



Sleep Toolkit for five to 13 years

Guidance and support aimed at parents and carers, and those working with families with school aged children

Introduction – the importance of sleep

We all do it – but how much do you know about what happens when we sleep?

Sleep is essential for our bodies - a lack of sleep can be harmful and can cause difficulties with our physical and psychological wellbeing. Sleep is the way that our bodies process what has happened during the day and recharge our energy.

You might think we don't do anything when we are asleep but many parts of our brains are in fact more active than when we are awake.

Sleep is a state of reduced awareness that is relatively easy to reverse (unlike a coma or hibernation). Some awareness of the environment around us remains during sleep, particularly our responses to sound (for example, a mother will hear her baby crying but may not wake to the sound of cars passing outside).

In humans, sleep is usually associated with having our eyes closed and laying down – although not always!

A few symptoms of not getting enough sleep (sleep deprivation) are:

- Concentration difficulties
- Growth hormone issues
- Mental health issues
- Lowering of the immune system
- Hyperactivity
- Weight gain
- Behavioural issues
- Difficulty remembering things

Source:

Tham, E. K., Schneider, N., & Broekman, B. F. (2017). Infant sleep and its relation with cognition and growth: a narrative review. Nature and Science of Sleep, 9, 135–149.

Wolfson AR, Carskadon MA. Understanding adolescents' sleep patterns and school performance: a critical appraisal. Sleep Med Rev. 2003 Dec;7(6):491-506.

Cassoff J, Bhatti JA, Gruber R. The effect of sleep restriction on neurobehavioural functioning in normally developing children and adolescents: insights from the Attention, Behaviour and Sleep Laboratory. Pathol Biol (Paris). 2014 Oct; 62 (5):319-31.

Parents who are disturbed by their child's poor sleep patterns are also likely to suffer from sleep deprivation.

Who has produced this toolkit?

This toolkit has been produced in partnership by:

School Health Nursing,

Sirona Care and Health

Kings' Forest Primary School

King's Oak Academy Primary School

Off the Record

South Gloucestershire Council - Public Health & Wellbeing, Early Years, Educational Psychology,
Child and Adolescent Mental Health Service



The sleep cycle

At night time we experience different levels of sleep and we sleep in cycles. The stages of a sleep cycle are:

Non-Rapid Eye Movement (Non-REM)

Stage 1 – a very light sleep, where you will be easily woken. If you have ever tried tip toeing out of your child's bedroom and they've woken this is why – they were in a very light sleep.

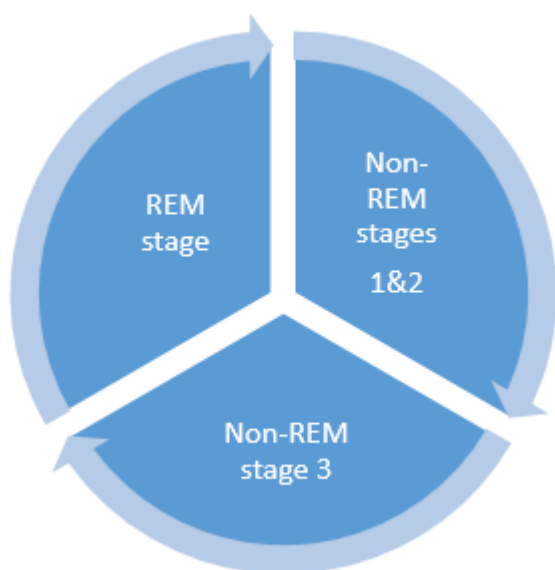
Stage 2 – still quite a light sleep but the body is preparing for the deep sleep that is about to come. Your child will be more relaxed now and if you are trying to sneak out of their bedroom this is a good time to make your exit!

Stage 3 – this is a very deep sleep. The body needs this sleep so that repair can take place. It will be difficult to wake your child when they are in this stage.

Rapid Eye Movement (REM stage)

Sleep then moves into a phase of Rapid Eye Movement (REM stage). REM stage sleep is when dreams occur. It is vital for mental and emotional development. Brains can become very active during REM sleep yet out bodies are relaxed.

