Become a
MATERIAL
GIRL

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WHAT WE WILL COVER TODAY

- UV mapping
  - Setup, Texture Paint
- Texturing
  - Shader and Texture Nodes

"THAT'S HOT" KEYS

UV UNWRAPPING

TAB: Switch between Object and Edit Mode

A: Select All

ALT/OPT + CLICK: Select Edge Loops

U: Open UV Mapping Menu

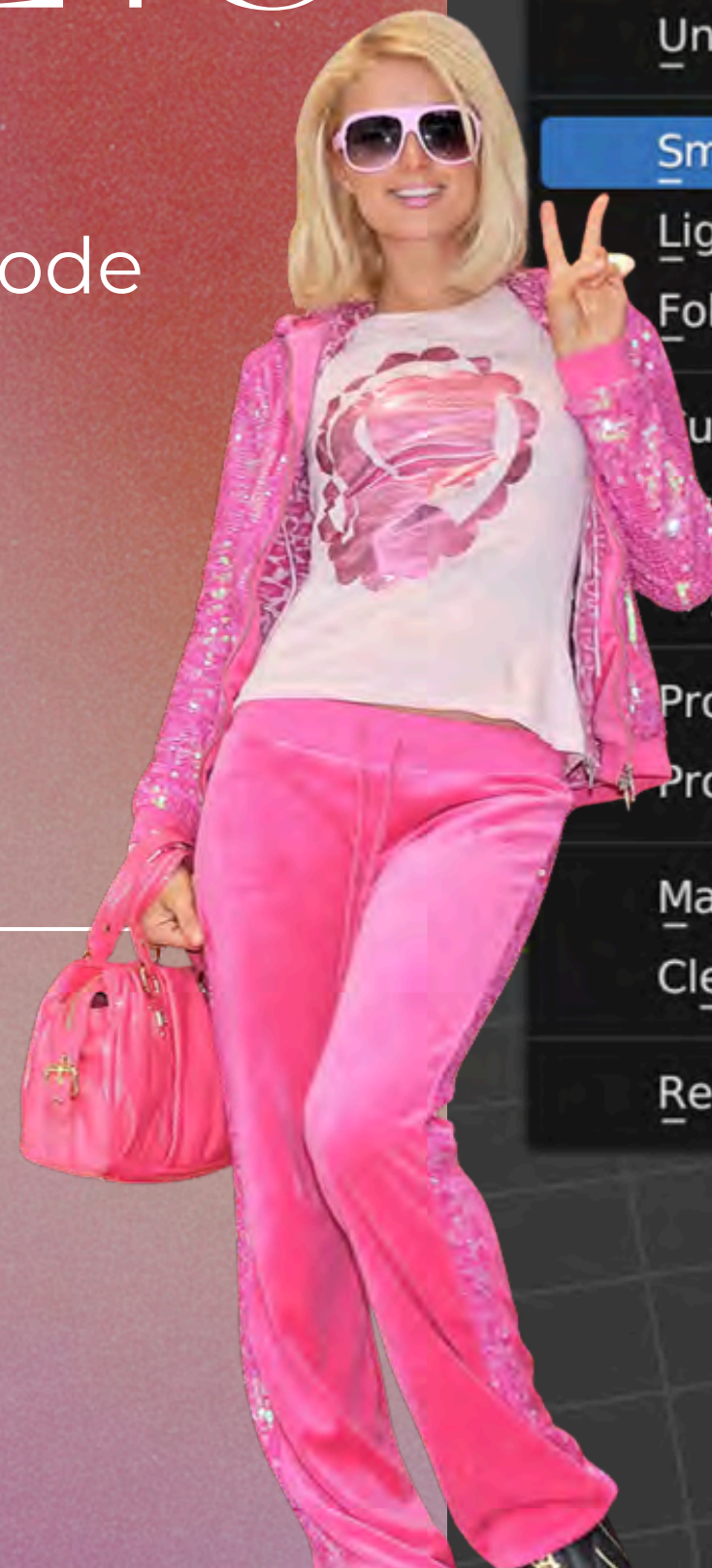CTRL/CMD + **E:** Open Edges Menu

G / R / S: Move / Rotate / Scale UV Map

TEXTURING

SHIFT + A: Add Nodes in Shader Editor

F: Change brush size (Paint Mode)

SHIFT + F: Change brush intensity

UV Mapping

Unwrap

Smart UV Project

Lightmap Pack

Follow Active Quads

ube Projection

linder Projection

here Projection

Project from View

Project from View (Bounds)

Mark Seam

Clear Seam

Reset

UV unwrapping is the process of taking a 3D surface and "unfolding" it into a flat 2D layout. This 2D version of the model lets you paint, texture, or edit the material as if it were a single flat image. By unwrapping the model, you gain full control over how textures are placed across the entire surface, ensuring details line up exactly where you want them.

