

What do you dream about?

INVESTIGATE



XX



Attention, Sleep, & Dreaming



As a Young Psychologist, I will be able to...

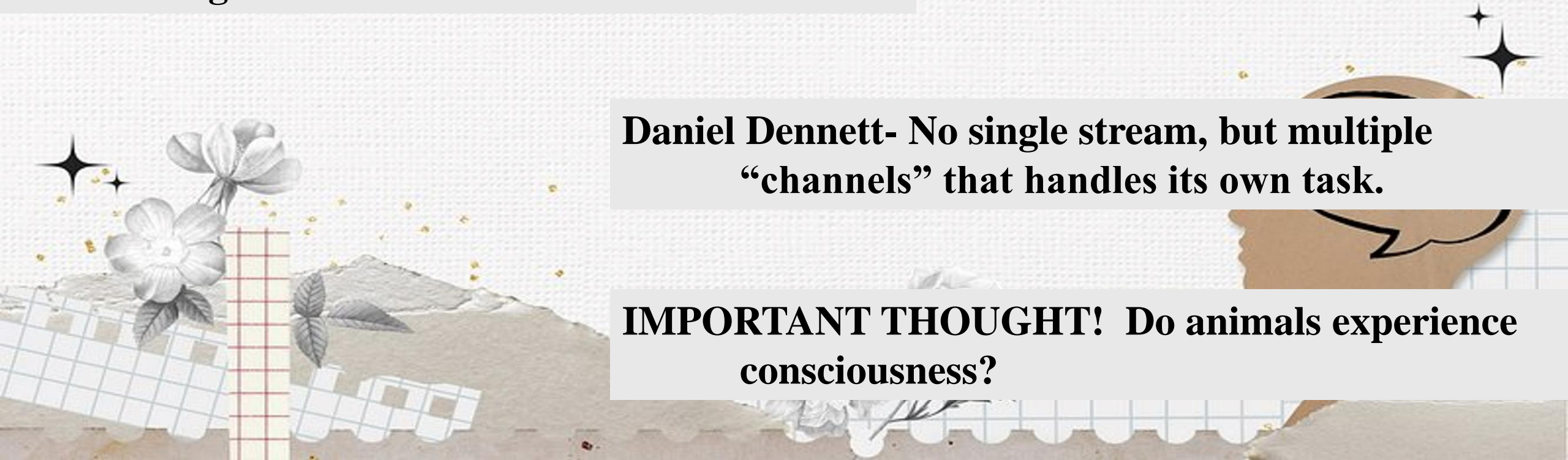
What is Consciousness?

Consciousness- A person's awareness of everything that is going around them at any given time.

William James- Theory of a stream of consciousness that has ideas, sensation, & thoughts flow into one another

Daniel Dennett- No single stream, but multiple “channels” that handles its own task.

IMPORTANT THOUGHT! Do animals experience consciousness?



Altered States! Not just a movie!

Waking Consciousness- Our thoughts, feelings, & sensations are clear & organized.

Altered State of Consciousness- There is a shift in the quality or pattern of our mental activity.

