



K-12 EDITION • PRESENTED BY LENOVO AND EYESAFE

Healthier Classrooms in the Digital Age

A School Leader's Guide to Screens, Sleep and Student Eye Health

Lenovo | **eyesafe**

From the publishers of
How to Save Your Eyes in the Digital Age

Healthier Classrooms in the Digital Age

A School Leader's Guide to Screens, Sleep and Student Eye Health
Eyesafe® Handbook Series, K-12 Edition
Presented by Lenovo and Eyesafe

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Chapters are adapted from *How to Save Your Eyes in the Digital Age* (2nd edition), edited by David Friess, OD, FAAO, with chapters by Chad Dockter, OD; William Wiley, MD; Chuck Roseman, OD; Mitchell A. Jackson, MD; Melissa Bollinger, OD; Dagny Zhu, MD; Sheri Rowen, MD; Alya Pender, PhD and Paul Broyles. This edition has been updated with research published through 2025.

This guide is for general information and is not a substitute for professional medical advice, diagnosis or treatment. Students or families with concerns about vision, eye comfort or sleep should consult an eye care professional or pediatrician.

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Key Takeaways



Screens are now the classroom. One-to-one devices mean students spend a large part of the school day at a display, and the evening at home adds more.¹



Children's eyes are not small adult eyes. A child's clearer lens and larger pupil let more of a screen's light reach the retina, and measured melatonin suppression is about 1.5 times an adult's.²



Evening light matters most. Under the same evening light, children's melatonin suppression has been measured at nearly double that of adults.³



Sleep is a learning issue. Nearly 3 in 4 US high school students do not get enough sleep on school nights, and sleepiness is consistently linked to school performance.^{4,5}



Habits and hardware work together. Breaks, distance, brightness and outdoor time are free and effective. The light a screen emits is set at the factory, so it is decided when devices are bought.



Myopia is a near-work and outdoor-time issue. More time outdoors is the best-supported protective step. Filtering light is not a myopia treatment.⁶



Districts can specify it. Published, independently verified requirements let a district ask every bidder for lower blue light and true color in the same way it asks for battery life or durability.

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INTRODUCTION

A Note to School Leaders

Every generation of school leaders inherits a new technology question. For this one, it is the screen.

Laptops, Chromebooks and tablets are now as ordinary in classrooms as textbooks once were. They open doors to research, creativity and personalized learning, and they are not going away. The question for school leaders is no longer whether students use screens. It is how to make that time healthier.

This guide is written for the people who make that decision: superintendents, technology directors, curriculum and wellness leaders, school nurses and the teachers who put devices into students' hands every day. It is a companion to *How to Save Your Eyes in the Digital Age*, the handbook Eyesafe published with eye care professionals.⁷ This edition focuses on what matters in schools and updates the science with research published through 2025.

We have tried to write the guide we would want in your seat: plain language, every statistic cited, and an honest account of what the evidence does and does not show. You will find practical steps that cost nothing, questions to ask when you buy devices, and materials to share with families.

We are proud to present this edition with Lenovo, a leading provider of devices for education. Together, we share a simple goal: that every student can learn on screens designed with their eyes and their sleep in mind.

Our position is simple. Screens are good tools. Children deserve tools designed around their eyes and their sleep. The best results come from pairing healthier devices with healthy habits.

Eyesafe Inc.



CHAPTER 1

The Classroom Has Changed

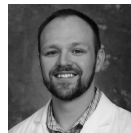
Screens are now part of the learning environment. Here is what that means in hours, distance and habits.

ADAPTED FROM THE HANDBOOK CHAPTER "SCREEN TIME" BY



William Wiley, MD

Dr. Wiley was among the first physicians in the country to implant the Crystalens accommodative intraocular lens for cataract surgery. To date, he has performed over 10,000 cataract and refractive surgical procedures.



Chuck Roseman, OD

Dr. Roseman is a member of the Cleveland Eye Clinic. He provides a full scope of eye care with emphasis on ocular disease and perioperative patient care.

In a single decade, the school day moved onto the screen.

Before 2020, many districts were already moving toward one device per student. The pandemic finished the job. At the height of school closures, about 1.37 billion students worldwide, roughly 80 percent of all learners, were affected, and distance learning replaced the classroom almost overnight.⁸ When students returned, the devices stayed.