Figure 1: Non-Rapid Eye Movement (Non-REM) and Rapid Eye Movement (REM) stages

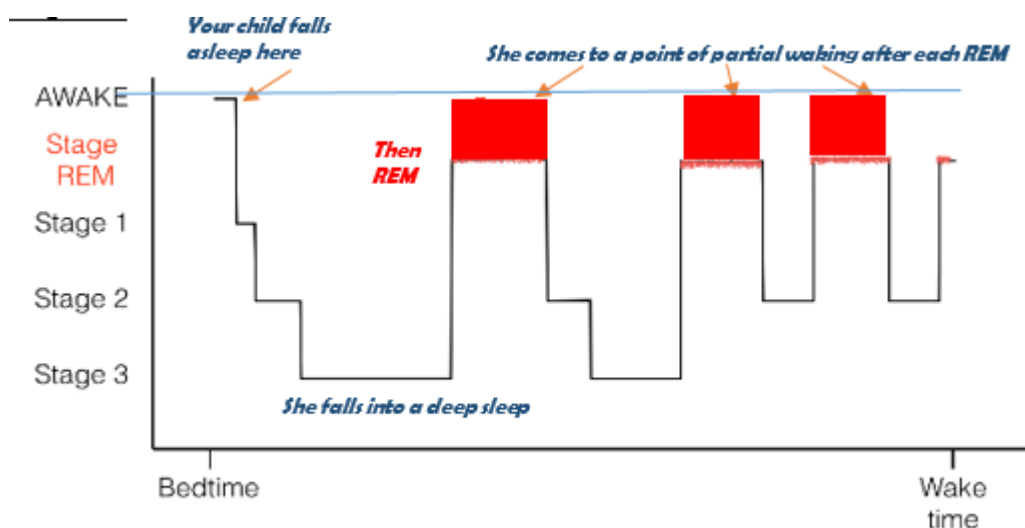


Each cycle usually lasts for around 90 minutes and is slightly shorter for infants (45-60 mins)

The sleep cycles occur throughout the night. We are usually in deep sleep towards the beginning of the night and lighter sleep in the early hours of the morning.

After each cycle we come to a point of partial waking (the red bars on figure 2). If everything is as it was when we fell asleep we may well just roll over and carry on sleeping as in figure 2:

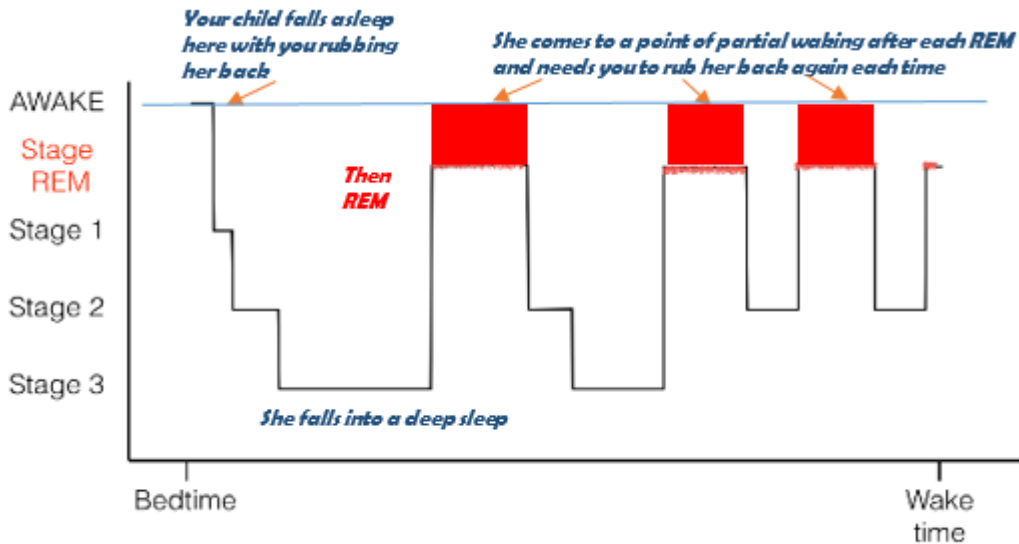
Figure 2



Source: Sleep Training, Southampton

If anything has changed however.....that's when we wake up, as described in figure 3:

Figure 3



Source: Sleep Training, Southampton

It is important for sleep conditions to remain the same throughout the night as connecting sleep cycles is about waking and feeling safe and secure enough to drift back off to sleep. This often happens when children are developmentally ready and have a secure environment. Infants often need parental input to fall asleep and connect their sleep cycles as they are not developmentally ready to 'self soothe'.