Sometimes this is **INCREASED** with a stimulant

You can also **DIVIDE** your consciousness between activities



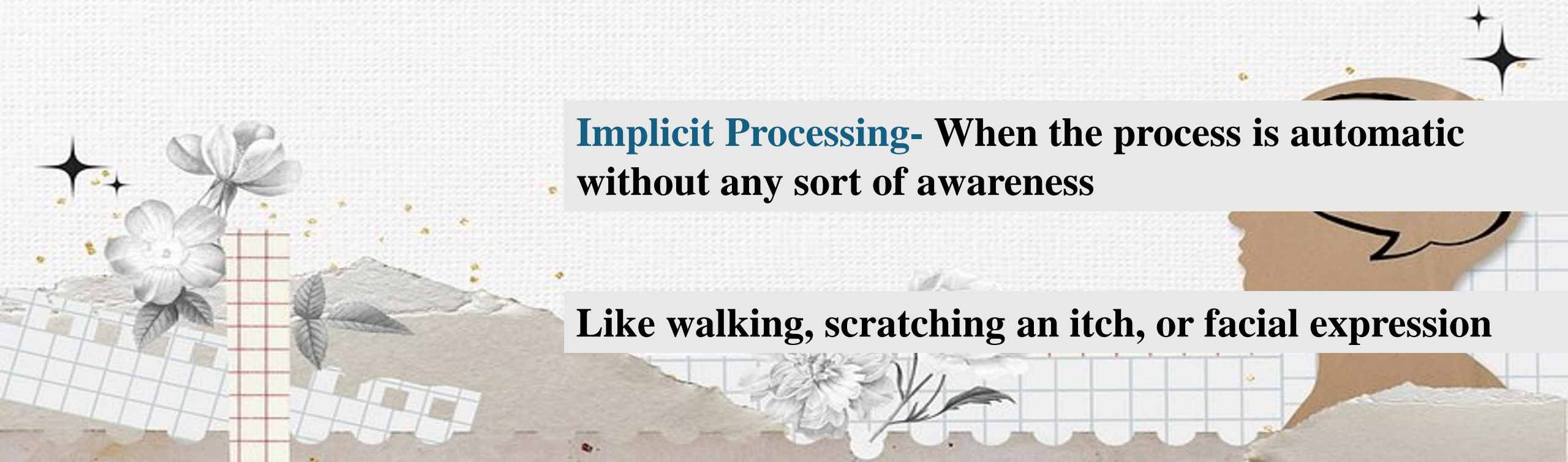
Implicit V Explicit

Explicit Processing- When you are fully aware of your thought process & task at hand

Like studying for a test or writing notes!

Implicit Processing- When the process is automatic without any sort of awareness

Like walking, scratching an itch, or facial expression



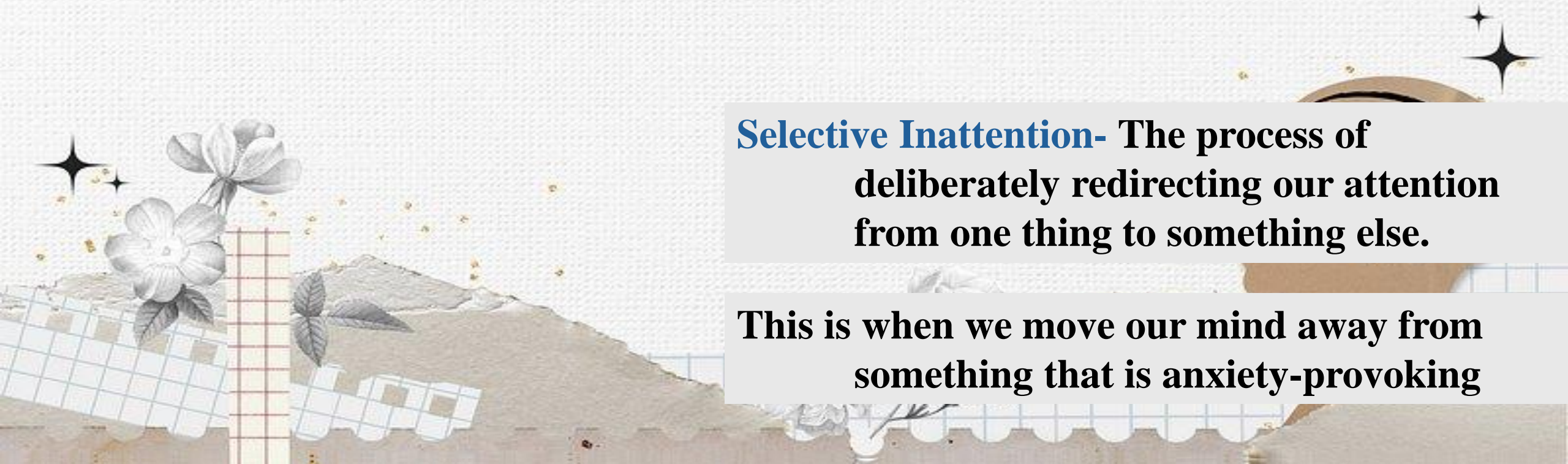
Directing Attention

In some situations, we focus all our attention on one task, such as driving

Selective Attention- The ability to control our stream of consciousness

Selective Inattention- The process of deliberately redirecting our attention from one thing to something else.