8.5

hours a day of entertainment screen use for US teens, not counting schoolwork¹

5.5

hours a day for tweens ages 8 to 12, also outside of schoolwork¹

72.7%

of US high school students get insufficient sleep on school nights⁴

School screen time adds to home screen time

Those daily totals from Common Sense Media measure entertainment use: video, gaming, social media and browsing. They do not include time spent on school devices for lessons and homework. For many students, the school day adds several more hours at a display, and assignments often carry screen time into the evening.

Screens are closer than ever

We also hold screens closer than we hold paper. Studies of smartphone use put the average viewing distance at about 13 inches for adults, and children tend to hold devices closer still.⁹ Tablets and laptops sit nearer to students' eyes than a whiteboard or a book at arm's length. Distance matters for light, as Chapter 2 explains.

What has not changed

Children's biology has not changed. Their eyes are still developing, their body clocks still respond strongly to light, and they still need more sleep than adults. What has changed is the amount of time those developing systems spend in front of light-emitting displays, and at what hours.

THE TAKEAWAY FOR LEADERS

Screen time is now part of the learning environment in the same way that lighting, air quality and furniture are. It deserves the same kind of attention: sensible habits, and equipment chosen with students' health in mind.



CHAPTER 2

Children's Eyes Are Not Small Adult Eyes

Why the same screen delivers more light to a child, and what health agencies say about it.

ADAPTED FROM THE HANDBOOK CHAPTER "VARIABLES OF IMPACT AND A CLOSE LOOK AT OUR EYES" BY



David Friess, OD, FAAO

Dr. Friess is a leading clinical research optometrist with over 20 years of combined clinical care and leadership in clinical research and medical affairs.



Chad Dockter, OD

Dr. Dockter studied biology at the University of Minnesota and graduated from the Illinois College of Optometry in 1993. His specialty areas include family eye care, refractive surgery and pediatrics.

A child looking at the same screen as an adult receives a different dose of light.

A quick look at the eye

Light enters the eye through the cornea, passes through the pupil and is focused by the lens onto the retina. The retina does two jobs. It lets us see, and through special light-sensing cells that are most responsive to blue light near 480 nanometers, it tells the brain's master clock what time of

day it is.⁷

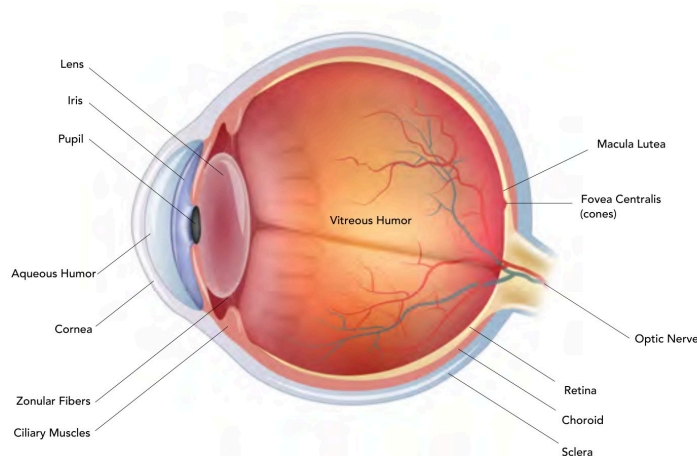


Figure 2.1. Cross-section of the human eye. Source: *How to Save Your Eyes in the Digital Age*, Figure 1-1.

Visible light runs from about 380 nanometers (violet) to 780 nanometers (red). The short-wavelength, high-energy end, roughly 380 to 500 nanometers, is what people mean by blue light. Within it, the 435 to 440 nanometer range is the peak of the blue light hazard range, and light around 480 nanometers most influences the body clock. The LED backlights in most laptops, tablets and phones produce white light by starting with a strong blue peak, which is why displays are a significant source of blue light at close range.⁷

