

## Effect bluelight on children

Blue light, particularly from screens like smartphones, tablets, and computers, can have several effects on children:

- 1. Disrupted Sleep Patterns:** Exposure to blue light, especially in the evening, can interfere with the body's production of melatonin, a hormone that regulates sleep. This may make it harder for children to fall asleep, leading to sleep deprivation.
- 2. Eye Strain and Discomfort:** Extended screen time can cause digital eye strain, leading to symptoms like dry eyes, blurred vision, and headaches. While there's no strong evidence that blue light causes permanent eye damage, it can contribute to discomfort and fatigue.
- 3. Potential Impact on Development:** Poor sleep quality due to blue light exposure can affect cognitive functions like attention, learning, and memory. Sleep is crucial for brain development in children, and disruptions can have long-term impacts.
- 4. Increased Risk of Myopia:** While not directly linked to blue light, excessive screen time has been associated with a rise in myopia (nearsightedness) among children. Time spent outdoors has been shown to reduce the risk of myopia, suggesting that screen-heavy lifestyles may play a role.

To minimize the effects of blue light on children, experts recommend limiting screen time, especially before bed, and using blue light filters or night mode settings on devices. Encouraging outdoor activities during the day can also help maintain eye health and improve sleep patterns.

<https://health.ucdavis.edu/blog/cultivating-health/blue-light-effects-on-your-eyes-sleep-and-health/2022/08>

<https://www.optometrists.org/childrens-vision/guide-to-childrens-eye-exams/8-tips-to-protect-your-childs-vision/does-blue-light-affect-children/>

<https://blog.georgiachildrens.org/2021/02/08/kids-and-the-blue-light-effect/>

## Attention span children

The attention span of children between the ages of 2 and 10 varies significantly based on their developmental stage, individual interests, and environmental factors. When it comes to listening to a story, here's a general breakdown of typical attention spans for this age group:

1. **Ages 2 to 3:** At this stage, children have very short attention spans, typically around **2 to 5 minutes** for focused listening, especially if the story is simple, engaging, and involves interactive elements like pictures or sounds. Their attention tends to wane quickly unless they are highly interested.

2. **Ages 4 to 5:** By preschool age, children's attention spans improve, allowing them to focus for **10 to 15 minutes**. They can enjoy slightly longer and more complex stories, especially if the stories involve repetition, familiar characters, or vivid illustrations.

3. **Ages 6 to 7:** School-aged children in this range can sustain attention for around **15 to 25 minutes**. They are better able to follow multi-step narratives and can appreciate stories with more developed plots. Interactive storytelling or asking questions during the reading can help maintain their engagement.

4. **Ages 8 to 10:** Children in this age group can maintain focus for **20 to 30 minutes or more**, especially if the story is well-structured and aligns with their interests. They are capable of understanding more complex narratives and can follow longer chapters in books.

### Key Factors that Impact Attention

- **Engagement:** Stories that involve interaction, ask questions, or are related to a child's interests can hold attention longer.

- **Story Complexity:** Shorter, more visual, and easier-to-follow stories work better for younger children, while older children can handle longer and more detailed narratives.
- **Environment:** A calm and quiet setting can significantly improve a child's ability to focus.

This progression in attention span is part of natural cognitive development, as younger children have more difficulty filtering distractions and maintaining focus for extended period.

<https://www.brainbalancecenters.com/blog/normal-attention-span-expectations-by-age>

<https://readykids.com.au/average-attention-span-by-age/>

<https://www.kids-houston.com/normal-attention-spans-for-kids/>

## AVI Reading level of children

### AVI Reading Levels Explained Briefly:

The different reading levels are indications. But how does AVI work? Each letter stands for:

- **E** = end, the final phase in each grade in primary school, leading to the start of the next grade.
- **M** = middle, the phase around the middle of the school year.

As you can see, most reading levels always overlap with the next school year. This is because children move up a step in reading each year.

### AVI-Start, M3, and E3: The Early Years

Learning to read well begins with simple words, which usually happens in group 3 (first grade in the Netherlands), right after kindergarten.

**Reading level explanation:** Simple words and short sentences.

**Age:** 5-8 years

**Primary school group:** Beginning of year 3 up to the beginning of year 4.

### **AVI M4 to M5: Building and Exploration**

Once they have mastered the basics, children move on to the next reading level. Words and sentences become slightly more challenging. If they don't reach this level yet, it's advisable to step back a bit first.

**Reading level explanation:** Increased complexity with longer sentences.

**Age:** 7-9 years

**Primary school group:** Middle of year 4 to the middle of year 5.

### **AVI E5 to M6: The Middle Years of Reading Development**

As children advance further in reading, they move to a higher level. Now, words and sentences form the foundation for fully independent reading.

**Reading level explanation:** Advanced sentences and storylines.

**Age:** 9-12 years

**Primary school group:** End of year 5 to the middle of year 6.

### **AVI E6 to E7: Mastery and Preparation for Advanced Reading**

At this level, children go one step further, preparing for secondary school.

**Reading level explanation:** Advanced language and complex storylines.

**Age:** Corresponding to year 7 and 8.

**Primary school group:** End of year 6 to the end of year 7 and year 8.

## **AVI Plus**

**Reading level explanation:** AVI Plus is the final reading level. Children reach this level in year 8. They can then read more difficult books. But E7 is the average reading level in year 8.

Source: <https://www.kinderboekenland.nl/blogs/nieuws/avi-leesniveau-uitleg-hoe-werkt-avi>