

Module 8 Worksheet

Multiple Choice

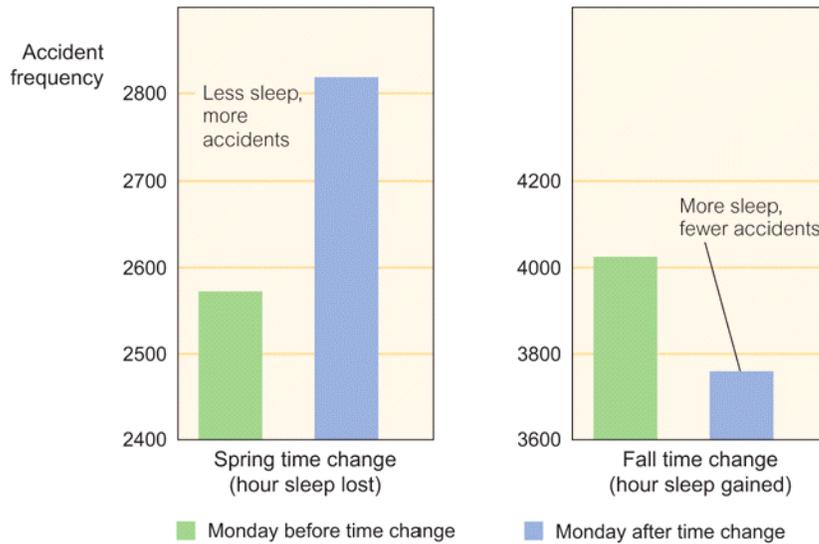
Identify the choice that best completes the statement or answers the question.

- _____ 1. Psychologists define consciousness as:
- a period when your muscles are relaxed but other body systems are active.
 - how aware we are of our environment and ourselves.
 - periodic physiological fluctuations.
 - a period characterized by slow delta waves.
- _____ 2. Biological rhythms are:
- an awareness of yourself and your environment.
 - periodic physiological fluctuations that affect the body.
 - repeated awakenings during the night where a person has difficulty breathing.
 - characterized by slow delta waves as recorded on an EEG.
- _____ 3. Circadian rhythm refers to:
- a pattern of biological functioning that occurs on a roughly 24-hour cycle.
 - the cycle of five distinct stages that we experience during a normal night's sleep.
 - the experience of jet lag following an extensive transoceanic flight.
 - the pattern of emotional ups and downs we routinely experience.
- _____ 4. Ultradian rhythms occur:
- more than once a day.
 - once per hour.
 - once per month.
 - over an entire year.
- _____ 5. Infradian rhythm refers to:
- cycles affected by sunrise and sunset.
 - cycles occurring less than once per day.
 - temperature cycles of the body.
 - the ups and downs over the course of a month.
- _____ 6. Traffic accident rates have been found to _____ after the spring change to daylight savings time and to _____ after the fall change back to standard time.
- decrease; decrease
 - decrease; increase
 - increase; decrease
 - increase; increase

- _____ 7. Most adolescents need about _____ hours of sleep per night.
- 12
 - 4
 - 6
 - 9
- _____ 8. Which of the following monitors light levels in controlling your 24-hour sleep rhythm?
- cortex
 - hippocampus
 - cebellum
 - hypothalamus
- _____ 9. The area of the brain most responsible for sleep cycles is the:
- brainstem.
 - cerebral cortex.
 - hippocampus.
 - hypothalamus.
- _____ 10. Which of the following hormones helps regulate the sleep/wake cycle?
- adrenaline
 - estrogen
 - melatonin
 - testosterone
- _____ 11. In the middle of biology class, Abe began staring out the window, lost in thought about his weekend plans, and was oblivious to everything around him when Ms. Bendick called his name. A psychologist could say that Abe was not conscious when he was staring out the window because Abe was
- unable to receive any neural activity from the rest of this body.
 - deliberately choosing to ignore his teacher.
 - not aware of himself and his environment.
 - actually fast asleep.
- _____ 12. Chuck heard a commercial for a “biorhythm chart” that was supposed to predict his good and bad days as well as his illnesses and accidents. Before pulling out his credit card to purchase one, Chuck should be reminded that:
- biorhythm charts are a good example of a pseudoscientific claim.
 - horoscopes are a more effective predictive tool and are free online.
 - humans do not have predictable naturally occurring rhythms.
 - the only biological rhythms that can be charted are infradian.