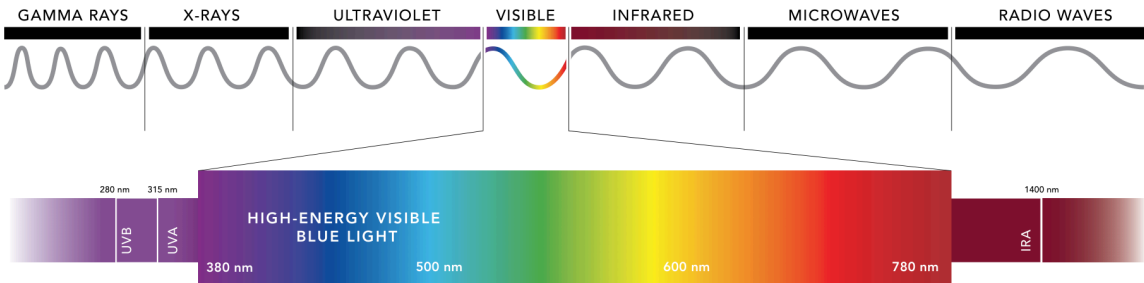


Figure 2.2. High-energy visible (HEV) blue light sits at the short-wavelength end of visible light, roughly 380 to 500 nm. Source: *How to Save Your Eyes in the Digital Age*, Figure 2-1.

Why children receive more

The lens of the eye is clearest in childhood and gradually yellows with age, filtering more blue light as we get older.¹⁰ Children also have larger pupils. In a controlled study comparing children with adults, these two differences meant children received about 1.5 times the circadian-active light at the retina, and their measured melatonin suppression was about 1.5 times greater, matching the optics.² Optical modeling across ages 1 to 100 shows the same pattern: from the same display, the effective blue light dose is highest in the youngest eyes and declines steadily with age.¹¹

Circadian-active light reaching the retina



Melatonin suppression, measured



Figure 2.3. Same light, different dose. Children compared with adults under identical conditions. Source: Eto et al., 2021.²

Why distance multiplies the effect

Children have shorter arms, and they tend to hold tablets and phones closer. Light follows the inverse square law: halve the distance and the light reaching the eye is four times as intense.⁷ A child holding a tablet at 8 inches receives four times the light of the same tablet at 16 inches.

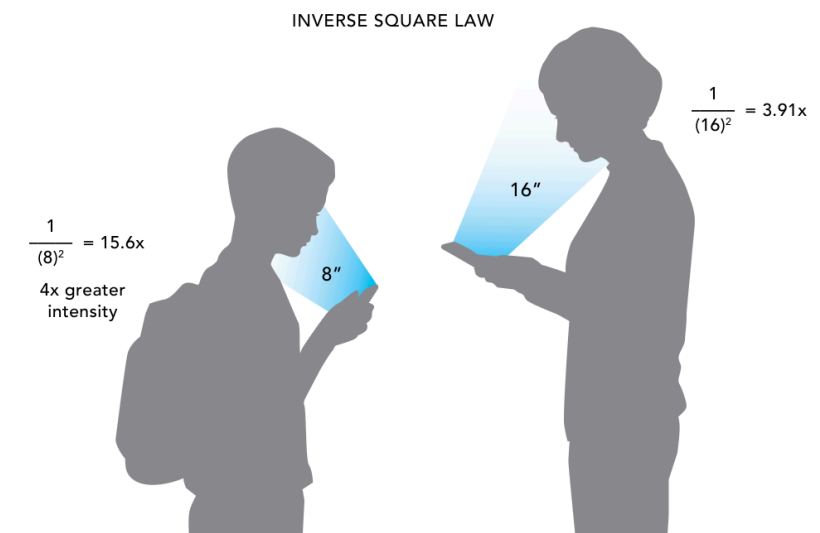


Figure 2.4. Children hold displays closer. Holding a display twice as close quadruples the intensity of light at the eye.
Source: *How to Save Your Eyes in the Digital Age*, Figure 8-2.

