

Name: \_\_\_\_\_

# What's the Deal with Sleep?

By Lydia Lukidis

You go to bed at night, close your eyes, and drift off to sleep. Have you ever wondered how exactly sleep works? Plus, where do dreams come from?

Let's start with the basics. When you fall asleep, you go through the four stages of the sleep cycle. We'll explore what happens during each of these stages.



First up is Stage 1. This is when you feel yourself becoming drowsy. Your muscles begin to relax and your brain activity slows down. Your eye movements are slow during Stage 1. It lasts several minutes and you can be woken up easily.

Next is Stage 2, when your sleep becomes a bit deeper. You won't wake up as easily. The slow eye movements continue and your brain waves slow down even more. Your body temperature goes down and your heart rate slows down.

Stage 3 is known as deep sleep. It's more difficult for you to be woken up. And although you are sleeping deeply, this is when sleepwalking or sleep talking occurs. So all those sleepwalkers out there may not actually remember doing anything strange in their sleep the next day.

Then finally, you move into REM. That stands for rapid eye movement. During the REM stage, your eyes move quickly beneath your closed eyelids. This is caused by certain brain activity. You may have vivid dreams during this stage. Your brain waves are more active than in Stages 2 and 3. They're similar to when you're awake. It's easier for someone to wake you up, but you may feel groggy or sleepy.

Once your REM phase is over, the cycle starts all over again with Stage 1.

A complete sleep cycle lasts between 90 and 110 minutes. Stages 1 and 2 are considered light sleep, while Stage 3 is deep sleep. You'll go through about four or five of these cycles each night, depending on how long you sleep.

Now, what's the deal with dreams? The scientific study of dreams is called *oneirology*. Nobody knows exactly why we dream. It is believed that dreaming helps us process emotions. Things that happen during the day often enter our dreams. We spend about 2 hours a night dreaming. Every single one of us dreams. Some of us dream in color, while others dream in black and white. Although we can dream during each stage of sleep, the most vivid dreams occur during REM sleep.

Sleep is very important. In fact, you spend about a third of your time doing it! That's a good thing. Quality sleep is as important as food and water. Without it, we wouldn't be able to function properly. We wouldn't be able to learn or create new memories. It would also be harder to concentrate and respond quickly. School-age children and teenagers need about 9 ½ hours of sleep each night. Most adults need between 7 and 9 hours of sleep each night.

Another funny habit we have is that we often forget our dreams. So the next time you fall asleep, keep a notebook and pen beside your bed. If you have any memories of your dreams when you wake up, write them down right away. Some might make funny stories!

## About the Author



Lydia Lukidis is a children's author with a multi-disciplinary background that spans the fields of literature, science, and theater. So far, she has over 40 books and eBooks published, as well as a dozen educational books. Her latest STEM books include [A Real Live Pet!](#) and [The Space Rock Mystery](#).

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1. Write the label **1**, **2**, **3**, or **REM** next to the correct description of **Stage 1**, **Stage 2**, **Stage 3**, and **REM** in the sleep cycle.



- \_\_\_\_\_ Your brain activity slows down, and you aren't woken up as easily. Your body temperature and heart rate fall.
- \_\_\_\_\_ Your eyes move quickly beneath your eyelids. You may have vivid dreams. Your brain waves are more active.
- \_\_\_\_\_ You begin to feel drowsy. Your muscles relax. You can still be woken up easily.
- \_\_\_\_\_ You enter deep sleep, and it's more difficult for you to be woken up. Some people may sleep walk or sleep talk.

2. Nobody knows exactly why we dream. According to the article, what is one reason scientists think we dream?

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3. Which of the following is **not** true about dreams?

- a. Some of us dream in color, while others dream in black and white.
- b. The average person spends about two hours per night dreaming.
- c. Dreams only occur during the REM stage of the sleep cycle.
- d. The most vivid dreams occur during REM sleep.

4. Based on the information in the article, identify **three benefits** of getting enough sleep.

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Match each vocabulary word from the reading passage with the correct definition.

\_\_\_\_\_ 1. drowsy

\_\_\_\_\_ 2. heart rate

\_\_\_\_\_ 3. rapid

\_\_\_\_\_ 4. vivid

\_\_\_\_\_ 5. oneirology

\_\_\_\_\_ 6. emotions

\_\_\_\_\_ 7. quality

\_\_\_\_\_ 8. concentrate

\_\_\_\_\_ 9. habit

\_\_\_\_\_ 10. cycle

a. producing realistic or clear images in your mind

b. the worth, value, or excellence of something

c. sleepy; tired

d. a routine pattern of behavior

e. focus your attention on a task or activity

f. a course of events that is repeated over and over again

g. the number of times your heart beats per minute

h. the scientific study of dreams

i. happening at a quick pace

j. feelings



# ANSWER KEY

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1. Write the label **1**, **2**, **3**, or **REM** next to the correct description of **Stage 1**, **Stage 2**, **Stage 3**, and **REM** in the sleep cycle.



**2** Your brain activity slows down, and you aren't woken up as easily. Your body temperature and heart rate fall.

**REM** Your eyes move quickly beneath your eyelids. You may have vivid dreams. Your brain waves are more active.

**1** You begin to feel drowsy. Your muscles relax. You can still be woken up easily.

**3** You enter deep sleep, and it's more difficult for you to be woken up. Some people may sleep walk or sleep talk.

2. Nobody knows exactly why we dream. According to the article, what is one reason scientists think we dream?

Scientists think we dream as a way of processing our emotions and things that happen during the day.

3. Which of the following is **not** true about dreams? **c**

**a.** Some of us dream in color, while others dream in black and white.

**b.** The average person spends about two hours per night dreaming.

**c. Dreams only occur during the REM stage of the sleep cycle.**

**d.** The most vivid dreams occur during REM sleep.

4. Based on the information in the article, identify **three benefits** of getting enough sleep.

Acceptable answers include: sleep helps you to function properly; sleep helps you to learn; sleep helps you to create new memories; sleep helps you concentrate; and sleep helps you respond quickly.

# ANSWER KEY

## What's the Deal with Sleep?

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Match each vocabulary word from the reading passage with the correct definition.

- |                         |   |
|-------------------------|---|
| <b>c</b> 1. drowsy      | <b>a.</b> producing realistic or clear images in your mind        |
| <b>g</b> 2. heart rate  | <b>b.</b> the worth, value, or excellence of something            |
| <b>i</b> 3. rapid       | <b>c.</b> sleepy; tired   |
| <b>a</b> 4. vivid       | <b>d.</b> a routine pattern of behavior                           |
| <b>h</b> 5. oneirology  | <b>e.</b> focus your attention on a task or activity              |
| <b>j</b> 6. emotions    | <b>f.</b> a course of events that is repeated over and over again |
| <b>b</b> 7. quality     | <b>g.</b> the number of times your heart beats per minute         |
| <b>e</b> 8. concentrate | <b>h.</b> the scientific study of dreams                          |
| <b>d</b> 9. habit       | <b>i.</b> happening at a quick pace                               |
| <b>f</b> 10. cycle      | <b>j.</b> feelings  |