Sleep

Why is sleep important?

- The amount of sleep we get affects our ability to concentrate and learn throughout the day.
- The more sleep we get the more energy we have to complete tasks.
- If we have had limited good quality sleep, this can have a negative effect on our mood and how we feel generally.
- Sleep is important to support our general health. More specifically, we need good quality sleep to help our bodies fight off illness and repair injuries.
- Sleep gives our brain a chance to make sense of the day and also gives our body the chance to fix injuries, fight off sickness and support grow

Sleep is very important for everyone, especially children and teenagers so they can continue their cognitive and physical development. When we don't get enough sleep this can often affect our mood and our ability to concentrate. Some common sleep difficulties include:

- Difficulty falling asleep due to worries or negative thoughts
- Difficulty falling asleep due to not being tired
- Waking up in the night and not being able to go back to sleep
- Poor sleep routines affecting sleep, this may be more common following school holidays
- Not feeling safe and wanting reassurance during the night

How much sleep do we need?

Most children between the ages of 5 and 12 get about 9.5 hours of sleep a night, whereas teenagers need around 8-10 hours of sleep each night to function at their best, the exact amount differs from person to person. Getting enough sleep is a common difficulty in teenagers. Here is the general guidance on how much sleep is recommended depending on age:

Age	No. of hours (including naps)
4-12 months	12-16 hours
1-2 years	11-14 hours
3-5 years	10-13 hours
6-12 years	9-12 hours
13-18 years	8-10 hours

The science of sleep

Circadian rhythm

Your circadian rhythm is thought of as your internal body clock. This internal clock moves between cycles of sleepiness and more awake periods at regular intervals throughout the 24 hour period of the day. Our circadian rhythm is helped along by changes from daylight to darkness and vice versa. When it is dark outside our bodies produce melatonin to help us sleep. When it is time to wake up/stay awake throughout the day and we are in an environment that encourages this (e.g. sunlight), our brain releases a different hormone called serotonin that encourages us to remain awake.

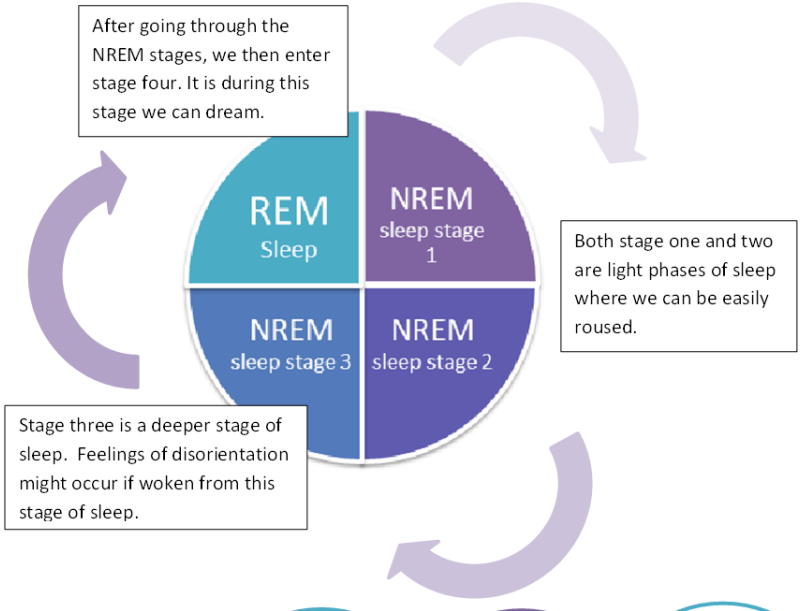
Bright room lighting, TVs, games consoles, mobiles, tablets and laptops all give off enough light to stop our bodies producing melatonin and can stop us from sleeping. Therefore, our environment and habits before bed (especially those involving screens) can affect our sleep greatly.

Our circadian rhythm works best when we have regular sleep habits, like going to bed and waking up in the morning around the same times (including weekends). When things get in the way, like jet lag or a sleepless night, our rhythms can be disrupted and in turn effecting us the next day.

Research suggests that teenagers' body clocks (or circadian rhythms) are different to Adults and Children's. A delay in teenager's rhythms means that they are programmed to stay up later and struggle to get up in the morning. Because of this and the fact that teenagers still need to get up early to go to school most days, often they are not getting the 8-10 hours recommended for their age.

Sleep Cycles

In addition to having internal body clocks, our bodies follow a cycle of different types of sleep during the night and also during longer naps. Our sleep cycles can be described as either rapid eye movement (REM) sleep or non-REM sleep (NREM). Whilst in REM sleep, our eyeballs flicker under our eyelids. REM sleep is often referred to as dream sleep. NREM is separated into: light sleep; deeper sleep; and deep sleep. When we are in light sleep we wake up more easily than when we are in deep sleep.



Sleep cycles are about 90 minutes. At the end of each cycle, we reach a point where we are partially awake. When this happens, if everything is as it was when we went to sleep it is likely we will continue to sleep. However, if anything has changed, like a TV being turned off after falling asleep, we are likely to wake up rather than continuing to sleep.