What health agencies say

Public health agencies have noted that children are a more sensitive population. France's national health agency, ANSES, observed that the lens continues to develop until around age 20 and filters less blue light in childhood, and it recommends limiting children's exposure to blue-rich LED screens before bedtime and at night.¹² The European Commission's scientific committee, SCHEER, noted children's greater sensitivity because of larger pupils, shorter viewing distances and less lens yellowing.¹³ The International Commission on Non-Ionizing Radiation Protection has also acknowledged that children are more sensitive, and it points to evening exposure as the open concern.¹⁴

WHAT THE SCIENCE DOES NOT SAY

Screens used normally are not an acute eye hazard; they fall within the safe, exempt category of international lamp safety standards. There is no evidence that screens cause eye disease in children, and this guide makes no such claim. The concern is cumulative exposure and timing, especially in the evening, when light affects the body clock. That makes healthier screens a design question, not a cause for alarm.



CHAPTER 3

Screens, Sleep and Learning

The path from evening light to melatonin, sleep, attention and grades.

ADAPTED FROM THE HANDBOOK CHAPTER "CIRCADIAN RHYTHM" BY



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Melissa Bollinger, OD

Dr. Bollinger is an optometrist with 25 years of clinical experience. She served as an adjunct clinical professor at The Ohio State University College of Optometry for 8 years and practices at Jacksoneye in Lake Villa, Illinois.

The link between screens and school performance runs through sleep.

Light sets the body clock

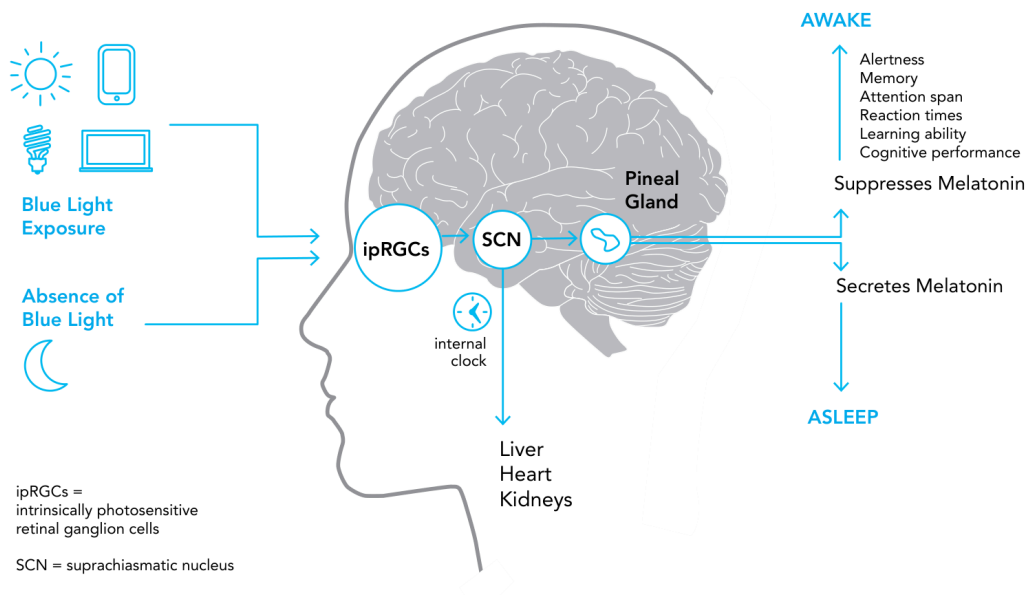


Figure 3.1. Blue light acts through light-sensing cells in the retina (ipRGCs) on the brain's master clock (SCN), which signals when to suppress or release melatonin and supports daytime alertness, memory and learning. Source: *How to Save Your Eyes in the Digital Age*, Figure 4-2.

As evening approaches, the body releases melatonin, the hormone that prepares us for sleep. Light, and blue light in particular, suppresses it. In controlled experiments, reading on a light-emitting screen in the evening suppressed melatonin, delayed the body clock, lengthened the time needed to fall asleep and reduced alertness the next morning, compared with reading printed pages.^{15,16}

Children respond more strongly

Children's clocks are especially sensitive. Under identical evening light, one study measured melatonin suppression of 88 percent in children compared with 46 percent in adults. Ordinary room lighting suppressed melatonin in children but not in adults.³ In preschoolers, even dim evening light produced strong suppression that persisted after lights out.¹⁷ And in a trial with teenagers, filtering the blue portion of evening screen light protected their melatonin production.¹⁸

Melatonin suppression under the same evening light



Figure 3.2. Children's body clocks respond more strongly to evening light. Source: Higuchi et al., 2014.³