This is when we move our mind away from something that is anxiety-provoking



Directing Attention

Having our attention pulled- deliberately or accidentally- in different directions can have consequences!

Attention-Deficit Hyperactivity Disorder- Difficulty staying focused, especially on tasks that don't seem to engage


Talking to someone while driving leads to worse driving rather than listening to the radio or an audiobook



State of Consciousness

Brain waves change according to what we're doing & feeling

Slower brain waves indicate we feel tired or sluggish; faster brain waves mean we're wired or hyperalert



Beta Waves- Our normal waking state of consciousness when we are alert or engaged

Gamma Brain Waves- The fastest brain waves that indicate we are processing information from different parts of the brain

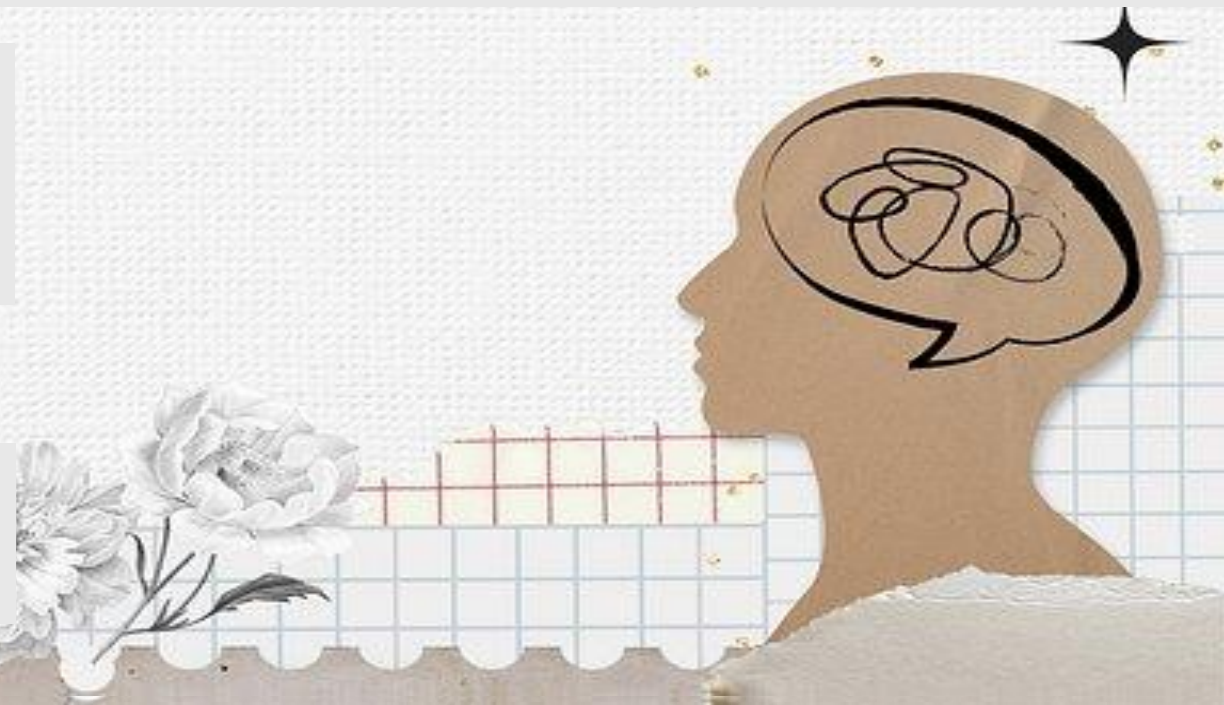
State of Consciousness

Circadian Rhythm- Brain waves found during sleep driven by an internal biological clock

Our body creates a consistent pattern of change on a 24-hour cycle, governed by hormones & neurotransmitters

