Life skills and Mental health

* Wellness
  + State of health, factored by physical, emotional, intellectual and social dimensions.
  + Continuum of health: range of heath statuses
* Interpersonal skills
  + Communication, negotiation, collaboration, conflict resolution.
  + Communication
    - 2 way channel, both speaker and listener has different interpretations based on background
    - Affected by sloppy language, thinking and speaking patterns, maturity, language barriers, listening skills, facial expressions, tone, gesture, body language, eye contact.
* Decision making
  + State the situation, list options, weight outcomes, consider values, choose option and execute it, evaluate decision
  + To make informed choices, check for scientific knowledge (based on observation, peer reviewed and reproducible)
  + Refusal skills
    - To make the best choice for you without pressure
    - Say no firmly, explain why, suggest alternatives, use appropriate body language, leave when necessary
* Stress
  + Condition from meeting demands
  + Acute: temporary. Leads to heightened alertness to deal with events. Fight-or-flight response.
  + Chronic: unrelieved. Taxes a person's resources till exhaustion, and is unhealthy.
  + Stressor: demand to adapt. Can be biological, environmental, cognitive, personal and life situations
    - Different people can have different responses to the same stressor
  + Stress released hormones: epinephrine, norepinephrine, cortisol
  + Good stress/eustress: motivation, keeps away boredom
  + Bad stress/distress: unpleasant stress, unhealthy
  + Chronic stress can lead to: depression, high blood pressure, GERD, IBS, peptic ulcers, muscle pain, asthma, COPD, acne, psoriasis, weakened immune system, sped up aging, migraines, neurodegenerative disorders, etc.
  + Stress cycle
    - Alarm: tension on arrival of stressor. Fight-or-flight response to immediate physical danger. Energy is mobilized.
    - Resistance: recognize signs of stress
    - Recovery: to relieve stress and no exhaust
  + Management
    - Positive
      * Recharge: physical activities, hobbies
      * Refocus: confront problems, time management, mental rehearsal, avoid negative thoughts, reframe problems, identify and don’t ignore stressors, don’t ruminate, refusal
      * Reconnect: talk with someone
      * Relax: don’t do too much, meditate, rest, deep breathing, visualization, progressive muscle relaxation, yoga
      * Exercises: deep breathing, muscle tensing, imagery, stretches, writing a bother list, music, peptalk, massage
    - Negative: drugs, suppression, acting out, revenge, aggression, blaming, destruction.
  + Parasympathetic nervous system: homeostasis, rest-and-digestion
  + Sympathetic nervous system: threat response, fight-or-flight
  + To calm down: be prepared, confront the situation, cope with emotions, and look at the positive side
  + Affects decision making by increasing psychological arousal, leading to impulsive decisions
  + Resilience
    - Ability to cope with stress and return to normal function
  + Mechanisms
    - Defense mechanisms: Mental process that protects a person from strong or stressful emotions and situations, but makes situation worse
    - Coping skills: like a defense mechanism but doesn’t make situation worse
    - Attitude control: have positive attitude
    - Compensation: do something to make up for shortcomings
    - Denial: refuse to acknowledge
    - Displacement: use stress energy to do something good
    - Fantasy: to pretend something good happened in lieu of something bad
    - Idealization: view something as perfect
    - Meditation: to relax mind and body
    - Progressive muscle relaxation: relax muscles throughout body one at a time
    - Projection: place blame on others
    - Placebo: fake
    - Rationalization: to make up excuse
    - Regression: reverting to childish behavior
    - Repression: involuntarily forget unpleasant thought
    - Selective forgetting: intend to forget negative association of you
    - Sublimation: use stress energy for creative work
    - Suppression: intend to forget unpleasant thought
    - Time management: planning time
    - Ventilation: release stress energy through talking
    - Withdrawal: avoiding something enjoyable for long periods
    - Reaction formation: acting opposite of proper
* Emotions
  + Primary emotions: born with, expressed universally
  + Learned emotions: learned from environment of development
  + Nonverbal cues are most accurate for identifying emotions
  + Emotional intelligence: recognize and express correct emotions
    - High emotional intelligence people are self regulated, motivated and have good social skills
  + Empathy: ability to view from another’s perspective
  + To manage emotions, identify them, openly share them and don’t deny them
  + Afraid: fear, worry
  + Angry: mad
  + Ashamed: feeling bad after doing wrong
  + Confident: feeling able to do something
  + Confused: unable to think clearly
  + Depressed: sad
  + Embarrassed: worry about what others think
  + Energetic: full of energy
  + Excited: happy
  + Glad: joy
  + Jealous: sad that someone has something you want
  + Lonely: feels like no one cares
  + Relaxed: at ease
  + Stressed: tense
* Setting a goal
  + Evaluate situation, set a timeline (problem decomposition), give reward. Make sure goal is feasible
  + Reaching goal makes you happy
* Identity
  + Physical, active, social, psychological factors
  + Ethnic identity development: unexamined > search > achievement
  + Gender is self identity and comes with gender roles, or societal expectations
  + Citizenship: recognized to have rights and duties of all members of a community
* Esteem
  + Self respect, based on achievements, talents, contributions, and not outside opinions
  + Affected by environment, interactions, perceptions
  + Signs of low self esteem: insecure, disrespects self and others, vulnerable to peer pressure, drug + alcohol abuse, not feeling valued, fear failure, may mask it with confidence, attention seeking
    - Self talk about worthlessness, no accomplishments, being a jerk