What happens at population scale

A review of 67 studies found that 90 percent linked screen time with poorer sleep in school-aged children and adolescents.¹⁹ A meta-analysis of more than 125,000 children found that using a device at bedtime was associated with more than double the odds of inadequate sleep and nearly triple the odds of excessive daytime sleepiness. Even having a device in the bedroom, without using it, raised the odds.²⁰

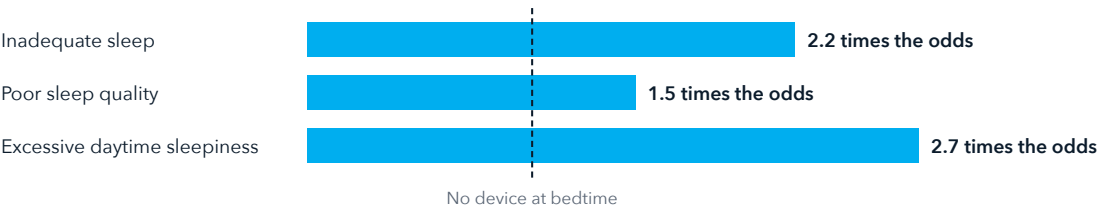


Figure 3.3. Bedtime device use and children's sleep, across 125,198 children in 20 studies. Source: Carter et al., 2016.²⁰

These population figures reflect screens overall: the light, the stimulation of the content and the time taken from sleep all play a part.²¹ The controlled light studies above are what isolate the role of light.

From sleep to learning

Sleep and learning are closely connected. A meta-analysis spanning about 48,000 students found that sleepiness, sleep quality and sleep duration were each related to school performance, with the strongest effects in younger children.⁵ In a controlled experiment, one week of restricted sleep impaired attention, working memory and mood in high-performing adolescents, and two nights of recovery sleep did not fully reverse the effects.²² In a study of about 20,000 Swedish adolescents, those reporting chronically short sleep were 4 to 5 times more likely to fail at least one subject.²³ Researchers have also traced the path directly, linking device use to lower academic performance through shorter sleep and daytime sleepiness.²⁴

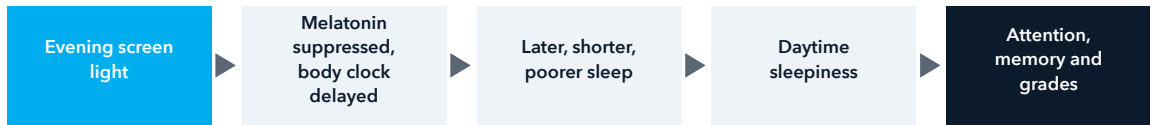


Figure 3.4. How evening screen use connects to learning, as traced in the research cited in this chapter.

Sleep is already on the school leadership agenda. The American Academy of Pediatrics recommends middle and high schools start no earlier than 8:30 a.m. because insufficient sleep harms learning,²⁵ and experimental studies show later start times add sleep and reduce daytime sleepiness.²⁶ Evening light is part of the same picture.

READING THE EVIDENCE HONESTLY

Most population studies show association rather than proof of cause; the controlled experiments provide the causal link. How screens are used matters: a large meta-analysis found overall screen time was not linked to grades, while heavy television and video gaming were.²⁷ In US studies, sleep quality and sleepiness track academic results more closely than hours of sleep alone.²⁸ The answer is not fewer learning tools. It is healthier screens and healthier evening habits.



CHAPTER 4

Near Work, Outdoor Time and Myopia

What the evidence says about nearsightedness, and the simple step that helps most.

ADAPTED FROM THE HANDBOOK CHAPTER "CHILDREN'S EYE HEALTH IN THE DIGITAL AGE" BY



Dagny Zhu, MD

Dr. Zhu is a board-certified ophthalmologist and fellowship-trained cornea, cataract and refractive surgeon, and Medical Director and Partner at NVISION Eye Centers in California. She has published, lectured and been featured in over 100 journal articles, book chapters, conferences and press features.

Nearsightedness is rising worldwide. The best-supported response is simple: time outdoors.

