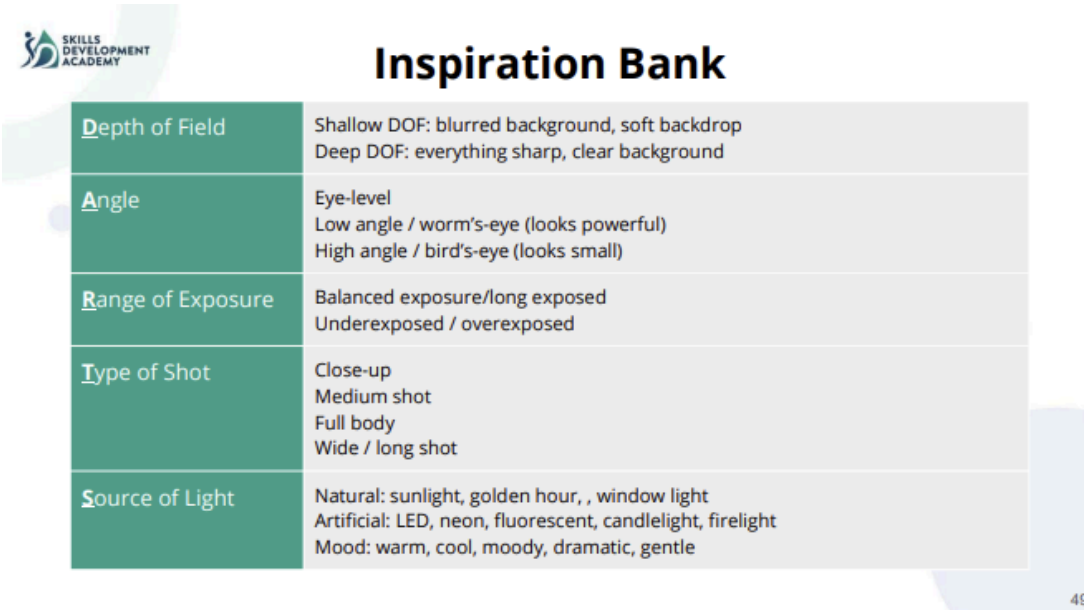
Scenario: Photorealistic image of a barista at work

Subject Clearly describing who or what the main focus of your image is.	An asian barista in his 30s at work
Context Describe the setting and environment where your subject is	In a modern cafe
Emotion Define the mood and atmosphere you want the image to convey	Feeling focused, calm and cheerful
Narrative 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 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 Clearly describing who or what the main focus of your image is.	A mid age asian mother, together with her two young girls age 13 and 7.
Context Describe the setting and environment where your subject is	In the morning at their kitchen counter
Emotion Define the mood and atmosphere you want the image to convey	A calm family breakfast time - chatting and starting the day
Narrative Explain what is happening in the scene or what the subject is doing	The mother is preparing and handing over the cereal box to the younger girl. while the elder one is sharing something
Effect 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