  + Signs of high esteem (not arrogance): respects self and others, reaches goals, willing to be leader, accepts and learns from failures
    - Self talk about being valued, accomplishments, happy, good person
    - To boost self esteem, picture success, believe in yourself, face failure
  + Self concept: self image
  + Self actualization: strive to be your maximum best
    - Fulfills physiological needs, then safety needs, then seeks to be valued, then works on esteem, and finally fulfillment
* Addiction
  + When a person ingests a substance or engages in an activity that can be pleasurable but compulsive and affects life.
  + Internet addiction
    - Impulse control disorder, like pathological gambling
    - When surrounded by tech, is impulsive to uses it always
    - Attachment to online friends and activities. Replace real world with virtual fantasy. No real life connections.
    - Software using advertising revenue models employ methods to persuade users to get hooked on a product
* Cognitive distortions
  + Black/white: all or nothing
  + Rumination: repeating same thought without completion
  + Overgeneralization: see event as never ending pattern
  + labeling: self negative association
* Mental disorders/illnesses
  + Involves thoughts, feelings and behaviors
  + Anxiety disorders
    - Real or imagined fears that are difficult to control
    - Phobia: strong or irrational fear of something
    - OCD: stuck in a pattern of repeated behavior or thought
    - Panic disorder: sudden unexplained feelings of terror
    - PTSD: condition after exposure to event causing mental or physical harm
  + Mood disorder
    - Clinical depression: long period of extreme sadness that doesn't go away
    - General depression: less severe than clinical
    - Bipolar disorder: swings between depression and manic symptoms
  + Schizophrenia: loses contact with reality, have hallucinations, paranoid, bizarre delusions that can’t be differentiated from reality.
  + Factors:
    - Biological factors: genetics, brain injury, environment during pregnancy
    - Traumatic factors: death of loved one, abuse, financial pressure, divorce
  + Personality disorders:
    - Antisocial personality disorder: disregarding social rules, impulsive, indifferent about others.
    - Borderline personality disorder: unstable relationships, fear of abandonment, shifts in attitude
  + Eating disorders
    - May be caused by insecurities, resources present, perfectionism, anxiety, depression, depression, OCD, emotions
    - Signs: calories counting, unreasonable weight, taking food away, breaking apart food, avoiding food, over exercising, diet pills, eating alone
    - Anorexia nervosa: choose to starve themselves
    - Binge eating: eating a lot of food in short period of time
    - Bulimia: vomit of purge food before digestion
    - Compulsive eating: eating when not hungry
    - EDNOS: bizarre eating patterns that don’t fit into description of any other eating disorder
    - Night eating syndrome: late night binge eating
    - Over Exercise: exercise to burn too much
    - PICA: eating non food items
    - Selective eating disorder: eating limited range of food
    - Sleep eating syndrome: eat when sleeping
  + Suicide
    - Factors
      * Health: health conditions, depression, substance abuse, painful injuries, mental conditions
      * Environment: access to drugs, weapons, prolonged stress, stressful events, exposure to suicide
      * Historical: previous attempts, family history, abuse, worrying about others
    - Signs
      * Talks about: killing themselves, feeling hopeless, no reason to live, burden, trapped, pain
      * Behavior: alcohol, drug use, looks up methods of death, withdrawal from activities, isolating from others, giving away prized possessions, sleeping too much/little, visiting to say goodbye only, aggression, fatigue
      * Mood: depressed, anxiety, lost of interest, irritability, shameful, angry, sudden relief
    - Components: ideation of death, intent to die, plan to die
    - Survivors: knows someone who committed suicide
    - Help person by reaching out to suicide prevention resources and calling 911 when necessary
      * Also ACT: acknowledge the problem, care about the person, tell someone about the problem
  + Therapy
    - Therapist: professional who diagnoses and treats mental illnesses
      * Psychiatrists: can prescribe medication
      * Neurologist: specializes in the nervous system
      * Psychologist, social workers, guidance counselors
    - Individual therapy, family therapy, support groups, medication
    - Can support loved one by letting them know you’re there for them and offer to help find resources
* Values and characters
  + Values: ideas, beliefs, attitudes about that’s important. Guides the way a person lives
  + Character: qualities affecting the way a person thinks, feels, believes
  + Pillars of character: trustworthiness, respect, responsibility, fairness, caring, citizenship
* Sleep
  + Teens are likely to have sleep deficiency due to having a demanding life
  + Sleep deficiency can lead to health issues, such as weak immune system, heart disease, diabetes, obesity, etc. Also accident prone due to decreased concentration, and decreased academic performance, such as low grades, inability to focus and solve problems, inability to retain info, etc.
  + Sleep and other biological cycles follows a 24-hr circadian rhythm, controlled by the SCN (suprachiasmatic nucleus)
  + Sleep cycle
    - About 90-110 mins
    - Dreams are about 5-20 mins, 2 hrs total
    - Stage 1: light sleep, hallucination
    - Stage 2: drop in heart rate and temperature
    - Stage 3: transition between light and deep sleep
    - Stage 4: Deep sleep with eyes and muscles shut down
    - REM sleep: increase in blood pressure, heart rate and breathing. Muscles paralyzed eyes rapidly dart. Brain regions for learning are stimulated, increased proteins are produced, brain development occurs
    - First sleep period has short REM sleep and long deep sleep, and each successive cycle increases REM sleep and decreases deep sleep