Circadian Rhythm, often called the 'body clock'

We all have a sleep-wake cycle known as the circadian rhythm or body clock which is regulated by light and dark. The rhythms take time to develop in new-borns and it is very normal for infants and young children to wake regularly during the night. By about 6 months most babies have a regular sleep-wake cycle. Putting children to bed at the same time each night and waking them up at the same time each morning, even at weekends, will help to enable a regular sleep-wake cycle. When the hour changes from winter time to summer time some children's sleep-wake cycle goes off track. A child's sleep-wake cycle can be reset by bringing bedtime forward by 15 minutes every three nights until the desired time is reached.

Melatonin

Melatonin is a hormone that occurs naturally in our body when it gets dark. It helps us sleep. It is a good idea to put your child to bed in a dark environment and dim lights in the run up to bedtime.

Melatonin production is negatively affected by screen activity, like watching a television/iPad or playing computer games. The light from the screen stops melatonin being produced. Avoiding these activities in the hour (or more) leading up to bedtime is a good idea to help the sleep cycle.

Some children and those with autistic spectrum disorder may produce less melatonin.

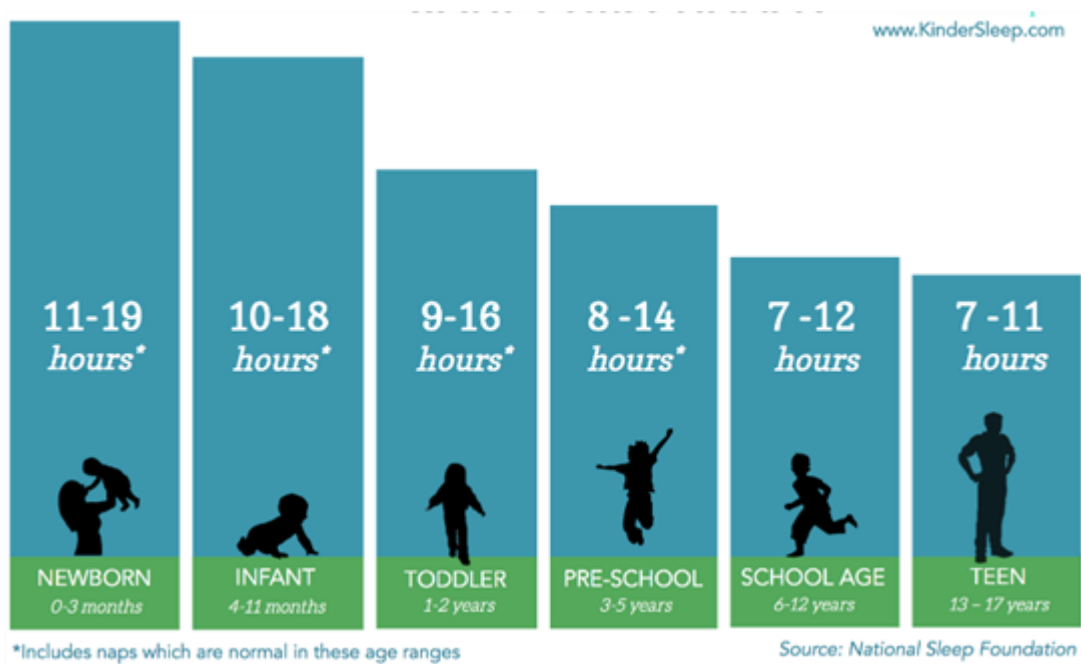
Source: *Sleep Health*

Foundation <https://sleepfoundation.org/sleep-topics/how-blue-light-affects-kids-sleep>

How much sleep is needed? Sleep duration

Sleep needs change as children get older and every human requires a different amount of sleep throughout their life. However, there is a recommended number of hours to aim for:

Figure 4



Research suggests that, in Western societies, many adults and some children and young people are under-sleeping by roughly one hour per night due to lifestyle changes. When accumulated over one week this adds up to a sleep deficit of about one full night.

Source: *Royal Society for Public Health (2016) Waking up to the Benefits of Sleep, University of Oxford*

Sleep routines, sometimes called 'sleep hygiene'

Daytime activities

What happens in the day can effect sleep: exercise improves sleep onset (how long it takes to fall asleep). Diet during the day can affect sleep. Caffeine blocks the sleep-wake regulation.

Sleep Environment

The sleep environment needs to be safe, a comfortable temperature, with space to lie down, low level of noise, low light or darkness and a lack of distractions.

Bedtime routines

Routines can teach children to associate a sequence of events e.g. upstairs, bath, brush teeth, PJs, to bed, story time etc. with bedtime and sleep.

