

# Sleep and your brain.

Today you'll learn more about sleep and the brain.

- Work with a partner. What do you already know about sleep and the brain?

Do you want to do the rest of this lesson alone or with your partner?

There is a small part of the brain called the hippocampus. (Actually, there are two of them). The hippocampus helps turn short-term memories into long-term memories. That happens when you sleep. If you don't get enough sleep, your short-term memories don't have a chance to become long-term. That's why when you don't sleep much during "test week" you forget everything you studied about.

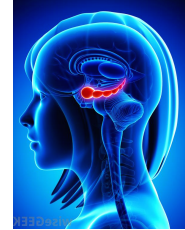


Illustration courtesy wisegeek.com

*Your hippocampus is more important for your learning than your university campus!*

Look at the "infographic" at <http://tinyurl.com/sleep-brain1>

You will probably need a dictionary for this lesson.

1. Read the information in the purple box (Sleep is as important as eating).

Find the word "hippocampus."

What two things are the hippocampus involved in?

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2. Sleeping is as important as eating. Which of these does sleeping do?

Check (✓) the ones mentioned.

- Keeping you healthy.
- Balancing your diet.
- Making you popular.
- Giving you energy.

3. Read the green box (How much sleep you need).

"Sleep-deprived" means "not getting enough sleep."

"Impaired" means "damaged."

How old are you? \_\_\_\_\_

According to the chart, how many hours of sleep do you need? \_\_\_\_\_

Are you short of sleep? How much more should you get? \_\_\_\_\_

4. Read the yellow/brown box (Sleep debt).

What are some dangers of often not getting enough sleep.

What is your "sleep debt" for the past 7 days? \_\_\_\_\_

(If you don't remember exactly, multiple your answer to the last answer in part 3 x 7)

5. Read the next purple box (Sleep deprivation research).

The students slept 4 hours for 6 nights. Check (✓) the problems mentioned.

- anger problems     blood pressure     body couldn't fight flu  
 danger of diabetes     stress     sadness/depression

6. Read the next box (REM & non-REM sleep).

True or False?

During REM sleep

- \_\_\_ eyes move a lot.  
\_\_\_ arm and leg muscles move a lot  
\_\_\_ you get more energy for the next day  
\_\_\_ you have dreams

### How can you sleep better?

Now go to this page: <http://tinyurl.com/sleep-brain2>

Scroll down to the blue and black infographic. Click on it to make it bigger.  
Read it quickly.

7. Which things do you usually do now? Check (✓) them.

- Turn off devices with screens (cell phone, computer, TV) 30 minutes before you sleep.  
 Don't eat or drink just before bed.  
Some experts say, "No caffeine after 3 p.m."  
 Go to bed 8 hours before you need to get up.  
 Don't do work in bed.  
 Meditate to relax.  
 Keep a journal of good things from your day.  
 Read a book for fun.  
 Make healthy "before bed" habits (take a bath, brush your teeth, etc.)  
 Make a "to-do" list for tomorrow.

### 8. Promise to yourself.

Which of the things in #7 are you going to try? Circle them.



Have a good sleep tonight!

This lesson is designed to be done on-line with a fairly large screen (like in a computer lab). If that isn't practical, you can print out the infographic. The first graphic will take about five sheets of paper. Have students work in pairs or small groups to assemble it and do the tasksheet.

Note: I paraphrased some of the information to make it more accessible for language learners. Also, I left out the part on the stages of sleep since I didn't think there is much folks can do about that. Wanted to get them on to the "how to sleep better" before they run out of time/energy.

Here are the actual URLs. Went with tinyurls because thought it would be impossible to type the longs ones, especially the first one, accurately.

<https://blog.hubspot.com/marketing/science-of-sleep#sm.00001kj6xivy8refqy66sqscmqc>

<http://tech.co/better-sleep-establish-sleep-ritual-infographic-2015-04>

**Answer Key Below**

# Sleep and your brain. Answer Key

Today you'll learn more about sleep and the brain.

- Work with a partner. What do you already know about sleep and the brain?

Do you want to do the rest of this lesson alone or with your partner?

There is a small part of the brain called the hippocampus. (Actually, there are two of them). The hippocampus helps turn short-term memories into long-term memories. That happens when you sleep. If you don't get enough sleep, your short-term memories don't have a chance to become long-term. That's why when you don't sleep much during "test week" you forget everything you studied about.

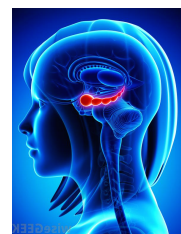


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You will probably need a dictionary for this lesson.

1. Read the information in the purple box (Sleep is as important as eating).

Find the word "hippocampus."

What two things are the hippocampus involved in?

Memory creation  
consolidation (this is also of memory)

2. Sleeping is as important as eating. Which of these does sleeping do?  
Check (✓) the ones mentioned.

- Keeping you healthy. (T)
- Balancing your diet. (T)
- Making you popular. (F)
- Giving you energy. (T)

3. Read the green box (How much sleep you need).

(Students' answers will vary)

"Sleep-deprived" means "not getting enough sleep."

"Impaired" means "damaged."

How old are you? \_\_\_\_\_ (Students' answers will vary)

According to the chart, how many hours of sleep do you need? \_\_\_\_\_

Are you short of sleep? How much more should you get? \_\_\_\_\_

4. Read the yellow/brown box (Sleep debt).

What are some dangers of often not getting enough sleep.

obesity (gaining weight), heart disease, stroke, diabetes

What is your "sleep debt" for the past 7 days? \_\_\_\_\_ (will vary)

(If you don't remember exactly, multiple your answer to the last answer in part 3 x 7)

5. Read the next purple box (Sleep deprivation research).

The students slept 4 hours for 6 nights. Check (✓) the problems mentioned.

- anger problems     blood pressure ✓  body couldn't fight flu  
 danger of diabetes ✓  stress                       sadness/depression

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True or False?

During REM sleep

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8. **Promise to yourself.** (Students' answers will vary)

Which of the things in #7 are you going to try? Circle them.



Have a good sleep tonight!

The infographics are © the pages on which they appear.

This tasksheet by Marc Helgesen

[www.HelgesenHandouts.weebly.com](http://www.HelgesenHandouts.weebly.com)

It may be copied for classroom use.