Nutrition

* Nutrition: body taking in and using food
* Digestion: break down foods into nutrients that body can use
* Empty calories: different food can have the same amount of calories, but one may have more nutrients than another. The one with less nutrients for the same calories is empty calories
* Junk food: low in nutritional value
* Fast food: designed for quick easy accessibility and consumption, while sacrificing quality
* Nutrient dense foods: high in nutrients and low in calories
* Nutrients: compounds and substances needed for growth, function, repair and energy
  + Energy yielding: provides calories for energy.
    - Carbohydrates
      * 4 cal per gram
      * Starch
        + Main food energy. Converted to glucose for energy
        + Simple carbs: bad kind. Low nutritional value, low in fiber. Very quickly converted to sugar, and excess sugar is converted into glycogen and the rest into fat.
        + Complex carbs: good ones. High in fiber, making conversion to sugar slower, to prevent excess sugar.
      * Sugars
        + Glucose: simplest sugar, used for energy. Excess are stored as glycogen in the liver and muscles, and the rest as fat.
        + Fructose: in fruit and honey. Is an unnecessary sugar
        + Lactose: in dairy. Is an unnecessary sugar
        + Sucrose: table sugar. Is an unnecessary sugar, but tasks good.
      * Fiber: indigestible and gives no energy, but used for cleaning, maintaining and regulating digestive system
      * Glycemic index: ranks carbs based on how fast it peaks and dives blood sugar level
    - Protein
      * 4 cal per gram
      * Made of amino acids
      * Has functions in the body such as repairing, creating new parts, etc.
      * Can also be burned for energy
      * Essential proteins: not produced by body, must be consumed
      * Nonessential proteins: produced by body, doesn’t have to be consumed
      * Complete proteins: has all 9 essential proteins
      * Incomplete proteins: missing some of the 9 essential proteins
      * Complementary foods: food that has essential proteins that another lacks, which lacks the essential proteins that the other has
    - Fats
      * Fatty acids, lipids
      * 9 cal per gram
      * Burned for energy, used for insulation, lubrication, cushioning
      * Saturated
        + Has all the hydrogen atoms as the carbon chain can hold
        + Worse for arteries
        + Solid at room temperature
        + Contains cholesterol

HDL: high density lipoprotein: good cholesterol. Travels to liver, and removes LDL from arteries.

LDL: low density lipoprotein: bad cholesterol, accumulates in arteries

Body decides whether cholesterol becomes HDL or LDL. High fiber foods and exercise help keep HDL/LDL ratio healthy