What we know about children's and young people's sleep in South Gloucestershire

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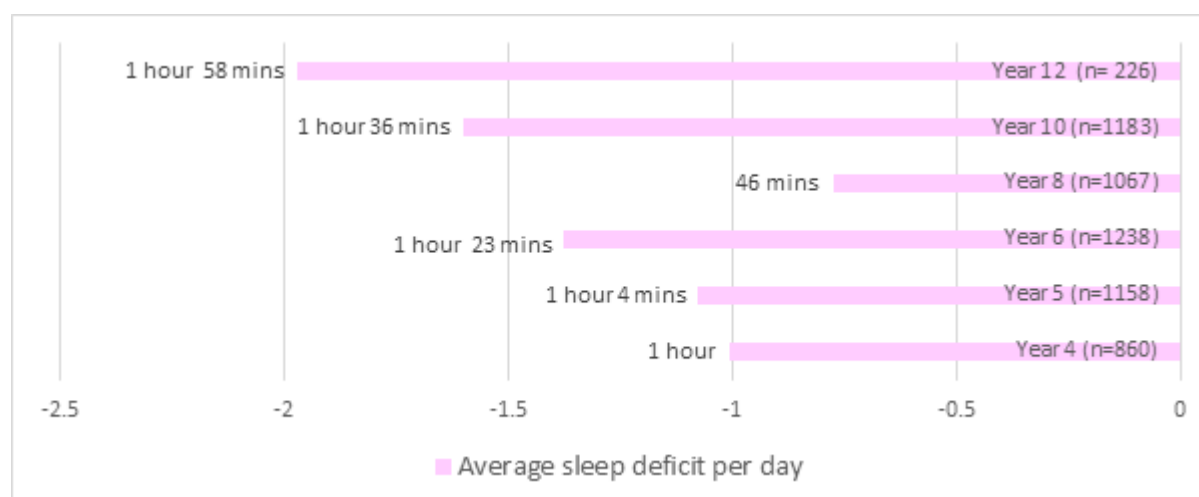
The following data are from the most recent South Gloucestershire health and wellbeing online pupil survey[1].

- 31% of Y6 pupils (10/11 years old) report regularly going to bed at 10pm or later.
- 29% of Y4, 5 & 6 pupils (7-11 years old) report taking 2 or more hours to go to sleep once in bed.
- 31% Y4, 5 & 6 pupils are spending this time watching TV or playing computer games.
- 82% of Y8&10 pupils (13-15 years old) report regularly going to bed at 10pm or later.
- 20% of Y8&10 pupils report being so worried about something quite often/most nights that they cannot sleep at night.

Deficit sleep in children and young people

Figure 5 shows as children get older they are getting less sleep than the recommended amount. These data are taken from the most recent South Gloucestershire health and wellbeing online pupil survey, where pupils were asked to select what time they went to bed and what time they woke up.

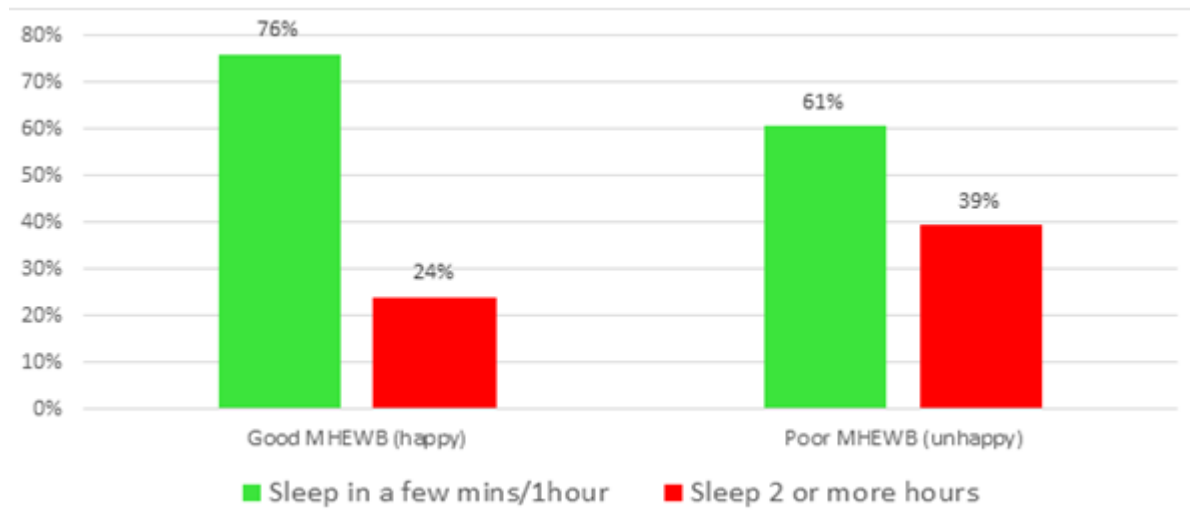
Figure 5



The effect of sleeping habits on primary and secondary pupils' mental health and emotional wellbeing

Figure 6 highlights how time taken to get to sleep at night impacts on the mental health and emotional wellbeing. Those pupils who report going to sleep in less than one hour after going to bed are more likely to have good mental health and emotional wellbeing than those pupils who take more than 2 hours to go to sleep.