ME & U(V)

CASSIE

Buy U(V) a Drank

UV UNWRAPPING WORKFLOW:

1. **Check your model**
   a. Remove doubles (M → By Distance)
   b. Recalculate your Normals to Face Outward (Alt + N)
2. **Mark Seams (How is the model going to open?)**
   a. Create seams where natural breaks exist
   b. Close loops around cylindrical shapes
   c. Use Edge menu hotkey (CTRL/CMD + E)
3. **Unwrap the Model**
   a. **U** → Unwrap
   b. **Smart UV Project:** Fast but unreliable
4. **Organize the UV Maps**
5. **Create/Edit your Textures**

(FRENCH) TIPS
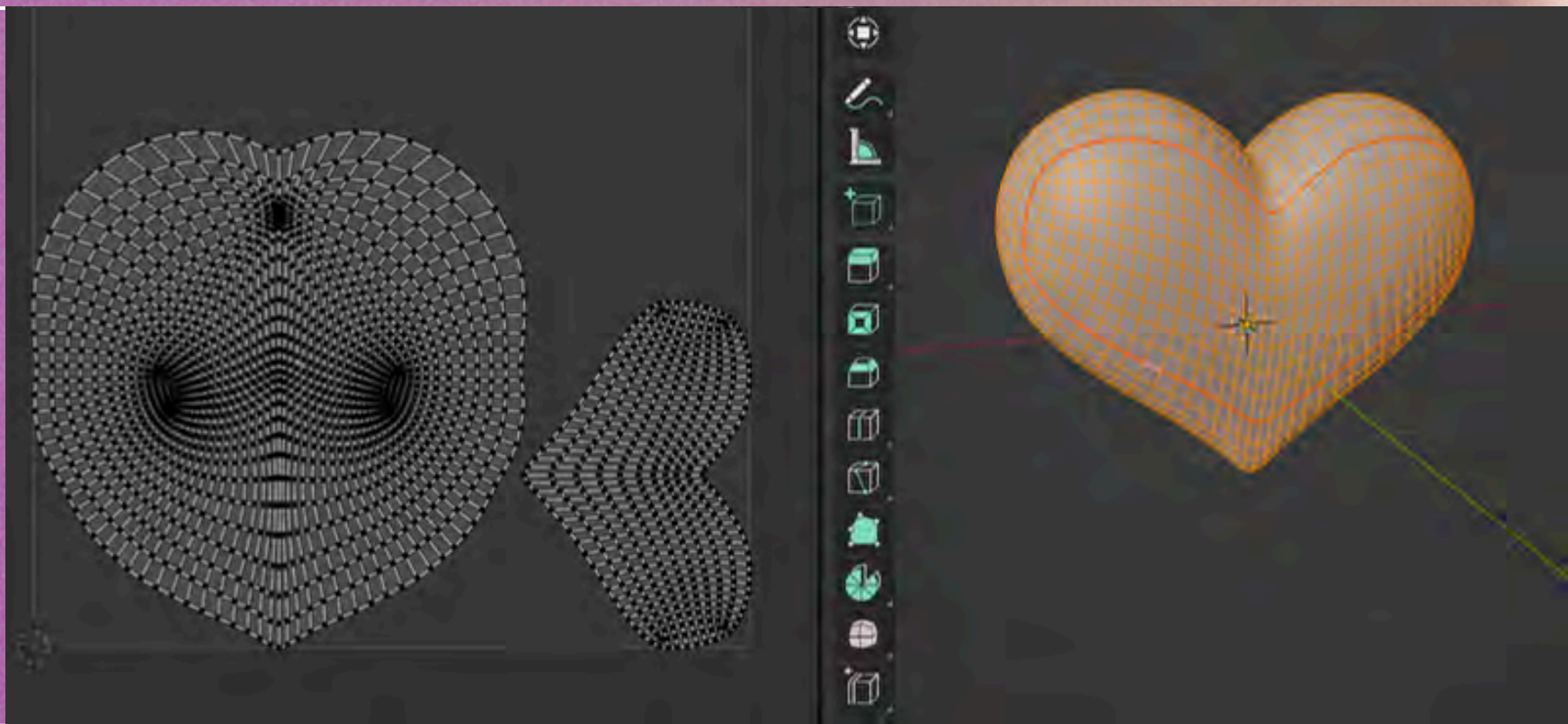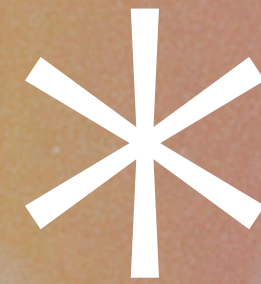
- Mark your seams where they are not visible

