First Learning Goal (Begin with the End in Mind): I will know how much sleep is optimal, and why and know what the different stages of the sleep cycle are.
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Adults seem to need an average of 8 hours sleep.
New borns and teens are experiencing high growth periods and need more sleep.

**How Much Sleep Do You Really Need?**

<table>
<thead>
<tr>
<th>Age</th>
<th>Sleep Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborns (0-2 months)</td>
<td>12-18 hours</td>
</tr>
<tr>
<td>Infants (3 to 11 months)</td>
<td>14 to 15 hours</td>
</tr>
<tr>
<td>Toddlers (1-3 years)</td>
<td>12 to 14 hours</td>
</tr>
<tr>
<td>Preschoolers (3-5 years)</td>
<td>11 to 13 hours</td>
</tr>
<tr>
<td>School-age children (5-10 years)</td>
<td>10 to 11 hours</td>
</tr>
<tr>
<td>Teens (10-17)</td>
<td>8.5-9.25 hours</td>
</tr>
<tr>
<td>Adults</td>
<td>7.5-9 hours</td>
</tr>
</tbody>
</table>

First Learning Goal (Begin with the End in Mind): I will know how much sleep is optimal, and why and know what the different stages of the sleep cycle are.
Sleep uses approximately 1/3 of our life, when we don’t get our sleep it has a negative impact.

Sleep replaces chemicals used while we are awake, we grow while we sleep, we repair damage.

Lack of sleep causes fatigue, less immunity to disease, hand tremors, irritability and inattention.

*What’s up with sleep?

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What stages do we go through while we sleep?

Awake - Non REM - REM
What is REM Sleep?

* It is an active period of sleep marked in humans by intense activity in the brain and rapid bursts of eye movements.

* REM > Rapid Eye Movement > people can see when you are dreaming > eyes move back and forth under lids.

* REM occurs during resurfacing phases.

* When researchers woke people during this phase they could remember their dreams.

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* they did an experiment
* they prevented people from experiencing this stage by waking them up regularly
* the findings? Play from 4:30 to 4:50
* the subjects became short-tempered and less able to concentrate.
* Other effects include depression, weight gain, immune system suppression and slower reaction times

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Electrodes attached to the scalp can record brainwaves, which helps us to know there are 4 stages of sleep we cycle through about every 90 minutes over and over again all night long.

In stage 1 we experience a light transitional sleep. This is where drowsiness and sleep begins.

In stage 2 a more stable sleep occurs. Chemicals produced in the brain, block the senses making it difficult to be woken.

Stage 3 is a deep sleep. A growth hormone is released during this stage. Most of stage three sleep occurs in the first third of the night.

Stage 4 is the REM sleep. REM sleep revitalizes the memory. In this stage; brain activity is very high and intense dreaming is likely to occur.

*We sleep in stages

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Stage 1 light sleep

Stage 2 deeper sleep

Stage 3 deeper again

Stage 4 deepest sleep (hard to wake)

Lighter sleep

Surface

Stage 1

Lighter sleep (gets longer)

Surface

Stage 2 deeper

Surface

Stage 3 deeper

Surface

Stage 4 deepest (gets shorter)

REM

REM

First Learning Goal (Begin with the End in Mind): I will know how much sleep is optimal, and why, and know what the different stages of the sleep cycle are.
*While we don’t all experience the varied states of consciousness, we do all sleep and we all dream.

* According to researchers our dreams vary in length depending on how long that particular REM cycle is.

* Most dreams are fairly ordinary.

* Some tend to be negative, it is common to dream about failure or being attacked or losing out.

Second Learning Goal (Begin with the End in Mind): I will know what stage of sleep we dream in, and know the difference between how cognitive psychologists and psychoanalysts explain the function of dreams.
Cognitive psychologists feel that dreams help us process our daily activities and emotions, and sort things out (we tend to sleep more after stressful days).

This makes sense if you think that many dreams are fairly ordinary.

Second Learning Goal (Begin with the End in Mind): I will know what stage of sleep we dream in, & know the difference between how cognitive psychologists & psychoanalysts explain the function of dreams.
Psychoanalysts believe dreams have hidden meaning that are key to understand our drives, fears and so on. *Freud* attributed the libidinal drive (life force) as the primary creator of dreams that a person’s wishes for. *Freud also felt that tapping into a person’s unconscious would allow a therapist to help a person resolve issues that may be bothering them, that they may not be aware of.  

**Second Learning Goal (Begin with the End in Mind):** I will know what stage of sleep we dream in, & know the difference between how cognitive psychologists & psychoanalysts explain the function of dreams.