Figure 6



[1] Health and Wellbeing online pupil survey (OPS) summary reports for 2014 and 2017 [accessed here](#)

Sleep during childhood, 5 – 13 year olds

Why is sleep important? What is typical and natural sleep for children?

This section summarises some key points about children's sleep and shares some excellent resources where more detailed information can be found. Sleep is essential to support development; it helps children to grow, to concentrate and to remember things. Well rested children are more able to meet their full potential in every aspect of their lives.

Our Biological Clock...A Case of Light and Hormones

Our "Biological Clock" is responsible for ensuring that we get enough sleep. Unlike babies and infants the biological clock is more established by childhood.

It's the body's way of making sure we get enough rest – it is triggered by light and darkness.

During the day the brain releases chemicals that build up and lead us to feel tired. The longer that we are awake, the more tired we become which increases our biological need to sleep, this is what is known as *sleep pressure*. Usually this means that we will feel sleepy at roughly the same time each day. Some things that we eat and drink can affect this process such as sugar and caffeine, making it harder for us to fall asleep.

Melatonin is a hormone that is produced when it gets dark and helps us go to sleep. The light from screens such as mobiles, laptops and T.V.s can stop your brain producing Melatonin and can subsequently make it harder for you to fall asleep.

The Impact of our Environment

Often this works in sync with our sleep/wake cycle for example, reduced light at night time, lack of noise, meal times, temperature and the behaviour and social cues of those around us (e.g. getting ready for bed). However, if these things are out of sync with our sleep/wake cycle (e.g. too much light from screens, being overtired, and too much caffeine/sugar) this can stop the release of the chemicals that control our sleep/wake cycle and make it harder for us to fall asleep.

A few bedtime routine tips

- Make sure the bedtime routine for your child is realistic, especially the times at which you start the routine
- Turn off all screens an hour before bedtime
- Get ready for bed in the same order

- Wake children up at the same time each morning to help strengthen their sleep-wake cycle
- Prioritise a dark or dim-lit environment to promote Melatonin and reinforce the biological clock

Common sleep problems in childhood

Self-settling

Often children can't settle themselves to sleep at the start of the night. Supporting children to soothe themselves to sleep can be done gently and gradually.

Changes in routine

Changes in routine can affect sleep. Holidays and celebrations are wonderful times but many families struggle afterwards to get their children to sleep. Sticking to a routine as much as possible is helpful and will ensure your child feels secure.

Feeling hungry or thirsty

Adding a supper time can help with hunger pangs at night. If your child is thirsty offer water. Diet is important and what is consumed during the day can impact on sleep. It's best to avoid anything sugar loaded during the evening such as biscuits and cakes. Caffeine is a stimulant so tea, coffee, cola and even hot chocolate are best avoided. Good choices are anything calcium based such as yoghurt, fromage frais or a glass of milk, and porridge is a great supper time snack.

Fear / anxiety

Some children may be genuinely fearful of the dark. Story books that talk about this fear can be helpful (there's a helpful book list in the **organisations and website** section below). Is it okay to use a night light? There are many reasons why it might be okay to install a night light in your child's room. But there are also reasons it may be best not to and you may need some toddler sleep help. [Here are the top pros and cons](#). Where fear or anxiety is severe it may be necessary to seek advice from your GP to see if specialist support is necessary.

Discomfort

The bed needs to have a supportive mattress. This is particularly important for growing children. An unsupportive mattress can result in aches and pains leading to problems in adulthood. Some children may be uncomfortable due to medical conditions, for example children with eczema may find it harder to get comfortable at night time. Common colds can make children feel uncomfortable and disrupt sleep.

Night time wetting

Bedwetting is common in children. Maintaining a consistent approach is useful and if your child

does wet the bed try to change them in a dimly lit environment with as little talking as possible.