- Keep your UV Islands as large and continuous as possible

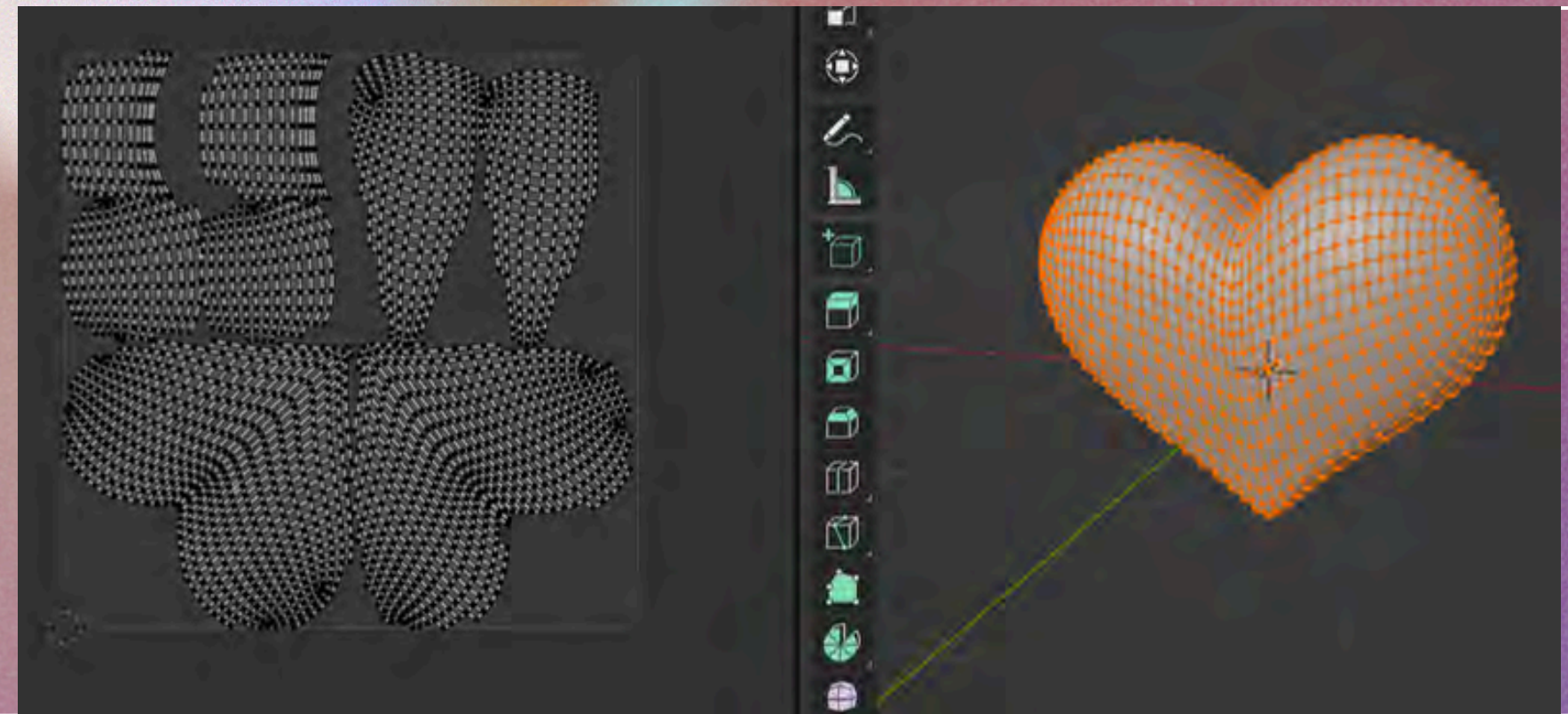- Take a lot of time prepping your material– it will make your life so much easier