Myopia, or nearsightedness, develops when the eye grows too long for its focusing power, so distant objects look blurred. It is rising quickly around the world. Researchers project that about half of the world's population could be myopic by 2050.²⁹ Genetics play a role, but so does environment, and two factors stand out: long periods of close-up work and too little time outdoors.⁷

Near work and screens

Reading, writing and screen use all keep the eyes focused up close. A 2025 meta-analysis found a dose-response relationship between daily screen time and myopia, with risk rising for each additional hour.³⁰ Screens are one form of near work, and the habits that help are the same: regular breaks and a sensible viewing distance.

Outdoor time protects

Time outdoors is the most consistent protective factor in the research. In a randomized trial in Chinese schools, adding one outdoor class a day reduced new cases of myopia over three years.³¹ A meta-analysis found that more time outdoors was associated with substantially lower risk of developing myopia.⁶ Researchers believe bright outdoor light and looking at distant objects both play a role.

FOR SCHOOL LEADERS

Protect recess and outdoor learning time. Schedule screen-heavy lessons with breaks. Support routine vision screening and refer students to an eye care professional when concerns arise. These steps cost little and have strong support in the evidence.

AN IMPORTANT DISTINCTION

Filtering blue light from screens is not a myopia treatment, and no one should present it as one. Healthier screens address light exposure and evening sleep disruption. Myopia is addressed with breaks from near work, outdoor time and professional eye care.



CHAPTER 5

The Healthy Classroom Playbook

Practical, no-cost steps for classrooms, device settings, homework and recess.

ADAPTED FROM THE HANDBOOK CHAPTER "DISPLAY DISTANCE AND USAGE ADAPTATIONS TO REDUCE PROBLEMS" BY



Sheri Rowen, MD

Dr. Rowen is a pioneer in the field of ophthalmology, recognized for her teaching and surgical expertise. Her practice offers advanced procedures that correct distance and near vision.

Most of what helps costs nothing. It only needs to become routine.

In the classroom

- 1 Build in the 20-20-20 break.** Every 20 minutes, look at something about 20 feet away for 20 seconds. Many teachers link it to a timer or a transition.³²
- 2 Plan longer breaks for longer screen blocks.** After 30 to 40 minutes of continuous screen work, a few minutes away from the screen helps eyes and attention.⁷

- 3 Mind the distance.** Laptops at about arm's length, and tablets at 18 to 24 inches rather than close to the face.⁷
- 4 Match brightness to the room.** A screen much brighter than its surroundings causes glare and discomfort. Turn on automatic brightness where available.
- 5 Increase text size.** Larger text lets students sit back rather than lean in.
- 6 Reduce glare.** Angle screens away from windows and use blinds when sunlight hits displays directly.
- 7 Encourage good posture.** Screens at or slightly below eye level, feet on the floor, back supported.
- 8 Remind students to blink.** Concentrated screen use reduces blinking and can leave eyes dry and uncomfortable.

Device settings the district controls

Managed devices give districts a lever that individual families do not have. Technology teams can set sensible defaults across a fleet:

- Turn on automatic brightness by default.
- Schedule warmer evening display settings (often called night light or night shift) on take-home devices, for example from 7 p.m.
- Set comfortable default text sizes for younger grades.
- Where devices support it, use district policies to prompt screen breaks.

Software settings help in the evening, but they change the color of everything on screen and students can switch them off. Hardware that lowers blue light at the source works all day without changing what students see.

Chapter 6 covers how to specify it.

Homework and evenings

- Where possible, design assignments so screen work can be finished earlier in the evening.
- Encourage a screen-free hour before bed, and devices charging outside the bedroom. Research shows even having a device in the bedroom is linked to poorer sleep.²⁰
- Share the family guidance in Chapter 7 so the message is the same at home and at school.

Outdoor time and eye care

- Protect recess and look for chances to take learning outside.³¹
- Support regular vision screening, and make referral to an eye care professional easy for families.

What pediatric guidance says

Source	Guidance
World Health Organization	No sedentary screen time for children under 1; no more than 1 hour a day for ages 2 to 4. ³³
American Academy of Pediatrics	For ages 2 to 5, limit screen use to 1 hour a day of high-quality content; for older children, consistent limits and screen-free bedrooms and mealtimes. ³⁴
American Academy of Ophthalmology	Frequent breaks using the 20-20-20 rule and a comfortable viewing distance. ³²
ANSES (France)	Limit children's exposure to blue-rich LED screens before bedtime and at night. ¹²



CHAPTER 6

Buying Smarter: What to Specify

Habits shape how screens are used. Procurement decides the light they emit.