* + - * Unsaturated
        + Doesn’t have all the hydrogen atoms the carbon chain can hold
        + Liquid at room temperature
        + Better for arteries
        + Has no cholesterol
      * Trans Fat/hydrogenated oil
        + Unsaturated fat converted to saturated
        + Worst type of fat
        + Leads to cancer, increases LDL cholesterol
  + Non energy yielding: provides no energy but required to get energy out of energy yielding nutrients
    - Water: Most important, as the body is mainly water
      * Electrolytes: help maintain fluid balance
    - Vitamins
      * Required for proper growth and function
      * Fat soluble: dissolves in fat. High levels stored is toxic. A, D, E, K
      * Water soluble: dissolves in water. Excess is excreted. B, C
      * Vitamin A: maintains immune system, promotes cell growth, improves vision
      * Vitamin B: aids liver function, supports red blood cells, helps with metabolism, brain function, helps in DNA production
      * Vitamin C: Grow and repair body
      * Vitamin D: Regulate absorption of calcium
    - Minerals: elements needed to perform bodily functions
      * Iron: helps transport oxygen throughout body, creates red blood cells and keeps cells healthy.
      * Calcium: fortifies teeth and bones
  + Macronutrients: make up bulk of diet
  + Micronutrients: not macro, but still essential for good health
* Calories: unit of heat used to measure energy used by body or given by food
  + 3500 calories = 1 pound
* Hunger: physical drive that protects from starvation
* Appetite: desire, but not need to eat
* Additives: substances added for a desirable effect, such as color, flavor, preservative
  + Many of these are harmful, such as carcinogenic
  + Propyl gallate, BHA, BHT: preserves fats
  + KBr: increases volume in bread
  + MSG: enhances flavor
  + Aspartame, acesulfame-K: artificial sugar
  + Oestra: artificial fat
  + Sodium nitrite: preservative, color, favor
  + Food dye: coloring
* Intolerance: inability to digest certain food
  + Allergies: immune system responds to food assuming it’s a harmful substance
* Body image: how a person sees him/herself
  + Body mass index (BMI): determines body size based on height and weight
  + Overweight: weighs more than standard weight range for height
  + Underweight: weighs less than standard weight range for height
  + Obesity: weighs 20+% over standard weight range for height
  + Malnutrition: poor diet or lack of food. Not enough nutrients, unbalanced diet
    - Affected by some low income neighborhoods not having much resources for good food or physical activity
    - Also affected by abundance of fast food restaurants
* Dietary supplements: additional food to help reach daily requirements
  + Mega dose: large amount of dietary supplement
  + Herbal: chemicals in plants as supplements
* Diets: weight loss plans
  + Fad: trendy ones
  + Weight cycling: pattern of weight loss and gain
  + Vegetarian: only/mostly plants
    - Ovo: plants and unfertilized eggs
    - Lacto: plants and dairy
    - Ovo-lacto: plants, unfertilized eggs and dairy
    - pesco/pollo and semi: plants, fish, chicken and some types of meat
    - Vegan: plants only
* Food label: indicates percentage the food contributes to daily recommendations, as well as ingredients sorted by weight contributed to the food