Example: Our body temperatures rise as we wake & begin to dip in the afternoon before we go to sleep

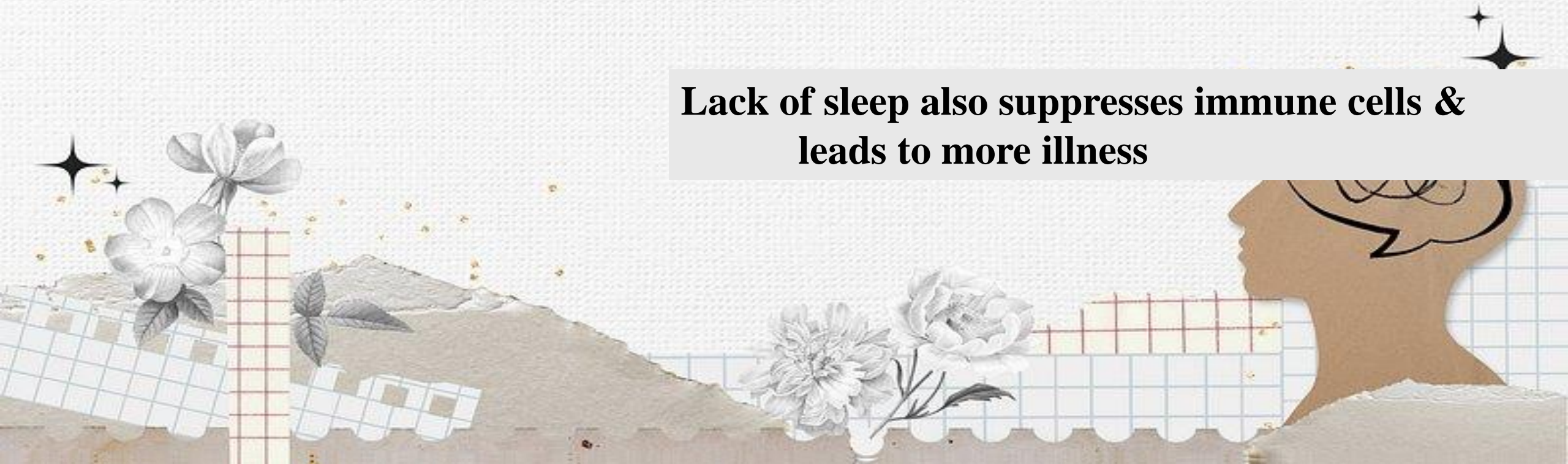
Interruptions to this causes us to feel groggy, such as jet lag



Sleep Deprivation

Sleep deprivation makes people feel irritable & causes concentration & learning issues