If you are concerned with bedwetting there's useful advice on these websites:

[NHS Choices website](#) - Bedwetting

[ERIC](#) – The Children's Bowel and Bladder Charity

Sensory issues

If your child is very sensitive to noise during the day they are likely to be the same at night. This means that simple noises like the heating clicking on or a toilet flushing can wake them easily. Likewise some children are very sensitive to touch and do not want to be covered at night time, this can result in them becoming too cold and waking as a result. Consider what your child is wearing in bed that can help them to maintain a steady temperature throughout the night.

Night terrors and nightmares

Many children experience nightmares and night terrors but most grow out of them and they do not cause any long term harm. Night terrors are very different from nightmares:-

Night Terrors

This behaviour occurs on waking abruptly from deep, non-dream (non-REM) sleep. Your child will appear terrified but is actually asleep. Your child won't take comfort from you

What to do

- Wait for the terror to pass and then settle them back to sleep
- When night terrors are regular, try rousing your child 10 minutes before they usually happen for two weeks to break the cycle

Nightmares

These are bad dreams that children wake from. Nightmares occur from dream sleep (REM sleep). Your child may wake up from the nightmare and, depending on their age, may be able to remember and describe the bad dream to you. Your child will take comfort from you

What to do

- Reassure them it was a dream
- Do not reinforce the nightmare – there is no need to look under beds for monsters as they don't exist remember!

If you are concerned about night terrors or nightmares there's useful advice here:

[NHS Choices](#) – night terrors and nightmares

Summary

All children are individuals and will have individual sleep needs. The following are important to remember:

- Children pick up on your anxiety, try to remain calm as bedtime approaches.
- A bedtime routine is extremely important to support your child in relaxing. Bedtime routines need some thought and forward planning; being consistent is essential.
- Think about what might be causing the sleep issues and then work out the best way to address it. If you are worried discuss this with your school nurse or your GP.
- It takes children time to learn a new behaviour, including at night. Follow through any changes you make for at least two weeks to begin to see an improvement.
- Make sure your child is comfortable in their bed and the bedroom environment is a relaxing one.

Help and Information

Local support:

If your child's sleep-wake cycle is causing concern you should speak to your GP. You can also contact the following:

Your school nurse at:

Patchway Hub 01454 862434

Kingswood Hub 01454 862441

Yate Hub 01454 338804

There are parenting support courses available from:

The Bourne Family Project: 0117 9478441

Resound: 0117305969

Parenting support is also available from South Gloucestershire council following referral by a professional: First Point 01454 866000

Organisations and websites:

- www.familylives.org.uk
- The Children's Sleep Charity - 01302 751 416 / info@thechildrenssleepcharity.org.uk
- The Sleep Council - info@sleepcouncil.org.uk
- [Story books to help with bedtime fears](#)
- [Mental Health and Growing Up Factsheet](#) - Sleep problems in childhood and adolescence: for parents, carers and anyone who works with young people



Suggested checklist for professionals

An evening in the Life of a Child - what is the Child's Evening and Bedtime Routine?

After school

What do they do after school? Do they have anything to eat? What do they have? Do they go out and play? Do they take part in any sports or other activities? Do they do homework? Are there any issues around doing homework?

Evenings

Do they have an evening meal? What time is this? What is their favourite food? Do they have this often? Do they watch TV? If so, what do they watch? Do they use the internet/social networking sites? Is this supervised? Do they play computer games or online games? For how long?

Bedtime routine

Do they have a set time to go to bed? Who decides when it is time for bed? What do they do in the hour before going to bed? What do you do in the hour before they go to bed? Is there a TV in the bedroom? Are they allowed a tablet/mobile phone/iPad etc. in the bedroom? Do they have anything to eat or drink during this time? Is this always the same?

Bedroom environment

Where do they sleep? Do they like where they sleep? Is the bed and mattress comfortable? How is the bedroom lit? What temperature is the bedroom? What noises from the rest of the house can be heard in the bedroom? What noise from outside the house can be heard in the bedroom? Do they share the bedroom with siblings? If so, what age/s?

Getting to Sleep

How long do they usually take to fall asleep? What do they do between getting into bed and falling asleep? Do they fall asleep on their own? What helps them to fall asleep? Is there a light on? If so, is it left on all night?

Waking up

Do they wake up in the night? If so what happens when they wake up? How do they get back to sleep again? In the morning, do they use a clock to wake up? Does someone get them up? Does the same thing happen every day? What time does this happen?

This checklist can be used by professionals as a prompt when supporting parents and carers.

Source: South Gloucestershire Council Neglect Toolkit 2018