Diseases

* Non-communicable
  + Cannot be spread from person to person
  + Typically a result of lifestyle
  + Diabetes
    - Type 1 diabetes
      * Little to no insulin produced due to insulin producing cells being destroyed
      * Leads to thirst, blurry vision, tiredness, nerve damage, limb damage, thick blood, poor circulation, heart disease, high blood sugar, damaged organs, excess urination, etc.
    - Type 2 diabetes
      * Cells no longer respond properly to insulin
      * Same results as type 1 diabetes
    - Gestational diabetes
      * Elevated blood sugar due to pregnancy
      * High blood sugar, thirst, fatigue
    - Prediabetes
      * Before diabetes
      * Same results as type 1/2 diabetes, but not severe enough to be classified
  + Metabolic syndrome
    - High blood pressure, high cholesterol and insulin resistance, leading to heart disease, weight gain, blood clots
  + Cirrhosis
    - Abnormal liver function due to scar tissues replacing normal tissues, due to alcohol, hepatitis, autoimmune
    - Leads to fatigue, weight loss, high levels of toxin in blood
  + Cardiovascular diseases
    - Heart attack (Myocardial infarction)
      * Irregular beating causing inability to properly circulate blood
      * Due to a coronary artery blocked
      * Uncomfortable pressure, fullness, squeezing, pain in chest
      * Dizzy fainting, shortness of breath
      * Pain in shoulder, neck, arm, especially in left side
      * Flu like symptoms in women
    - Cardiac arrest
      * Heart stops beating due to electrical issue
    - Stroke
      * Ischemic: Clot affecting blood flow to brain
      * Hemorrhagic: bleeding in or around brain
      * Numbness and limited function on one side of body
      * Confusion, loss of speech and understanding of speech, dizziness, blurry vision in one eye
      * Face Arm Speech Time
    - Hypertension: aka high blood pressure
    - Arteriosclerosis: hardening of the arteries
    - Atherosclerosis: plaque builds up in artery’s wall
    - Fibrillation: rapid, irregular heartbeats that can lead to problems
    - Arrhythmias: irregular heartbeats that make it difficult to circulate blood
    - Angina: heart pain
    - Aneurysm: ballooning out of artery’s wall
    - Murmur: sound that indicates weakened or damaged heart valve
    - Tests
      * Electrocardiogram (EKG): tests heart’s electrical rhythm
      * Echocardiogram: tests heart’s structure using soundwaves
    - Treatment
      * Stent: hollow mesh wire inserted in artery to improve blood flow
      * Angioplasty: plastic balloon used to spread out plaque
      * Bypass surgery: healthy artery grafted around a blocked artery
  + Cancer
    - When cells divide and function differently from the way they should
    - Tumor: cluster of cancer cells
      * Benign: doesn’t spread
      * Malignant: metastasizes (spreads)
    - Melanoma: cancer of pigment cells
    - Myeloma: cancer of bone marrow
    - Lymphoma: cancer of immune and lymphatic system
    - Carcinoma: cancer of organs, glands, body lining and chambers
    - Sarcoma: cancer of connective tissues
    - Leukemia: cancer of blood forming tissues
    - Basal and squamous cells: skin cancer but not melanoma
      * Look for asymmetry, unsmooth edges, color change, large diameter, elevation evolving
    - Polyps: tumors on stems in body chambers
    - Tests
      * Biopsy: test for cancer by looking at cells under microscope
      * Mammogram: xray of breasts at horizontal and vertical angles
      * Pap-smear: test for cervical cancer
      * Colonoscopy: examination of colon with a fiber optic scope
      * Endoscopy: examination of esophagus and stomach with a fiber optic scope
      * PSA: prostate specific antigen blood test
    - Treatments
      * Mastectomy: removal of breasts
      * Radiation: use of radiation to stop, shrink and kill cancer cell
      * Bone marrow transplant: use bone marrow of healthy person to grow new immune system
      * Chemotherapy: use poisonous chemicals to kill cancer cells
      * Immunotherapy: train immune system to attack cancer cells
    - Signs of cancer
      * Change in bowel or bladder habit
      * A sore that doesn’t heal
      * Unusual bleeding or discharge
      * Thickening of lump
      * Indigestion or trouble swallowing
      * Obvious changes
      * Nagging cough or hoarseness
      * Sudden weight loss
    - Oncologists treat cancer
    - Early detection makes it easier to treat
    - Limit exposure to carcinogens
    - Staging: severity based on amounts of cells affected, spread, effects, location
    - Cancer cluster: in a region, when a greater than expected amounts of cancer cases arise
  + Asthma: airways narrow and gets filled with mucus leading to wheezing
  + Arthritis: inflammation of joints
    - osteoarthritis: from joints wearing out
    - Rheumatoid arthritis is from immune system damaging joints
* Communicable
  + Spread from a person to another
  + Caused by a pathogen
    - Bacteria, virus, fungus, worms, protozoa
    - Bacteria can be killed with antibiotics
    - Affects body either by producing toxins or causing immune response
  + Direct transmission: person to person nearby through contact, sprayed droplets containing pathogens
  + Indirect transmission: person to a carrier to another person
    - Vectors: through animals
    - Droplets containing pathogens picked up on surfaces
    - Foodborne illnesses: food poisoning or illness from contaminated food
      * Cross-contamination: bacteria spreads from food to food
      * Pasteurization: heat up food to kill bacteria
  + To prevent spreading diseases, cover mouth when sneezing, coughing. Wash hands before and after doctor visits, handing food. Be vaccinated. Handle food properly