UNWRAP VS. SMART UV PROJECT

Intentionality is KEY

*

Marking Seams

Smart UV Project

PAIN'T (NO OTHER MAN)

Texture Painting:
In the Shader Tab:
1. Add a new material
2. Add an image texture node → New

In the Texture Paint Tab:
1. Make sure your new Image texture is selected
2. Scale the UVs to best suit your needs
3. Paint, Smear, Fill, whatever you desire!

*Properly mapping your UVs is going to make your life so much easier while painting

IF U(V) SEEK AMY

If you already have a material tbut you want to modify it:

Once the material is Added:

1. Unwrap your project w/ seams (or Smart Unwrap)

In the UV Editing Tab:

1. Select whichever UV Islands you want to modify
2. Scale, Move, Rotate the UV islands!

*Properly mapping your UVs is going to make your life so much easier while painting

Texturing builds upon the steps outlined in UV unwrapping, so make sure to UV Unwrap your model prior to texturing. This allows you to have finer control over your textures

TEXT UR FREAK ON

Missy

MISSY "MISDEMEANOR" ELLIOTT

TEXT UR FREAK ON

TEXT-URING workflow

1. **Create a Material**
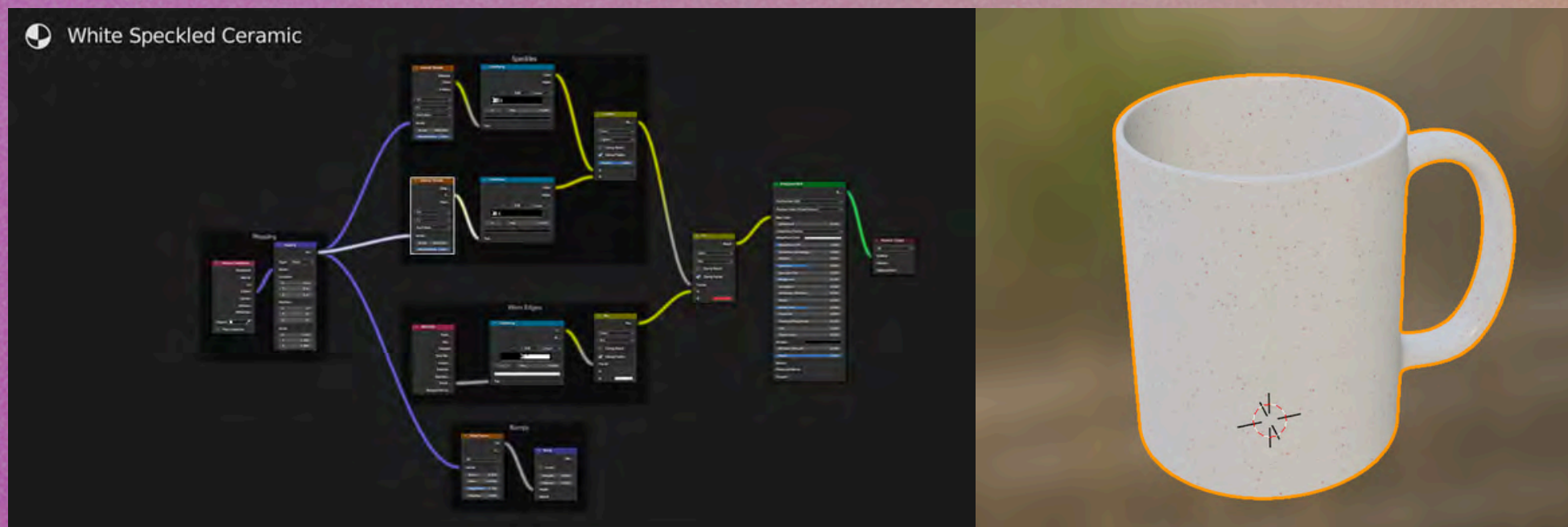   a. In shading tab, add Principled BSDF
2. **Add Texture Maps and Nodes**
3. **Tweak Material Properties**
   a. Roughness, Specularity, etc
4. **Check Scaling and Orientation**
5. **Preview in Render Preview and Continue to Adjust**