- _____ 13. Frenchman Michel Siffre spent 2 months living in a cave with no exposure to outside light and no way to measure the time of day. Researchers studying his sleep patterns found that his “day” varied from 18 to 52 hours. Because he was not exposed to natural light:
- his circadian rhythm was thrown off balance.
 - he most likely suffered from sleep apnea.
 - the infradian rhythms that determine his wakefulness were disrupted.
 - his sleep patterns were affected as he likely experienced an increase in REM sleep.
- _____ 14. Researchers have found no gender differences in mood. Men and women report the same number of actual mood swings each month, although women recalled having more mood swings. This finding:
- questions whether a women's menstrual cycle is an infradian cycle.
 - suggests that premenstrual syndrome is a nonexistent disorder.
 - supports the inclusion of premenstrual syndrome into the book used by health care officials to diagnose illness.
 - suggests that survey data is always unreliable and biased.
- _____ 15. Sleep-deprived Kristen becomes ill every quarter, right after finals week. Which of the following best explains why this occurs?
- decreases in cortisol have contributed to her poor health
 - melatonin levels are affected by stress
 - levels of the hormones necessary for proper immune system functioning have decreased
 - her infradian rhythms have been thrown off by changes in her daily schedule
- _____ 16. Which of the following problems might be traced back to sleep deprivation?
- baldness
 - catching the flu
 - Parkinson's disease
 - schizophrenia
- _____ 17. If you compared the amount of sleep you get with the amount your grandfather got when he was a teenager, what are you likely to find?
- Sleep wasn't considered as essential in the past as it is now.
 - Teenagers currently get more sleep than they did in the past.
 - You get more sleep than your grandfather did, because of his greater responsibilities.
 - Your grandfather got more sleep on average than you do when he was an adolescent.
- _____ 18. Sleeping until noon or 1 PM on the weekend is an indication of:
- sleep disorder.
 - insomnia.
 - sleep debt.
 - ultradian rhythm.

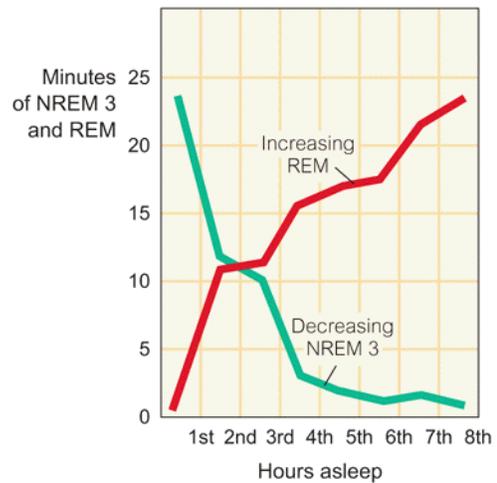
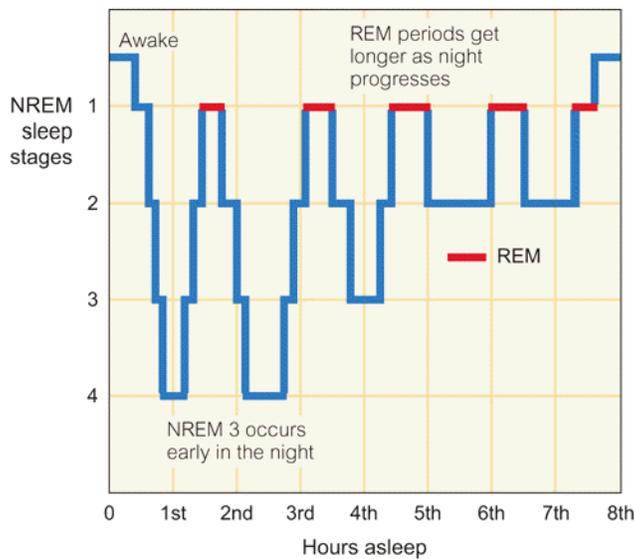
- _____ 19. Refer to the accompanying figure. How does daylight savings time affect the frequency of traffic accidents?



- No significant differences in the frequency of car accidents exist between spring and fall time changes.
 - Overall more accidents occur in the spring than in the fall.
 - When drivers received one less hour of sleep in the spring, accident frequency increased significantly.
 - Gaining one hour of sleep in the fall increased the frequency of driver accidents.
- _____ 20. Parents, students, and school officials are meeting to discuss changing the school bell schedule. As a student of psychology, what argument are you most likely to make in favor of beginning school later in the day?
- Sleep deprivation increases levels of the stress hormone estrogen, which is linked to brain cells responsible for wakefulness.
 - Sleep deprivation suppresses the immune system, leading to more school absences due to illness.
 - According to Dement, a large sleep debt is typical during adolescence.
 - Adolescents can safely build up a moderate level of sleep debt as long as they are allowed to sleep late on weekends.
- _____ 21. For the past week, Marian has stayed up late finishing her 10-page term paper. Depriving herself of sleep may result in:
- permanently changing her body's ultradian rhythms.
 - making it more difficult for her to concentrate the next day.
 - greater focus and attention the next day due to hormonal changes.
 - increased levels of melatonin levels for the next few days.