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

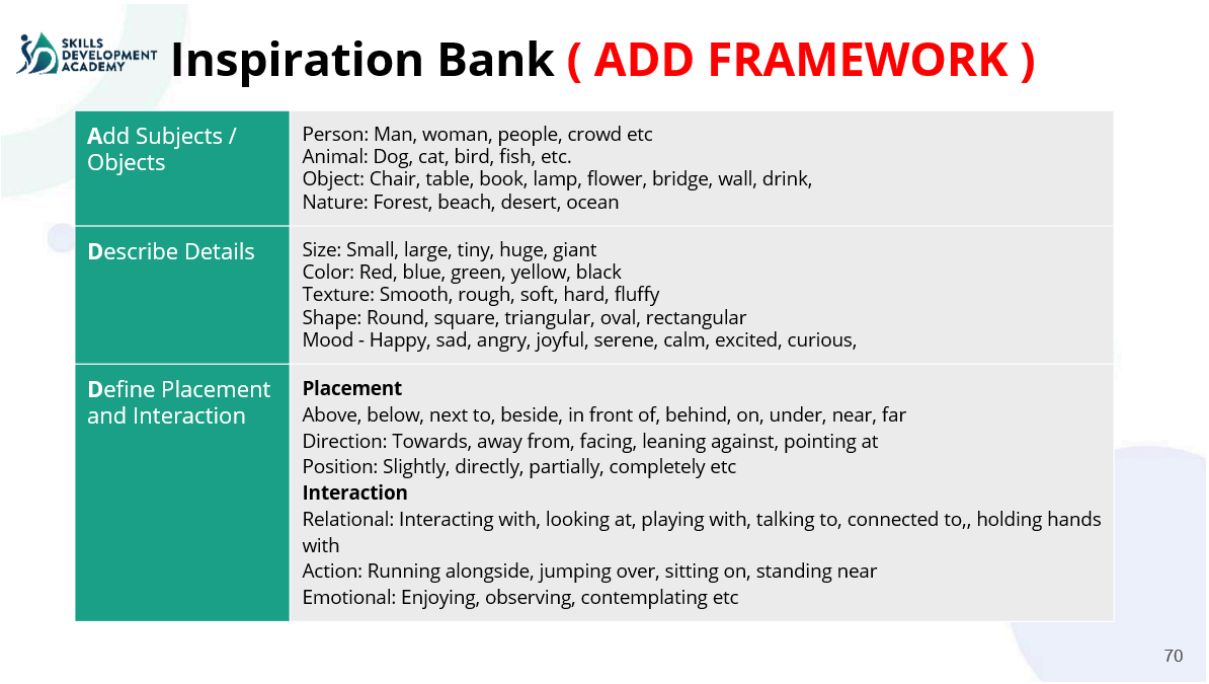
Draft your prompt with the DARTS framework below

Choose ONE 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

Depth of Field Shallow vs deep depth of field	deep focus, keep the child in focus
Angle Camera point of view: eye-level, low, high, aerial	eye level shot
Range of Exposure Balance exposure / Overexposed	Balance exposure
Type of Shot Close-up, mid-shot, wide shot	wide shot
Source of Light Lighting style: natural, moody, soft, dramatic	natural light, golden hour of the sunset. evening rays

Learning Activity 3 - Putting it All Together



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 Introduce new characters, animals, or objects.	Add a baby panda near the woman
Describe Details 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 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

A young lady holding on a cup of coffee while walking down the street.

Add a small puppy walking beside her
the puppy is black and white color with a red collar tag, big eyes. The woman is a blonde in her sports attire, long hair tied in a pony tail going for her morning walk with her dog.
The dog is walking on the left of the woman ann the coffee cup is in the woman's right hand, walking down the the west cost park of singapore

Refine the prompts using the template below

Add Subjects / Objects Introduce new characters, animals, or objects.	Add students sitting on the chair and a teacher standing infront of the class
Describe Details Specify appearance, features, or actions of added elements.	The student are facing the the whiteboard and the teacher is teaching in the front of the class- holding a book in her hand. student comprise of girls and boys wearing green and white uniform (top pe t-shirt and bottom green shorts). Teacher is wearing a floral blouse and brown pants with glasses.
Define Placement and Interaction Position new elements within the scene and describe interactions with existing subjects.	the children are to be seen sitting on the chair of the class room and facing towards to whiteboard and teacher is standing infront of the wideboard facing the stuednt

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 ONE 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 Moodboard** using the template below:

Theme	Interior Design Concept for Smart Home HDB Flat
Style	Modern minimalist, tech-inspired
Lighting	Studio lighting
Colour & Material	Light wood, white, beige, glass
Feeling	Calm, focused, organised

Use Final Prompt:

*Create a digital mood board of at least 4 images for smart home HDB flat, in modern minimalist, tech-inspired, with studio lighting, using **light wood, white, beige and glass materials**, showing a **calm, focused and organised feeling***

Cafe in Singapore

Create a **Digital Moodboard** using the template below:

Theme	Interior Design Concept for a Vintage Herritage Cafe in Singapore
Style	classic Vintage with Singapore Colonial Heritage Influence
Lighting	Soft natural daylight, warm ambient pendant lighting, vintage wall sconces
Colour & Material	Walnut wood, warm cream, beige, muted sage green, antique brass, rattan, marble and patterned heritage tiles
Feeling	Nostalgic, cosy, welcoming, relaxed and timeless