Normal vs Displacement Maps

- **Normal Map**
  - Fakes the lighting of bumps and dents
  - Connect to Normal Map Node → Normal Input of Principled BSDF

- **Displacement Map**
  - Uses a texture map to modify the actual geometry of the object in addition to its normals
  - Connect to Material Output → Displacement
  -

- **Use Cases**
  - Displacement map for larger surface forms (e.g., bumps, bricks, waves)
  - Normal maps for fine details (scratches, pores, textures).

Knodes to Know

- **Shader Nodes (Material Type)**
  - **Principled BSDF:** All-in-one shader
  - **Diffuse BSDF:** Simple diffuse color, no reflections
  - **Glossy BSDF:** Mirror-like reflection
  - **Glass BSDF:** Transparent, refractive surfaces
  - **Emission:** Makes the surface emit light
  - **Mix Shader:** Blend two shaders together
  - **Add Shader:** Adds light contributions from two shaders

Knodes to Know

- **Texture Nodes (Texturing)**
  - **Image Texture:** Load image maps
  - **Noise Texture:** Random noise, good for dirt, roughness variation
  - **Voronoi Texture:** Cells and patterns, good for scratches or tiling effects
  - **Wave Texture:** Bands, ripples, or procedural stripes
  - **Musgrave Texture:** Fractal noise for natural surfaces like stone or dirt
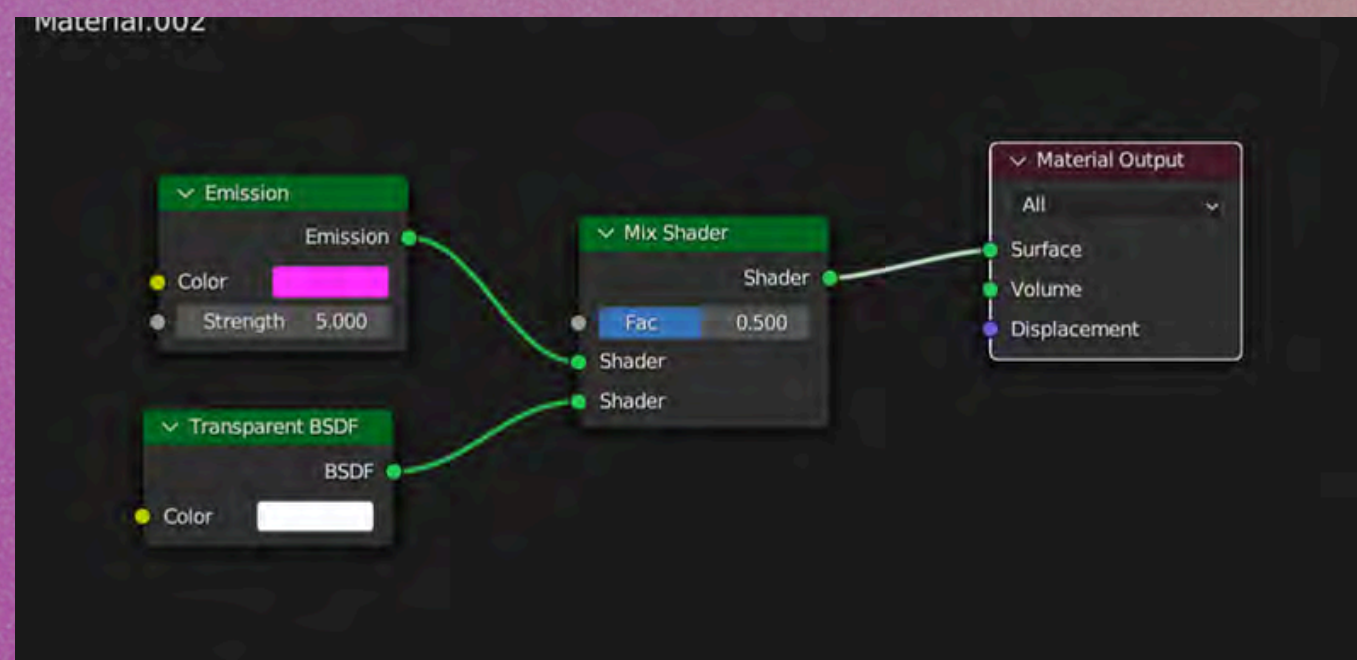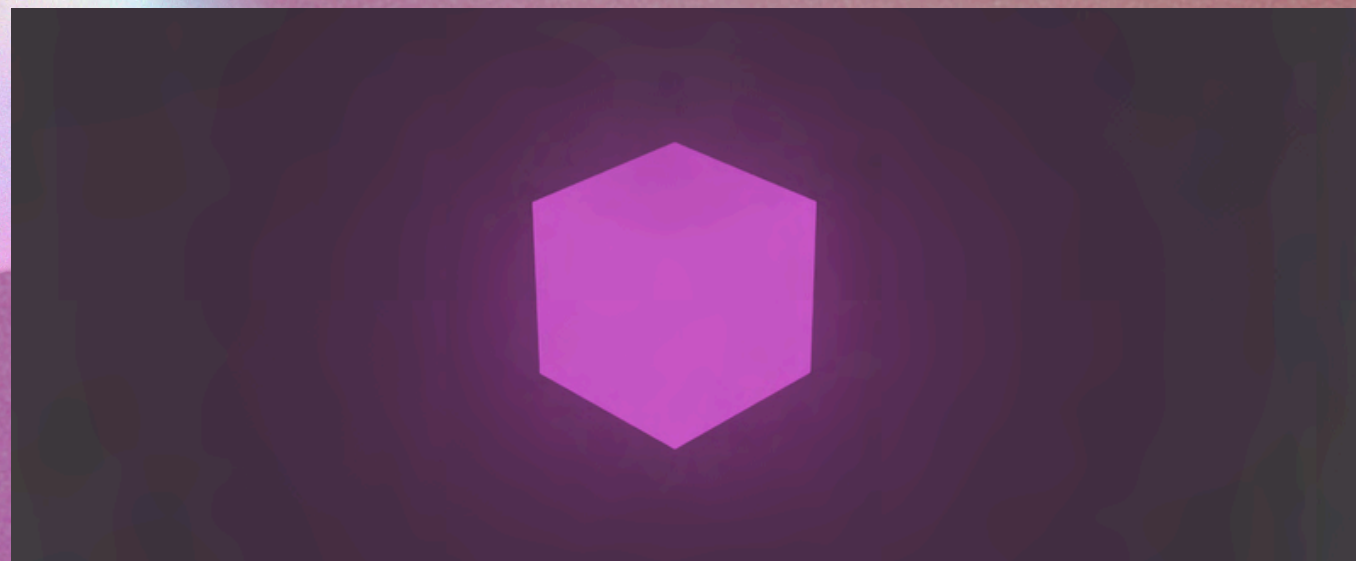 - **Texture Coordinate:** Positioning textures onto 3D object