- _____ 22. Braxton flew from California to New York. The next morning he felt tired when his alarm rang at 8 AM. Which of the following best explains his experience?
- Braxton's melatonin levels were elevated.
 - Braxton's infradian rhythms were thrown off by his travel.
 - It is likely that Braxton suffers from apnea that disrupts his sleep patterns.
 - According to his body's internal clock it is still 5 AM.
- _____ 23. Ethan works stocking shelves at the local grocery store. On his days off, he switches to his normal sleep schedule. Ethan feels constantly tired and finds himself falling asleep when he is not supposed to. Which of the following is most likely the cause of Ethan's increased sleepiness?
- Ethan's circadian rhythm is disrupted by the sleep cycle required by his shift work.
 - Ethan must suffer from narcolepsy.
 - Sleep apnea is leading to a disruption of his sleep cycle causing him to feel sleepy all of the time.
 - Ethan's REM sleep has been disrupted and he is trying to make up his REM sleep by spending more time asleep.
- _____ 24. Which of the following psychological perspectives is most likely to argue that we sleep at night because it maximizes our safety and survival?
- evolutionary
 - social-cultural
 - psychodynamic
 - humanism
- _____ 25. If you pull an all-nighter studying for a test, the restorative theory of sleep would predict:
- the melatonin level in your body would rise.
 - you will be slightly more alert and awake because of the stress of sleep deprivation.
 - your body did not get a chance to recuperate physically.
 - your hypothalamus would decrease slightly in size.
- _____ 26. The brain waves you have during REM sleep are most similar to the ones you have when you are:
- awake.
 - in NREM 1.
 - in NREM 2.
 - in NREM 3.
- _____ 27. Alex fell asleep in geometry class. When her teacher called her name, she jumped to attention. Even though she had been asleep, she really didn't feel like she had been. Which sleep stage was Alex in when awakened?
- REM
 - NREM 1
 - NREM 2
 - NREM 3

- _____ 28. Dr. Kendall is observing the EEG of a sleeping research participant. The readout indicates slower wave sleep, alternating with faster brain waves, much like those of someone relaxed yet awake. Based on this pattern the participant is most likely:
- in the last four hours of his 8-to-9 hour sleep.
 - just moved from wakefulness to NREM 1 sleep.
 - alternating between consciousness and unconsciousness.
 - in the first four hours of his 8-to-9 hour sleep.
- _____ 29. Louis is looking over an EEG tracing of a typical night's sleep. Which of the following patterns is he likely to notice?
- That the time spent in REM sleep rapidly decreases after the first cycle.
 - That the last four hours of the night's sleep is spent alternating between NREM 1 and REM.
 - That NREM 3 and NREM 4 drop out of the cycle and REM sleep increases.
 - That 25% of a night's sleep is spent in NREM stages.
- _____ 30. During a typical night's sleep of 8 to 9 hours, Betty can predict that her brain will cycle through the REM stage _____ times.



- 1 – 2
 - 2 – 3
 - 3 – 4
 - 4 – 5
- _____ 31. Your sister says that she never dreams. Your psychology teacher taught you that everyone dreams every night. How can you best prove to your sister that she really does dream?
- Have your sister read your psychology textbook
 - Wait until she has been asleep for 90 minutes then wake her.
 - Wake her shortly after she enters NREM 1 sleep.
 - Wait until she is sleepwalking, wake her, and ask her what she is dreaming about.

- _____ 32. While May is asleep her eyes are darting quickly under her closed lids and her breathing and pulse are fast and irregular. May is most likely:
- dreaming vividly.
 - sleepwalking.
 - experiencing slow wave sleep.
 - easy to wake up.
- _____ 33. During a sleep study, researchers placed an electrode measuring muscle tension on the chins of participants. During REM sleep the EEG showed a flat line. Which of the following is the best explanation for this phenomenon?
- EEGs only measure brain waves not motor messages so the researchers expect to see a flat line.
 - The EEGs are correctly showing the slow waves characteristic of REM sleep.
 - Participants are physically active during this stage and are very difficult to awaken.
 - The brainstem blocks messages from the motor cortex, which leaves you temporarily paralyzed during REM sleep.
- _____ 34. Researchers discovered that the pituitary gland secretes growth hormones during the NREM 3 and NREM 4 stages of the sleep cycle. This finding supports which of the following theories?
- information processing
 - physiological function
 - activation synthesis
 - cognitive development
- _____ 35. Evidence showing that people who spend more time in REM sleep perform better on memory tests is evidence for which of the following dream theories?
- activation synthesis
 - information processing
 - paradoxical sleep
 - wish fulfillment
- _____ 36. Elsa had a nightmare about being trapped in a box. She wondered if her dream might mean that she is feeling trapped at a job she dislikes. An activation synthesis theorist might caution her from drawing that conclusion from her dream because:
- dreams provide periodic stimulation for our brains, they do not have symbolic meaning.
 - dreaming is nothing more than a reflection of normal cognitive development.
 - dreams do not have meaning, they are the brains attempt to interpret random neural signals during sleep.
 - REM sleep facilitates memory storage, dreams do not have symbolic meaning.