***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*

*Create a digital moodboard of at least 4 images for a **vintage heritage cafe in Singapore** in a **classic vintage style with Singapore colonial Heritage Influence,** with* Soft natural daylight, warm ambient pendant lighting, vintage wall sconces, Walnut wood, warm cream, beige, muted sage green, antique brass, rattan, marble and patterned heritage tiles, *showing a* Nostalgic, cosy, welcoming, relaxed and timeless ***feeling***

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 a diverse group of professional, both males and females, different ethnicities and ages (20-70) working in modern 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 groups of 2 nurses and a doctor, males and females, different ethnicities and ages taking care of a patient	

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 diverse group of friends, males and females, different ethnicities and age (30-70) using AI tools such as Chatgpt and Gemini	

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, different ethnicities and ages (30-60) enjoying their meals at the Singapore hawker centre, everyone smiling and their hands waving at the camera, each person has one head, two arms, and five fingers on each hand clearly visible, natural proportions, ultra-realistic photo, 8k,16:9

Inspiration Bank

Subject & Setting	People - child, teen, parent, teacher, hero, elder Creatures/objects - dog, cat, koi, dragon, drone, vintage camera Places - classroom, café, market street, rooftop, beach, hospital Time/conditions - dawn, golden hour, night, rainy
Theme / Tone	Hopeful, joyful, calm, romantic, playful, mysterious, tense, somber, heroic,inspirational, comedic, gritty, whimsical
Obstacles / Action	Obstacles - deadline, broken device, locked door, file, traffic jam, power cut etc Actions - searching, negotiating, rescuing, escaping, hiding, competing, teaching, comforting, celebrating
Recording Angle	Camera Angles: Eye level, low angle, high angle, dutch angle, first-person point of view Shot Types: Extreme close-up, close-up, medium shot, full-body shot, wide shot, aerial shot Camera Movement: Pan left / right, Dolly in / out, Tilt up / down, Tracking shot
Yield Creativity	Style - anime, watercolor, claymation, pixel art Twist - time loop, hidden message, tiny-to-giant scale, dream sequence 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 Define the main character(s) and environment	A 3D cartoon of a young boy walking alone at a beach during golden hour
Theme / Tone Decide the mood or emotional tone	Hopeful, warm and emotional
Obstacles / Action 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 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 He then ends off by saying : "Come, let's bring you back."
Yield Creativity 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 Define the main character(s) and environment	
Theme / Tone Decide the mood or emotional tone	
Obstacles / Action What is happening? What's the story?	
Recording Angle From what camera angle should the scene be recorded?	
Yield Creativity Combine elements creatively for originality	

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



- 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 What kind of music? (pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.)	Modern pop with light jazz instrumental
Overall Mood / Emotion What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious,energetic)	Calm and slow flow
Use of Instruments 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
Narrative Tempo / Rhythm How fast/slow should it be? (slow tempo, upbeat rhythm, dramatic buildup, steady beat, etc.)	bass guitar with chorus
Details on Vocals / Lyrics Do you want lyrics or just instrumental? If lyrics, what theme?	female vocal, simple catchy lyrics in english about enjoying everyday moments in Singapore

Draft your prompt with the SOUND framework below

Style / Genre What kind of music? (pop, classical, hip hop, jazz, EDM, lo-fi, cinematic, rock, ambient, etc.)	Modern pop with light R&B and electronic influences
Overall Mood / Emotion What feeling should the music create? (happy, sad, tense, romantic, inspiring, mysterious,energetic)	Upbeat, feel-good, youthful and energetic
Use of Instruments 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
Narrative Tempo / Rhythm 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
Details on Vocals / Lyrics Do you want lyrics or just instrumental? If lyrics, what theme?	Male or female vocal, simple catchy lyrics in english about food, city life, late-night outings and enjoying 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	*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	
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	*Create an image of a group of band members (do not resemble any public figures or celebrities) arguing backstage at a concert.*	