Substance Abuse

* Drug: a substance used to cure, prevent or manage diseases by affecting processes in the mind and body
  + Drug use: utilizing a drug for a legit reason following the instructions
  + Drug misuse: utilizing a legal drug for inappropriate reasons or unintentionally failed to follow instructions
  + Drug abuse: usage of illegal drugs, or intentionally using a drug inappropriately in a way that causes damage.
  + Over the counter drugs: without a doctor’s prescription
    - Ex: pain relievers, antihistamine
  + Prescription drugs: doesn’t need a doctor’s prescription
  + Addiction: when a person uses a substance or performs an activity that causes pleasure even when it can cause negative consequences
  + Stimulants: stimulates an increase in bodily activities
  + Depressants: slows down the central nervous system to decrease bodily activities
  + Synergic effect: effect of drugs mixing
  + Antagonistic: negates the effects of another drug
* Alcohol
  + A depressant
  + Ethanol alcohol produced through fermentation
  + Makes person accident prone and unable to make good judgment
  + Binge drinking: consumption of a large amount of alcohol in a short time period
  + 1 drink = amount of beverage that contains 0.5 oz of pure ethanol
  + Alcohol poisoning
    - alcohol suppresses the central nervous system, leading to loss of consciousness, low blood pressure, difficulty breathing, hypothermia, seizures, coma, etc, and involuntary processes may stop
    - Blood alcohol content of 0.26%-0.4% is lethal
  + Intoxication: state of being poisoned by alcohol
    - considered >0.08% in NYS
    - Affected by tolerance, rate of consumption, weight, gender, food consumed, concentration, age, body fat, drugs, mental state, setting
  + Can cause dehydration
  + Over time regular alcohol consumption can lead to cancers, neurological, gastrointestinal, cardiovascular disorders, cirrhosis
  + Fetal alcohol syndrome
    - If the mother drinks during the first few weeks of pregnancy, the child can have facial abnormalities
    - If the mother every drinks during pregnancy, the child can have abnormal mental development
  + Alcoholism: dependency on alcohol
  + Alcoholic: a person who is psychologically and physically addicted to alcohol
    - Signs: high alcohol tolerance, blackouts, withdrawal symptoms
    - Treatment: detoxification (withdrawing from alcohol with medication to help with coping with withdrawal symptoms), medication, support groups, self-management
  + You must have a real ID and age of 21 or over to buy alcohol
* Marijuana
  + The most common illicit drug in the US
  + Affected learning, coordination, memory, response time, perception
    - Requires the brain to work harder to get the same results as someone who isn’t on marijuana
  + THC (active compound from cannabis) works by binding to receptors in some areas of the brain
  + Can lead to depression, anxiety, and suicidal thoughts
  + Increases heart rate, which can lead to arrhythmias
  + A carcinogen, and much worse, as people hold it in much longer than cigarettes
* Vaping
  + People think its safer than cigarettes, but it’s not
* Tobacco
  + Stimulates the release of adrenaline, which increases breathing, heart rates and blood pressure
  + Nicotine also constricts blood vessels and change blood vessel walls to increase plaque buildup
  + Can lead to tar accumulation that prevents the cilia from clearing foreign particles from lungs
    - Can irritate airways lining, which can trigger asthma attacks
  + Can lead to COPD
  + After stopping for a few days, blood pressure, heart rate, and coughing decreases
  + Quitting
    - Nicotine replacement: person intakes nicotine in other ways to alleviate withdrawal symptoms. Amount taken decreases over time
    - Medications that stimulate the release of dopamine to create the same type of effects as nicotine, to alleviate withdrawal symptoms
    - Self-management: avoid scenarios that make nicotine use tempting, or respond to these scenarios differently
  + Smoking in public areas is banned, advertising is limited, flavorings are banned, heavy taxes are imposed, etc to prevent people from starting cigarettes, help smokers quit and protect nonsmokers
* Opiate
  + Chemical from poppy plants that’s a strong pain reliever
  + Narcan antagonistic
  + Advertised to doctors as a very effective painkiller, so doctors kept on prescribing it, causing people to get hooked on it
* Date rape drugs
  + Depressant - Works by making the victim unaware of their surroundings
  + GHB: white tablet manufactured at home
  + Ketamine: white powder or clear liquid manufactured in a lab used pharmaceutically or stolen as a rape drug
  + Rohypnol: pill manufactured in a lab, used to treat insomnia, and later as a rape drug
* Hallucinogens
  + Hallucinations can recur even after stopping the drug
  + Peyote: fruit from a cactus that causes hallucinations
  + LSD: chemical from ergot fungus to change mood, thoughts, perception of space and time to create hallucinations
  + PCP: tablets that cause aggression, hallucinations, poor coordination, irrational judgment
  + Psilocybin: a compound in a mushroom that caused closed eye hallucinations, and damages prefrontal cortex to slow down the perception of time
* Synthetic drugs
  + Take an illegal drug and modify it to become “more legal”, while amplifying its effects
  + Inhalants: Household chemical vapors that can cause suffocation
  + Bath salts: stimulant synthesized in labs, looks like its name
  + K2/Spice: synthetic cannabis, made by spraying synthetic THC on leaves
* Performance enhancing drug
  + Simulant
  + Steroids: synthetic testosterone that raises blood pressure and hormonal imbalance
  + Adderall: cognitive enhancer used to treat ADHD, can raise blood pressure
  + Creatine: a powder that increases muscle energy that dehydration and muscle cramps
* Club drug
  + Crystal Meth: clear crystals synthesized in labs as a stimulant, that can cause hallucination, increased blood pressure, violence
  + Molly/ecstasy: pill manufactured in labs used to treat PTSD and cause psychological damage
* Cocaine: stimulant powder from the coca plant that creates a high feeling, spasms, increased heart rate, hostility
* Crack: cocaine with baking soda
* Caffeine: stimulant white powder from plants that causes increased blood pressure, dehydration, increased performance

