

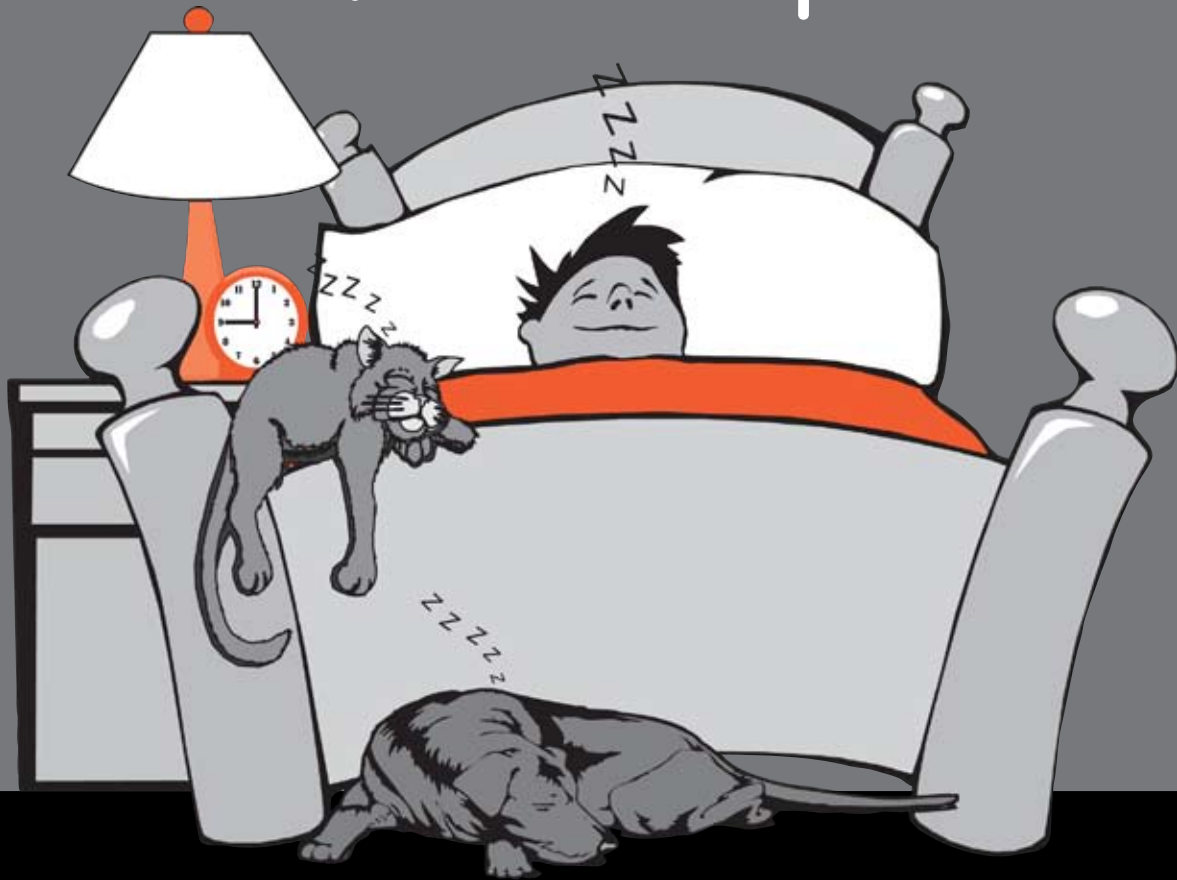
# PRIMARILY for U.S.\*

GRADES 2-3

\* Understanding Science

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## What is sleep?



Why do you need sleep?  
Why do all animals sleep?  
Do you sleep enough?

## What is sleep?

When you sleep, your brain works differently than when you are awake. There are two kinds of sleep, **REM Sleep** and **Quiet Sleep**. Both kinds are important for good health.

### In REM sleep

- Your eyes move
- You dream
- Most of your muscles do not move

### In Quiet Sleep

- Your eyes do not move
- You do not dream
- Your muscles move



In REM sleep, your eyes move back and forth while you dream.

A dog's eyeballs move under its eyelids as it dreams.

### A Sleep Cycle

When something happens over and over again in the same way, it is called a **cycle**.



At night, you start out in Quiet Sleep, then go into REM sleep, then back again to Quiet Sleep.

## What happens when you sleep?

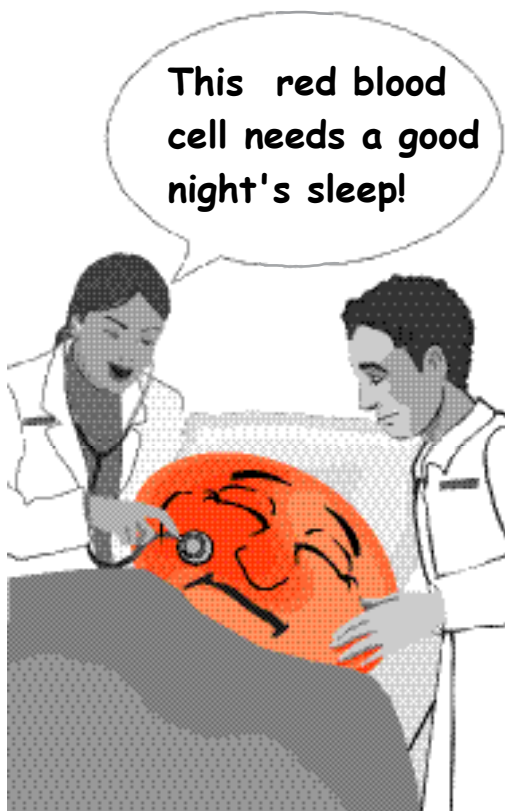
Your body is quiet, but your brain is working hard.