Lack of sleep also suppresses immune cells & leads to more illness

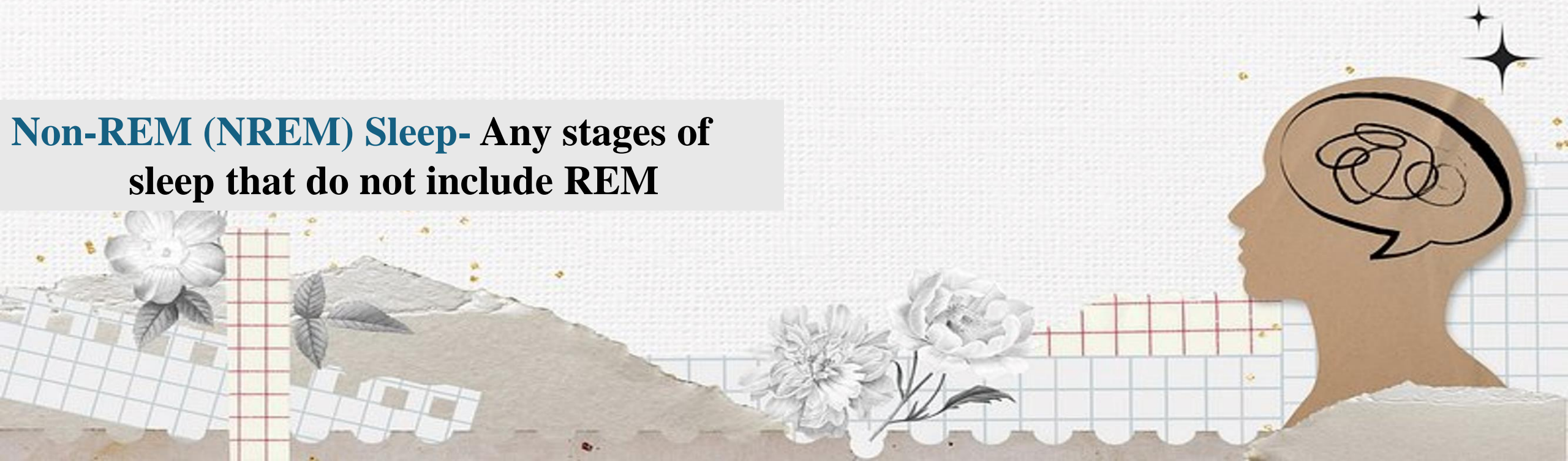


The Sleep Cycle

We have 2 types of sleep known as REM Sleep & NREM Sleep.

Rapid Eye Movement (REM) Sleep- The eyes move rapidly under the eyelid & dreams occur.

Non-REM (NREM) Sleep- Any stages of sleep that do not include REM



Sleep Waves

Beta Waves- Very small & very fast electric waves given off from the brain.

Alpha Waves- Brain waves that indicate a state of relaxation or light sleep (feeling drowsy)

Theta Waves: Deeper waves that lead into deeper sleep

Delta Waves: Long, slow brain waves that indicate the deepest stage of sleep



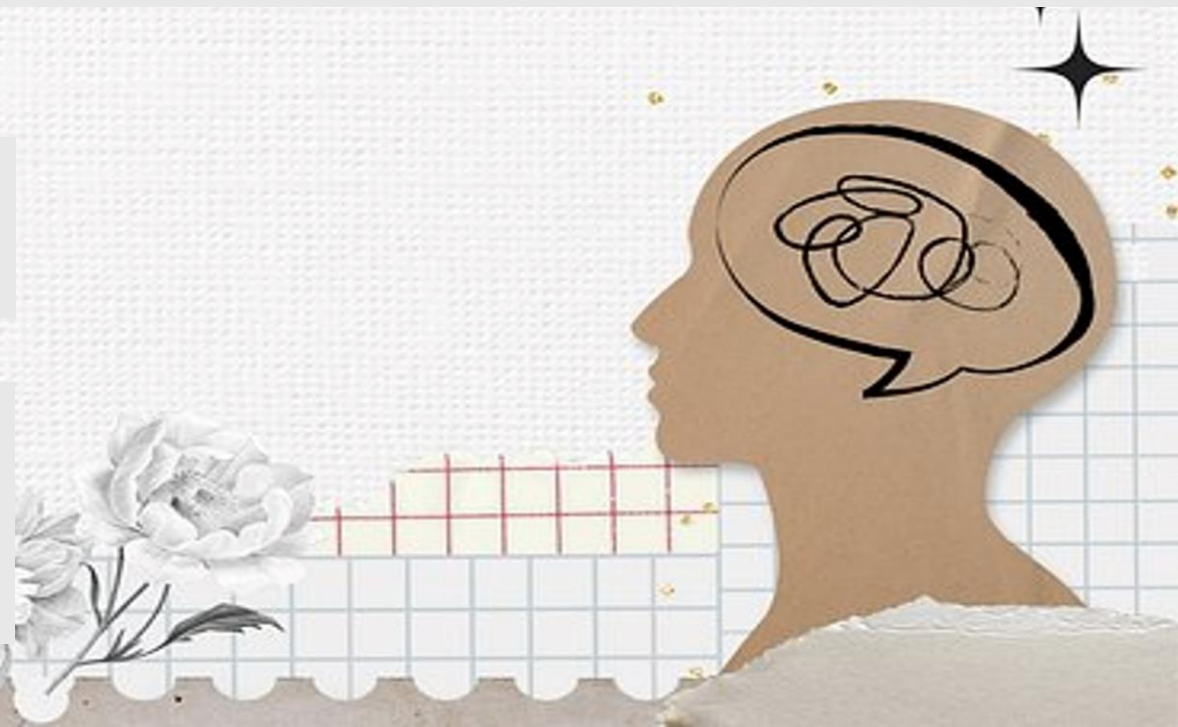
Stages of Sleep

Stage One: Light Sleep that people may not realize they are asleep but can also experience hallucinations

Stage 2: Sleep Spindles body temperature drops, heart rate slows & brief bursts of activity.