- _____ 37. Dr. Cowan believes that dreams reflect what we've learned and what we know. Dr. Cowan most likely supports which of the following dream theories?
- wish fulfillment
 - information processing
 - activation synthesis
 - cognitive development
- _____ 38. Research has demonstrated that nearly all animals show measurable REM periods while hooked to EEGs. This finding supports the idea that:
- REM sleep is very different from NREM sleep.
 - NREM sleep is not as important as REM sleep.
 - there is a biological need for REM sleep.
 - that REM sleep is an ultradian rhythm.
- _____ 39. Since Margie arrived home with her newborn she has gotten very little sleep. Based on psychological research, with such sleep deprivation what can we predict when Margie is finally able to sleep through the night?
- Margie will spend considerably more time in Stage 2 during her time asleep.
 - Margie will sleep more deeply and experience fewer dreams than she would normally.
 - Margie will not dream at all during her night's sleep.
 - Margie will dive straight into REM sleep rather than follow a normal cycle.
- _____ 40. Researchers have found that fish do not experience REM sleep. Why does this finding support the information-processing model of why we dream?
- Fish are governed more by instinct and less by learning.
 - Fish do not need the periodic stimulation that REM sleep provides.
 - Fish lack a cerebral cortex thus they do not have an internal mechanism to interpret random neural firing.
 - Fish has a short maturation process and dreams reflect brain development.
- _____ 41. Mr. Oates always sleeps restlessly, snorting and gasping throughout the night. It is most likely that Mr. Oates suffers from:
- insomnia.
 - narcolepsy.
 - night terrors.
 - sleep apnea.
- _____ 42. During a heated argument with his teenage daughter, Mr. Reid suddenly lapsed into a state of REM sleep. Mr. Reid apparently suffers from:
- insomnia.
 - narcolepsy.
 - REM rebound.
 - sleep apnea.

- _____ 43. Your 8-year-old brother was caught sleepwalking right out the front door! Your mother wants to wake him up and find out what type of dream he must have had to make him behave that way. How is your mother wrong?
- Sleepwalking does not occur during REM sleep because you are temporarily paralyzed during this dreaming stage.
 - Your little brother was most likely in stage NREM2 when most sleepwalking occurs and not likely dreaming.
 - Somnambulism does not occur in children of this young age.
 - It is dangerous to awaken someone who is sleepwalking.
- _____ 44. Nightmares are different from night terrors in that:
- only children experience nightmares.
 - nightmares occur in REM, night terrors in stage NREM 3.
 - you may have difficulty remembering a nightmare, but not a night terror.
 - during a nightmare you appear awake and terrified, but are actually sound asleep.
- _____ 45. Shortly after going to sleep, Maria has the sensation that she is falling and feels her legs jerk as she awakens. What most likely has occurred?
- a sleep attack
 - myoclonus
 - somnambulism
 - a night terror
- _____ 46. At 1:00 AM Luis gets out of bed and begins to sleepwalk. An EEG of brain activity is most likely to indicate the presence of:
- brain waves similar to someone awake and relaxed.
 - slow waves, less than one cycle per second.
 - REM sleep.
 - sudden bursts of electrical activity.
- _____ 47. Compared with adults, children are _____ to experience night terrors.
- less likely
 - expected
 - more likely
 - not likely
- _____ 48. An EEG, or electroencephalograph, measures:
- activation-synthesis.
 - brain waves.
 - infradian rhythms.
 - melatonin levels.

- _____ 49. Sigmund Freud developed one of the earliest dream theories. He suggested that dreams:
- a. were the key to understanding our inner conflicts.
 - b. reflected ancient archetypal symbols from our collective unconsciousness.
 - c. served an important memory-related function by consolidating new information.
 - d. are the mind's attempt to make sense out of random neural firing.
- _____ 50. Somnambulism is most likely to occur during:
- a. NREM 1 sleep.
 - b. NREM 2 sleep.
 - c. NREM 3 sleep.
 - d. REM.