Knodes to Know

- **Color and Math Nodes: (Modify Textures)**
  - **ColorRamp:** Remap color or grayscale for contrast or masks
  - **MixRGB:** Blend two colors or textures (Add, Multiply, Mix)
  - **RGB Curves:** Fine-tune color or grayscale values
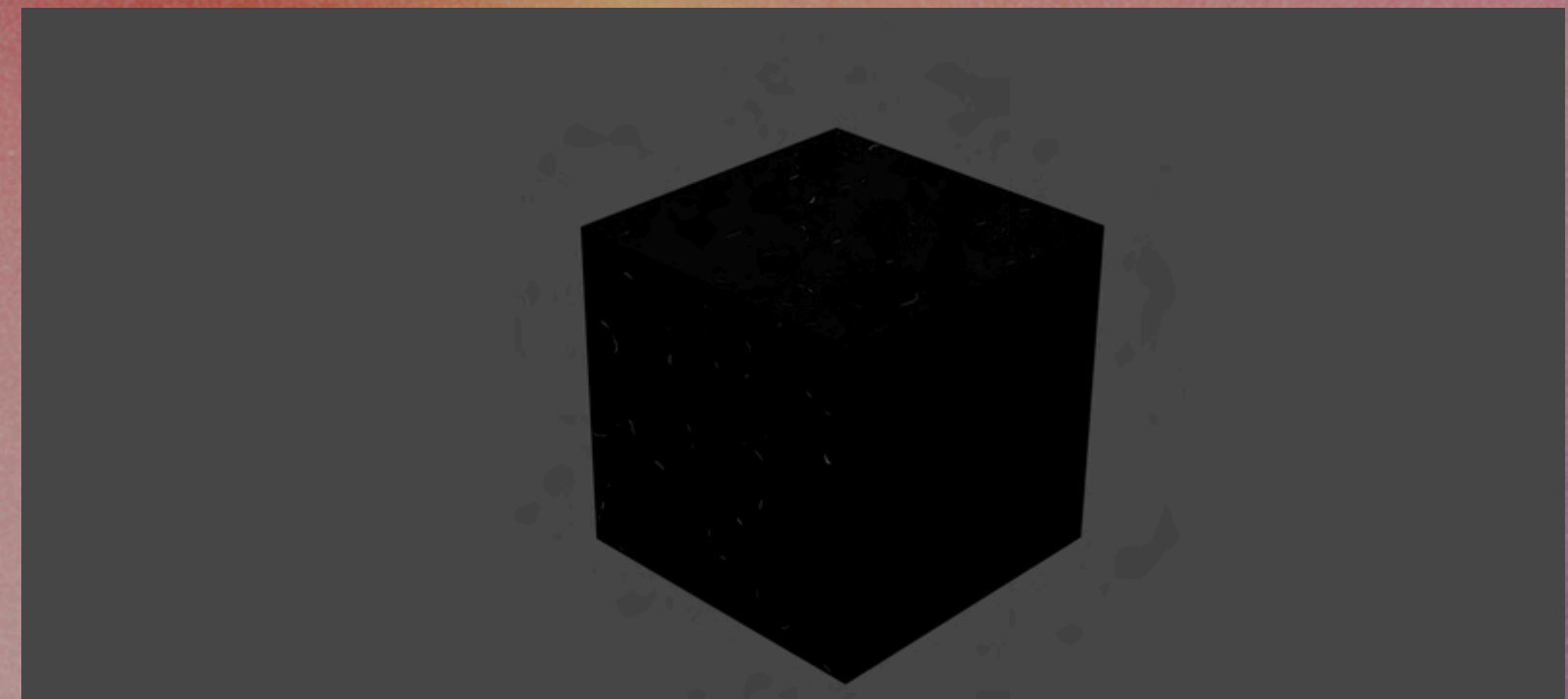 - **Math:** Add, subtract, multiply, or combine numeric values (used for masks)

Popular Combinations

- **Transparent BSDF + Emission Node + Volume Rendering**

- **Voronoi + Musgrave + Noise Texture + ColorRamp + Multiply (Mix Color)**
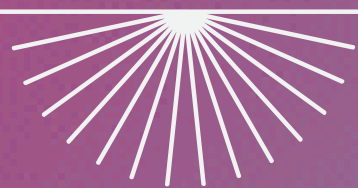
TIPS AND TRICKS

✦ **Plan Your UV Layout Early**

✦ **Keep UVs Proportional**

✦ **Use Multiple UV Maps or Texture Layers**

✦ **Use Noise to Introduce Subtle Surface Variation**

✦ **Leverage ColorRamps and Combine Multiple Textures**

BLENDERKIT

BlenderKit is a super useful, integrated add-on that can make importing assets into your Blender file super quick and easy!

Can import materials, models, HDRIs, etc

Find more details here:
https://www.blenderkit.com/

1   Don't have Blender yet?
    ⬇ Get Blender for free

2   Open Blender.
    Go to `Edit` → `Preferences` and, then open
    `Add-ons`.

3   Click on the `V` button in the top right corner,
    select `Install from Disk...` and find
    `blenderkit-v3.17.0.251008.zip` in your
    Downloads folder.

4   BlenderKit will appear in the add-ons list.
    Click on checkbox to enable BlenderKit.