ADAPTED FROM THE HANDBOOK CHAPTER "COLOR SCIENCE" BY



Paul Broyles

Paul Broyles earned his engineering degree from The University of Texas at Austin and served at HP for 26 years, including as Director, Engineering and Quality, Displays and Accessories.



Alya Pender, PhD

Dr. Pender is a Research Scientist at Eyesafe. She graduated from the University Pierre & Marie Curie in Paris and has worked in laboratories in France, Germany, Italy and the United States.

Habits change how screens are used. Only the device decides what light it emits.

A screen's light is designed at the factory. No classroom routine can change the spectrum of the display a student is looking at. That is decided once, when the district chooses what to buy, and it then applies to every student, every hour, for the life of the device. Protection built in means there is nothing for the child to remember and nothing for the teacher to enforce.

What healthier display technology does

Modern display engineering can lower the most energetic blue light while keeping colors true. Earlier approaches, such as yellow-tinted software modes, reduced blue light by shifting every color toward amber. Current approaches target the part of the spectrum that matters and leave the rest alone, so images, video and learning content look the way they should.

Standards you can put in a bid

Eyesafe publishes requirements that set measurable limits for blue light alongside color performance, and products are verified by independent laboratories such as UL Solutions.

Requirement	What it covers
Eyesafe Display Requirements 3.0	Laptops, monitors, tablets and TVs. A minimum blue light protection level (RPF [®] 35) together with color gamut and color temperature limits, measured in the default mode the student will actually use. ³⁵
Eyesafe Screen Accessory Requirements 3.0	Screen protectors and filters for existing devices. Graded levels from RPF 20 to RPF 80, each with limits on color shift and brightness loss. ³⁶

RPF (Radiant Protection Factor) measures how much a display reduces blue light in the highest-energy range. CPF[®] (Circadian Protection Factor) rates reduction in the range that most influences the body clock.

Questions to ask every bidder

1. Does the display meet a published blue light requirement, and at what level?
2. Is the result independently verified, and can we check it in a public registry?
3. Is protection active in the default display mode, with no setting for students to turn on?
4. Does the display keep accurate color, so learning content is not tinted?
5. For devices already in service, is a verified screen protector available that meets the same kind of requirement?

Lenovo education devices with Eyesafe protection

For Lenovo education Chromebooks and tablets, Eyesafe screen protectors are available through Lenovo and its education resellers. Each adds a hard-coated protective layer to the display and is rated RPF 60 under Eyesafe Screen Accessory Requirements 3.0.³⁶ The protector is applied to the device's screen, so protection is in place from the first day of use with nothing for students to turn on.

Lenovo device	Screen size	Lenovo part number
Lenovo 100e Chromebook (Gen 4, Gen 5)	11.6 in	4Z11V35574
Lenovo 300e Chromebook (Gen 4, Gen 5)	11.6 in	4Z11V35573
Lenovo 500e Chromebook (Gen 4, Gen 5)	12 in	4Z11V35572
Lenovo Duet EDU G2 and Chromebook Duet	10.1 in	4Z11V35571

Protectors are also available for ThinkPad models used by teachers and staff. Find the right part for every device at eyesafe.com/lenovo3po, or ask your Lenovo account team or education reseller.

Existing fleets

Districts do not have to wait for the next refresh cycle. For devices already in classrooms, verified screen protectors add blue light reduction and physical protection for the screen at the same time.

Evidence from Eyesafe's own studies

Eyesafe's own studies were conducted with adults and are reported separately from the children's research in this guide. In a study with SleepScore Labs, adults using displays with CPF 70 protection showed a measured improvement in sleep score, published as a peer-reviewed abstract.³⁷

READY-MADE SPECIFICATION LANGUAGE

The free Screen Health Specification Pack contains requirement language a district can paste into an RFP, a supplier response form and guidance for evaluating bids. Download it at eyesafe.com/specify. A sample clause is included in Appendix B.



