

- Top-Down Processing
 - Perception is guided by higher-level knowledge, experience, expectations, and motivations; context is important in perception of objects.
- Bottom-Up Processing
 - Ex. Math, have to learn how to count -> add -> dividProcessing information by progressing from the individual elements of a stimulus and moving up to the perception of the whole
 - e
- Perceptual Constancy
 - Physical objects are perceived as unvarying and consistent despite changes in appearance or changes in the physical environment
- Depth Perception
 - The ability to view the world in three dimensions and to perceive distance
 - Ex. Provides cues regarding how far to reach for an object, how to navigate through space, and whether to duck when an object is flying at us
- Monocular Cues
 - Strategies for determining the distance of an object; requires a single eye
 - Artists exaggerate monocular cues, creating 2-dimensional images that convey the illusion of three dimensionality in an extremely realistic way.
- Binocular Disparity
 - Limited use in perceiving depth perception; each eye receives a slightly different image
 - Pencil Demonstration

Group Work

- In groups, please research and prepare to report on a specific drug or drug classification:
- Include
 - **Morphine**
 - Description
 - Andrew
 - Uses
 - Hayden
 - Effects (Long and short-term)
 - Melanie, Corinne
 - Interesting facts about the "drug"
 - Shelby, Brianna

Chapter 4

Sleep and Dreams

- Learning Outcomes

- Summarize the stages of sleep

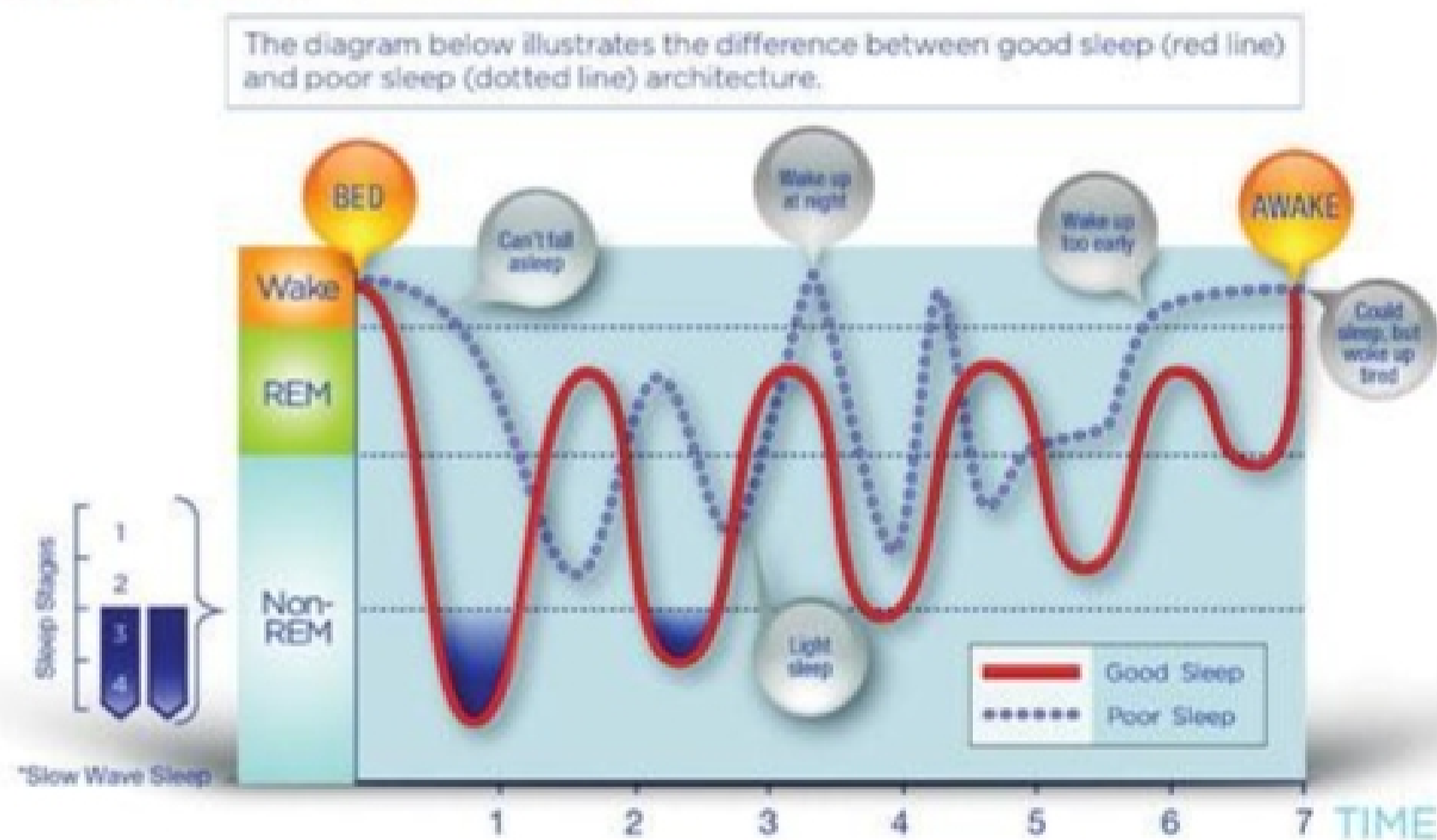
The Stages of Sleep

- Stage 1 Sleep:
 - Transition between wakefulness and sleep; rapid, low-amplitude brain waves
- Stage 2 Sleep:
 - Deeper sleep; slower, more regular waves; includes momentary interruptions of sleep spindles
- Stage 3 Sleep:
 - Slower brain waves; greater peaks and valleys in waves than stage 2
- Stage 4 Sleep:
 - Deepest stage, when we are least responsive to outside stimulation

REM Sleep: The Paradox of Sleep

- Rapid Eye Movement (REM) Sleep:
 - Fifth stage of sleep, about 20% of sleep time
 - Increased heart rate, blood pressure, and breathing
 - Rapid back-and-forth eye movement
 - Major muscles appear to be paralyzed
 - Most **dreams** occur in REM, experienced (not necessarily remembered) by everyone

SLEEP STAGE TRANSITION



The red line illustrates a deep and restful sleep pattern.
 The dotted line shows a more shallow and erratic sleep pattern.

Sleep...Why/How Much?

- Sleep is required for normal functioning, and ultimately for survival
- No set amount is required for everyone

- Most people sleep between 7-8 hours per night, but there is much variability
 - This is 3 hours less than people slept 100 years ago.
 - Sleep requirement change over the course of a lifetime. As people age, they tend to need less and less sleep

Think, pair, and share

- Why do you think people today get about three hours less sleep per night than people 100 years ago?
 - Do you think that getting less sleep is better or worse for health

Sleep Disturbances

- Insomnia
 - Difficulty falling asleep accompanied by frequent awakenings
- Sleep Apnea
 - Condition in which a person has trouble breathing while sleeping
- Night Terrors
 - Sudden awakenings from non-REM sleep accompanied by extreme fear, panic, and strong physiological arousal
- Narcolepsy
 - Sudden irresistible sleep attacks for short periods of time while a person is awake
- Sleepwalking and sleep talking
 - Little is known about these disorders that occur during stage four sleep

Sleepwalking T or F

- Sleepwalking happens while your dreaming
 - False
- Its dangerous to awaken a sleepwalker
 - False
- A sleepwalker person can't be injured
 - False
- People say what they really think while sleeptalking
 - False

Dream Journal

- Keep a record of your dreams for the next few nights
- If you have difficulty remembering your dreams, try setting your alarm 30 minutes before you usually wake up.
- Bring your description of your dreams to the next class.