Sexuality

* Anatomy
  + Male
    - Sperm: male gamete that can survive for 72 hours inside a female
    - Testis: produces sperm and testosterone
    - Scrotum: surrounds testis, regulates temperature
    - Epididymis: stores sperm
    - Testicle: testis + epididymis
    - Vas deferens: connects testes to the urethra
    - Seminal vesicle: a gland that secretes alkaline fluid, rich in fructose
    - Prostate gland: a gland that secretes a milky alkaline fluid that neutralizes the acidic environment of the vagina and urethra
    - Cowper’s gland: a gland that produces pre-ejaculation fluid to lubricate and neutralize the environment. May contain sperm
    - Urethra: opening on the penis for semen and urine to leave the penis
    - Penis: male sex organ that fills with blood to become erect when aroused. Contains 4000 nerve endings for pleasure
    - Glans: head of penis, highest concentration of nerve endings
    - Foreskin: a fold of skin that covers glans
    - Semen: a mixture of 3 mL sperm, seminal fluid, prostate fluid, and Cowper’s fluid
  + Female
    - Ovaries: matures the 200000 eggs and secretes sex hormones
    - Fimbria: finger-like projections that stimulate ovaries to pull an egg to go to the fallopian tube
    - Fallopian tube: 3-5 inch pipe connecting the uterus to ovaries. The egg stays there waiting to be fertilized
    - Uterus: pear-shaped organ where zygote develops
    - Endometrium: uterus lining with blood and nutrients to develop a baby. The lining is kept if the egg is fertilized. Else, it’s shed.
    - Cervix: 8-10 cm opening of the uterus for delivery
    - Vagina: 4-6 inch muscular passage for sex and delivery
    - Bartholin’s gland: analogous to Cowper’s gland
    - Clitoris: has 8000 nerve endings for pleasure, and becomes erect when aroused
    - Labia minora: an inner fold of skin starting at the clitoris
    - Labia majora: outer fold
    - Vulva: female external reproductive region
* Reproduction
  + Prenatal care: care during and after pregnancy
  + Menstrual cycle
    - From puberty to menopause
    - Follicle stage (uterus lining thickens) > ovulation (egg released, can be impregnated for the next ~24 hours) > corpus luteum (further thickens uterus lining) > menstruation (if egg not fertilized, uterus lining will shed)
  + Sperm fuses with egg to create zygote (fertilization, conception)
    - If multiple eggs were released and fertilized: fraternal twins
    - If zygote splits into 2: identical twins
      * If split is incomplete: conjoined twins
  + Zygote cleaves
  + 6-10 days later, zygote is implanted to uterus lining
  + 8 weeks later, embryo becomes fetus
  + Fetus develops until birth when it can live independently
  + Labor: contractions that cause the cervix to dilate
    - There could be false labor
  + Crowning: when the baby’s head can be seen
  + Episiotomy: cutting of vagina to assists with the delivery
  + Lactation: production of milk after pregnancy
    - Colostrum: initial milk produced, filled with antibodies to develop the immune system
  + Development time divided into trimesters: weeks 0-12, 13-24, 25-40
  + Fetus: Developing offspring
  + Placenta
    - Connects mother to child
    - Basically put the egg in the parent
    - Allows through
      * Mother to child
        + Digested nutrients
        + Antibodies

Fatal if it’s against antigens found in embryo

* + - * + Oxygen
        + Teratogen - harmful to fetus

Radiation

Toxic chemicals

Ex: mercury

Diseases

Such as rubella, AIDS, herpes, syphilis

Drugs

Such as alcohol, cocaine, heroin

Fetal alcohol syndrome: developmental defects leading to low birth weight, and other defects