Stage 3 Deep Sleep: roll in & deepest level of sleep begins. (Sleep walking can occur)

Stage 4 REM Sleep: Body slowly begins to wake back up & people begin to dream. Rapid Eye Movement



What is the Purpose of REM?

Emotionally stressful days will lead to more REM
while physical stressful days will lead to
NREM

If you are deprived of REM sleep be ready for an
increased amount of time during **REM**
Rebound the next night

The younger the person, the more REM sleep they
experience.



Why Do We Sleep

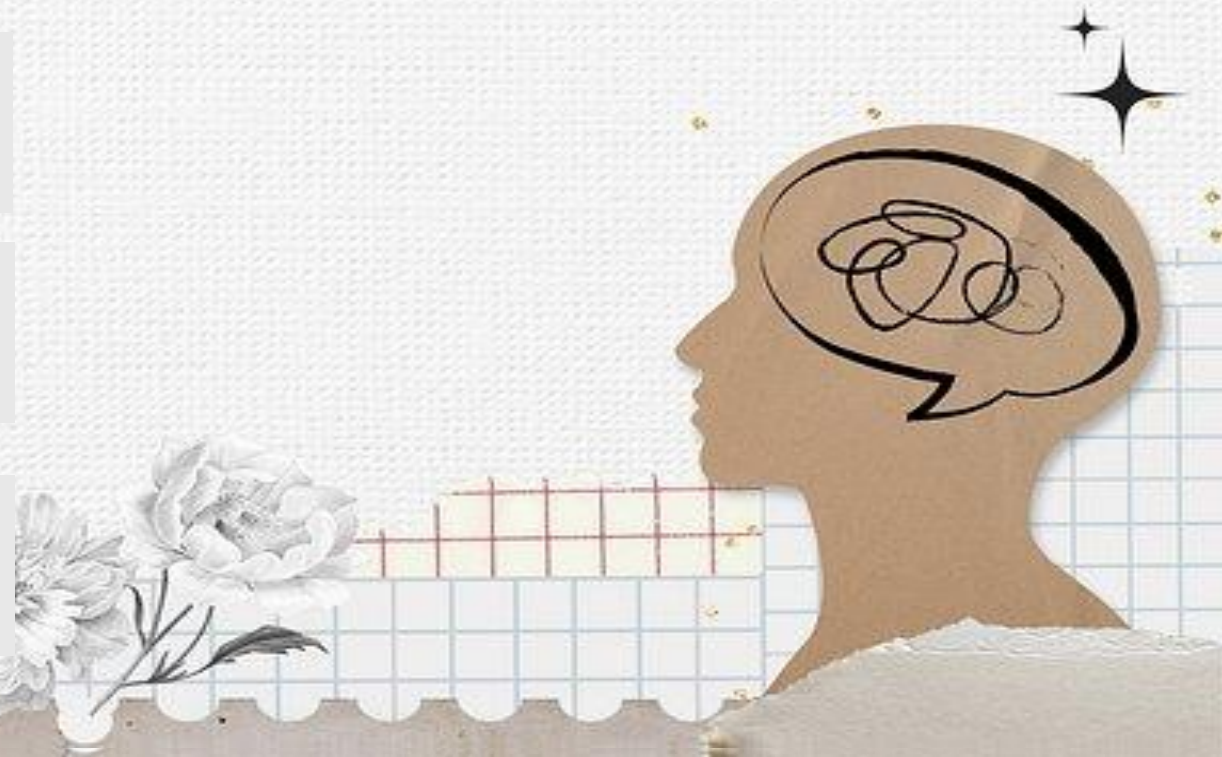
We do not have a definitive answer, but we do have 4 theories...