## Why Do Animals Sleep?

The body's cells need sleep to stay healthy.

When animals don't sleep enough, they start to forget things!





Animals sleep to save energy.



All animals sleep, but some animals sleep more than others.

Here are some animals and the number of hours they sleep in a 24-hour period.



Animal	Hours of Sleep a Day
 Giraffe	2
 Child	10
 Dog	10
 Squirrel	15
 Opossum	18
 Bat	20

Source: Seigel JW. Why We Sleep. Scientific American, Nov 2003, 92-97 and <http://faculty.washington.edu/chudler/chasleep.html>

Small mammals usually sleep longer each day than large mammals...



# Sleepy Numbers

*Time flies...*



September

October

November

December

January

February

March

April

May

June

July

August

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

Sunday

If you sleep 10 hours each night,  
you sleep \_\_\_\_\_ hours each week.

If you have 5 dreams each night,  
you have \_\_\_\_\_ dreams in a week.

Each day, dogs sleep \_\_\_\_\_ times  
as long as giraffes.

If you sleep 10 hours a night, you sleep 70 hours a week.  
If you have 5 dreams each night, you have 35 dreams in a week.  
Each day, dogs sleep 5 times as long as giraffes.

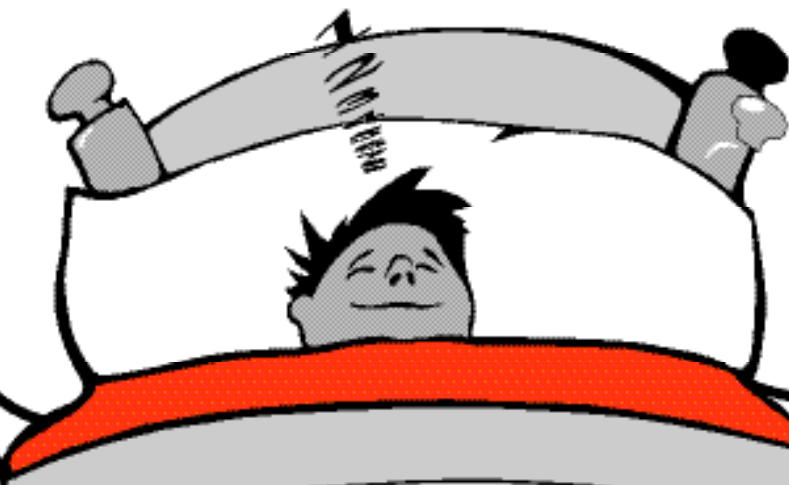
Answers:

Sunday

Monday

Tuesday

Wednesday



Thursday

Friday

Saturday

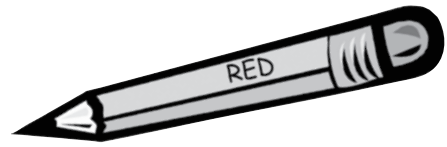
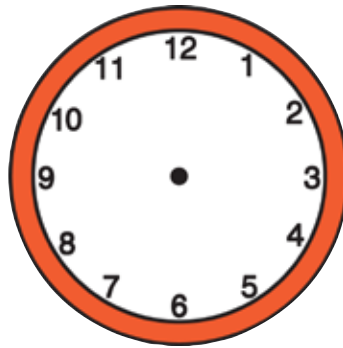
Sunday

# Do You Sleep Enough?

Children need to sleep at least 10 hours every night.  
How much do **you** sleep?



Use a blue pencil to mark the time you go to sleep.



Use a red pencil to mark the time you wake up.

Count the hours between the blue and red pencil marks to see how long you sleep!

Here are some things that help you sleep.

Bedtime at 8 PM



A dark, quiet room



Reading

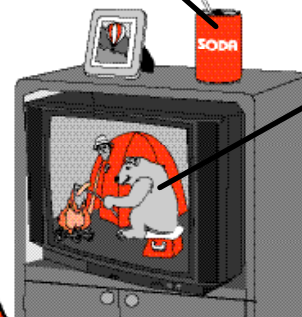
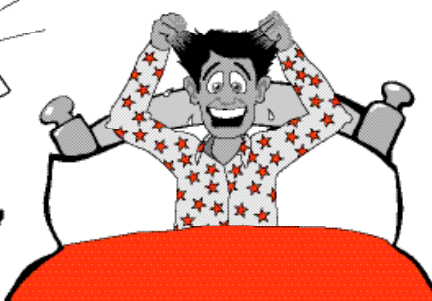
Here are some things that make it harder to sleep.

Bright light



Too late!

Drink with caffeine



TV on

This newsletter addresses QCC Grade 2 Science Standards 1, 2, 4; grade 3 Science Standards 12, 15; Grade 2 Language Arts Standards 15, 16, 18; Grade 3 Language Arts Standards 14, 17, 18.

Written by Linda Lögdberg. Layout, illustrations and graphics are by Sheila Ward. Source for sleep cycle illustration (inside center): <http://www.sleepforkids.org/html/cycles.html>.

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