

Windsor Hockey Skills Academy

Assignment: How much Sleep do I Need?

Value: 20 marks

Curricular Competencies and Content

It is expected that students will:

- (Grade 8 and 9) know potential short and long term consequences of health decisions, including those involving sleep routines

Read the following article then answers the questions that follow. Taken from the following websites:

www.sleepeducation.net.au/Docs/Adolescent's%20Sleep%20Facts%20Sheet.pdf

<http://kidshealth.org/en/teens/how-much-sleep.html>

Part A: Introduction

Sleep is important as it plays a significant role in the proper functioning of all body systems. Sleep is important for physical and mental health and without it, all body systems that are involved in the physical or mental health, do not function well. Complete sleep deprivation for a prolonged period of time can be fatal.

Part B: Non-REM and REM Sleep

Sleep is important for the body to rest and repair itself and its systems. This happens in two stages: Non-Rapid Eye Movement (Non-REM) Sleep and Rapid Eye Movement (REM) Sleep.

Non-REM Sleep occurs in four stages and is vital to get the body systems back to being rested. This process is called homeostasis. For example, when someone is tired, his or her communication and immune system decreased in efficiency. Therefore, they are more likely to become sick and perform badly. Non-REM sleep allows for these things to be repaired back to normal after each day. A growing hormone is also produced during Non-REM sleep, which causes growth and development in youth.

REM Sleep allows us to dream, and studies have shown that dreaming helps with learning. REM sleep is thought to be involved in the process of storing memories, learning, and balancing mood, although the exact mechanisms are not well understood.

Part C: Teenagers and Sleep

Most teens need about 8.5 to more than 9 hours of sleep each night. However, most teenagers around the world get between 7 to 8 hours of sleep per night, so most teenagers are in "sleep debt." Getting the right amount of sleep is essential for anyone who wants to do well on tests, play sports without stumbling or possible injury, or enjoy any activity that involves concentration. Unfortunately, many teens do not get enough sleep

Until recently, teenagers were often criticized for staying up late, oversleeping for school, and falling asleep in class. But recent studies show that adolescent sleep patterns differ from those of adults or young children. Experts say that during the teen years, the circadian rhythm (sort of like an internal biological clock) is temporarily reset, telling a person to fall asleep later and wake up later. This change might be due to the fact that the brain hormone melatonin is produced later at night for teenagers than it is for adults or younger children. This can make it harder for teens to fall asleep easily.

These changes in circadian rhythm coincide with a busy time in life. For most teenagers, the pressure to do well at school is more intense than when they were in elementary school. Academic demands become greater

with each grade. Teenagers also have other demands on their time: sports and other extra curricular activities, part-time jobs, and family commitments also put pressure on an adolescent's time.

Early start times in some school also might play a role in lost sleep. Teens who fall asleep after midnight may still have to get up early for school, meaning that they might squeeze in only 6 or 7 hours of sleep a night. A few hours of missed sleep a night may not seem like a big deal, but it can create a noticeable sleep deficit over time.

Part D: Ways to Address "Sleep Debt"

Adolescents need to be mindful of how much sleep they need and how much sleep they are actually getting.

Below is a list of preventative measures that may help adolescences improve their sleep times and habits.

1. Plan sleep adequately on school nights and on weekends. Keep a regular sleep time during the week as well as on the weekend.
2. Avoid sleeping in on weekends. This will only make the body less tired at night, which will again cause adolescence to stay up later, resulting in more hours of lost sleep.
3. Take short naps (20 minutes) during the afternoon. (to provide the body with enough energy to get through the remainder of the day.
4. Adolescence should practice a regular and relaxing routine that they practice before bed each night, to help them fall asleep faster.
5. Avoid caffeine before bed.
6. Avoid playing video games or going on the computer straight before going to sleep as these activities keep the brain stimulated.
7. Exercising every single day, but not straight before bed, will also help adolescence prepare for a good sleep.

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Name: _____ (First and last)
Block: _____
Date: _____

Curricular Competencies and Content

It is expected that students will:

- (Grade 8 and 9) know potential short and long term consequences of health decisions, including those involving sleep routines

Read the article "How Much Sleep do I Need," before answering the questions below (in pen) in the space provided.

Part A: Introduction

Complete each of the sentences from the Introduction with a word or a few words in the space below. (1 mark each)

1. Sleep is important as it plays a significant roll in the proper functioning of all _____.
2. Complete _____ for a prolonged period of time can be fatal.

Part B: Non-REM and REM Sleep

3. According to the article, which two body systems are repaired during Non-REM sleep?

1. _____ (1 mark) 2. _____ (1 mark)

4. Describe something that occurs during REM sleep. (2 marks)

Part C: Teenagers and Sleep

5. According to the article, about how many hours of sleep per night do teenagers require? (2 marks)

6. According to the article, what have recent studies shown regarding adolescent sleep patterns? (2 marks)

7. According to the article, what is the circadian rhythm? (2 marks)

8. According to the article, the body's circadian rhythm is reset during the teenage years. What happens as a result of this reset? (2 marks)

9. According to the article, what is melatonin? (1 mark)

10. According to the article, when does the adolescent body produce melatonin? (1 mark)

11. Describe the connection, mentioned in the article, between the production of melatonin and problems teenagers have falling asleep. (2 marks)

Part D: Ways to Address "Sleep Debt"

12. List the four preventative measures mentioned in the article that you believe would best help YOU manage your sleep. (2 marks)

1.

2.

3.

4.