Theory 1- It's an adaptation to conserve energy & provide protection from predators

Theory 2- Sleep allows growth & development

Theory 3- We use it for physical & mental recovery

Theory 4- We use it to improve learning & memory



Why Do We Dream?

On average, we spend about 2 hours a night dreaming during REM sleep.

Can you dream outside of REM sleep? Does everyone dream?

Sigmund Freud believed that dreams were our unconscious wishes & thoughts that “could be threatening if considered while awake

Dream Rebound Effect- We are more likely to dream of things we are trying to ignore



Why Do We Dream?

One theory is that dreams are a by-product of random, spontaneous stimulation of brain cells in sleep

Cognitive theory- Dreams help us organize & interpret our everyday life experiences



Sleep Disorders

Nightmares: Bad dreams that take place during REM.
Children usually have more than adults

Night Terrors: A state of panic while asleep in NREM.
Will usually result in physical activity.

Sleep Walking: Occurs in about 20% of
population & people will move in sleep

Insomnia: The inability to get to sleep, stay
asleep, waking too early, or getting any
good sleep



More Sleep Disorders!

Sleep Apnea- A type of snoring that blocks the air passage for almost 10 secs & the person struggles to get air

Narcolepsy- A “sudden sleep seizure while awake”. A person suddenly slips into REM Sleep during the day



***Sleep Strategies**

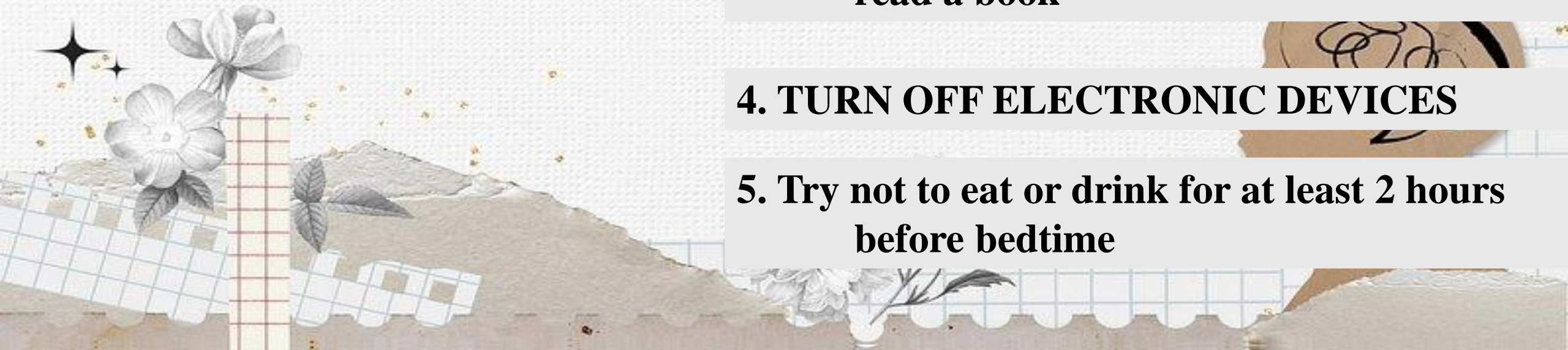
1. Stick to a schedule- This creates a predictable sleep-wake cycle

2. Create a good sleeping environment- Sleep in a room that is cool, dark, & quiet

3. Relax- Take a bath before bed, meditate, or read a book

4. TURN OFF ELECTRONIC DEVICES

5. Try not to eat or drink for at least 2 hours before bedtime



Interpretation of Dreams

Freud believed that dreams were desires that were represented while they slept

Activation-Synthesis Hypothesis- Dreams are another kind of thinking that occurs when people sleep.



Activation-Information-Mode Model (AIM) Hypothesis- Information during waking hours can have an influence on our dreams

People of different genders, ethnicities, & socio-economic backgrounds dream about different things!