* + - * Child to mother
        + Carbon dioxide
        + Urea - pee
  + Umbilical cord: Connects fetus to placenta
  + Amniotic fluid: Fluid around embryo
  + Sonogram: uses high-frequency sound to take pictures of the fetus
  + Amniocentesis: a genetic test of the fetus using a long needle inserted through the abdominal wall
  + CVS: an earlier version of amniocentesis
  + Cesarean section: birth by surgery
  + Complications
    - High-risk pregnancy: higher chance of complications
    - Transverse birth: the fetus is sideways
    - Breech birth: the fetus is head up
    - Ectopic pregnancy: implantation in the fallopian tube
    - Premature: born before 37 weeks, with underdeveloped respiratory system
    - Low birth weight: under 5.5 lb
    - Congenital: condition a person is born with
    - Spina bifida: large spacing of spinal bones
    - Neural tube defects: abnormal development of neural tube
    - SIDS: the unexplained sudden death of a baby
    - Shaken baby syndrome: violently shaken baby has brain damage
    - FAS: disabilities due to mother drinking alcohol during pregnancy
    - FAE: a subtler version of FAS
* Birth control
  + Barriers, such as diaphragms, cervical caps, contraceptive sponge, condoms prevent sperm from meeting the egg. Also prevents STD
  + Spermicide: poisons sperm.
  + Rhythm method: chart out the menstrual cycle to figure out when the women can’t be impregnated.
  + Withdrawal: pull out penis before ejaculation. Not effective
  + Emergency contraceptive pill: forces menstruation
  + Sterilization: prevents sperm from leaving body or egg from contacting sperm
  + IUS: device installed into uterus that creates a hostile environment against sperm
  + Hormones, such as oral contraception, patch, vaginal wall, injections, implants, makes the female body believe it’s pregnant, so that it can’t be impregnated
* STD
  + Bacterial: curable with antibiotics
  + Viral: manageable with antiviral medication
  + Parasitical: curable with medication
  + Scabies: parasite that burrows inside skin and feeds on blood, laying eggs, causing itch and bump
  + Crabs: like scabies but on pubic hair
  + HSV1: virus that causes blisters on oral area
  + HSV2: like HSV1, but on genital area
  + HPV: virus that causes cervical cancer, cauliflower growth on genitals
  + Hepatitis: virus that damages liver
  + Chlamydia: bacteria that causes painful urination
  + Gonorrhea: bacteria that causes yellow-green discharge from urethra
  + Syphilis: bacteria that causes painless sour, then rash, then attacks nervous system
* Puberty
  + Triggered by gonadotropin-releasing hormone
  + Formation of sex characteristics
  + Able to reproduce and develops interest in sex
* Sexuality
  + Personality affected by biological sex, gender, sexual orientation and sexual experience
  + Influences appearance, emotion, cultural views and ethical concepts
  + Intersex: having external sex organs that aren’t obviously male or female
  + Transgendered: those who believe their gender is opposite their biological sex
  + Gender doesn’t determine masculinity or femininity
  + Heterosexual: attraction to opposite sex
  + Homosexual: attraction to same sex
  + Asexual: attracted to no one
  + Bisexual: attracted to same and another sex
  + Pansexual: attracted to all sex
  + Cisgender: person whose gender aligns with sex
  + Transgender: person who lives as a gender that doesn’t align with sex
  + Intersex: has biological traits that do not align with male nor female
  + Androgynous: expressing both masculinity and femininity
  + Homophobia: fear of members of LGBTQ community
  + Transphobia: fear of transgender people
* Sexual activity
  + Wet dreams: ejaculation during sleep due to buildup of sex hormones
  + Masturbation: self stimulation
  + Foreplay: activities that arouses a person before sexual activity
  + Afterplay: activities after sexual activity to let partner know how you feel about him/her
  + Sexual response cycle
    - Excitement: person gets mentally and physically stimulated for sexual activity. Erection (engorgement of soft tissues that cause the body part to be firm), vaginal lubrication
    - Plateau: peak before orgasm
    - Orgasm: intense pleasure, muscle spasms and release of hormones. Ejaculation (fluid forcefully released from sex organ)
    - Resolution: breathing and heart rate returns to normal
  + Aphrodisiac: substance that arouses sexual desire
  + Sexual dysfunction: person can’t engage in sexual activity due to psychological or physical abnormalities
  + Erectile dysfunction: inability to maintain an erection
  + Orgasmic dysfunction: inability to achieve orgasm
  + Virgin: a person who isn’t engaged in a specific behavior
  + A person can’t give consent when under pressure, under the influence of drugs or alcohol, having certain disabilities or underaged
* Sex is based on biology, while gender is self identity
* Love is unconditionally caring about someone, while infatuation is short lived interest in someone, usually based on appearance
* Harassment
  + Sexual harassment: unwanted sexual attention
    - Verbal: spreading rumors of someone’s sexual nature, unwelcome comments and questions, spreading rumors, catcalls
    - Nonverbal: inappropriate gestures, unwelcome touching, cornering someone, unwelcome sexual advances, exposure to disturbing content, secretly taking a picture of someone, hacking, intimidating looks, pressure
    - Sexual assault: forcefully engaging in sexual activity without consent from other party
      * Rape: forcefully engaging in sexual intercourse without consent from other party
        + Keep clothing, don’t shower to preserve evidence
        + Go to hospital as soon as possible
        + Rape culture: societies where rape is commonplace so it becomes regarded as a trivial matter
  + Bigotry: intolerance of other groups
  + Bullying: intention to hurt someone, usually targeted for differences
    - Ignore bully, report bully, stay calm, self advocacy, have confidence
    - Bystander: a person who witnesses bullying and does nothing
    - Upstander: person who witnesses bullying and intervenes to de escalate it
    - Cyberbullying occurs online
  + Hazing: risky behaviors someone has to endure to remain in a group
  + Gossiping: saying something to damage someone’s reputation
  + Rejection: refusal to acknowledge someone
  + Relational aggression: ask someone to harm another’s relationship
  + Teasing: to upset someone you don’t like
  + Record evidence log, tell the person to stop, report person
  + Can lead to victim having trust issues
  + Don’t make a comment that you would be afraid of getting in trouble if someone important heard it.
  + Don’t join in on the bully's actions, try to step up and diffuse situation if not dangerous, help victim
* Relationships
  + Healthy dating relationships have commitment, individuality, balance, communication, support, love, intimacy, safety
  + Unhealthy dating relationships have arguments, limited communication, violence, jealousy, fights, pressure
* Consent
  + Mutual agreement between parties to be involved in an activity
  + Can only be given if old enough, has the mental capacity to make proper decisions (ex: not under the influence of drugs or alcohol, doesn’t have severe mental disability) and there’s no pressure