CHAPTER 7

Partnering With Families

Carrying healthy habits home, with a reproducible family sheet.

ADAPTED FROM THE HANDBOOK CHAPTER "CHILDREN'S EYE HEALTH IN THE DIGITAL AGE" BY



Dagny Zhu, MD

Dr. Zhu is a board-certified ophthalmologist and fellowship-trained cornea, cataract and refractive surgeon, and Medical Director and Partner at NVISION Eye Centers in California. She has published, lectured and been featured in over 100 journal articles, book chapters, conferences and press features.

Screens go home in backpacks. Healthy habits should go with them.

Evening use at home is where screen light has the greatest effect on sleep. Families want to help but are often unsure what matters. A short, consistent message from the school carries weight.

Five messages for families

- 1 Finish screen homework earlier.** Where you can, get screen work done before the last hour of the evening.

- 2 Charge devices outside the bedroom.** Having a device in the bedroom is linked to poorer sleep even when it is not used.²⁰
- 3 Lower brightness and use evening settings.** Turn brightness down after dark and turn on the device's warmer night setting.
- 4 Hold screens farther away.** Tablets at 18 to 24 inches, and take a 20-second look into the distance every 20 minutes.⁷
- 5 Get outside every day.** Outdoor time supports healthy eyes and better sleep.⁶

Ways to share the message

- Include the one-page family sheet on the following page in back-to-school packets and newsletters.
- Ask school nurses to share it with families of students who report eye discomfort or poor sleep.
- Add a short note to device take-home agreements.
- Point families to eyesafe.com/protect for more resources.

FOR FAMILIES

Healthy screens at home

Your child's school device is a learning tool. These simple habits help protect eyes and sleep.



01

Earlier is better



Finish screen homework before the last hour of the evening when you can.

02

Bedrooms are for sleep



Charge phones, tablets and laptops outside the bedroom overnight.

03

Dim after dark



Lower brightness in the evening and turn on the device's warmer night setting.

04

20-20-20



Every 20 minutes, look at something 20 feet away for 20 seconds.

05

Arm's length



Hold tablets 18 to 24 inches from the eyes, not close to the face.

06

Outside every day



Time outdoors supports healthy eyes and better sleep.

Why it matters: children's eyes let in more of a screen's light than adults' eyes do, and their body clocks respond more strongly to light in the evening. If your child has eye discomfort, headaches or trouble seeing, talk with an eye care professional. This sheet may be copied and shared freely.

TOOLS FOR YOUR DISTRICT

Put the guide to work

Ready-to-use tools for principals, technology teams, wellness committees and families. Every page that follows may be copied and shared within your district.

**A**

Healthy Classroom Checklist

**B**

Sample Specification
Language

**C**

Glossary

APPENDIX A

Healthy Classroom Checklist

A one-page review for principals, technology teams and wellness committees. Copy and share freely.

CLASSROOM ROUTINES

- ☐ 20-20-20 breaks built into lessons
- ☐ A short break after every 30 to 40 minutes of continuous screen work
- ☐ Laptops at arm's length; tablets 18 to 24 inches from the eyes
- ☐ Glare checked: screens angled away from windows, blinds used
- ☐ Recess and outdoor learning protected

DEVICE MANAGEMENT

- ☐ Automatic brightness on by default
- ☐ Warmer evening display setting scheduled on take-home devices
- ☐ Comfortable default text size for younger grades

HOMEWORK AND FAMILIES

- ☐ Screen-based assignments designed to finish earlier in the evening
- ☐ Family sheet shared in packets, newsletters and device agreements
- ☐ Vision screening in place, with easy referral to eye care

PROCUREMENT

- ☐ Blue light and color requirements written into device RFPs
 - ☐ Independent verification required and checked in a public registry
 - ☐ Protection active in the default mode, with nothing for students to turn on
 - ☐ Verified screen protectors evaluated for devices already in service
-

Sample Specification Language

Requirement language a district can adapt for device and accessory procurement.

The following sample language is adapted from the Screen Health Specification Pack. Districts should adapt it to their own procurement rules and legal review. The full pack, with a supplier response form, is free at eyesafe.com/specify.

Screen health requirements (sample)

- (a) Blue light.** All student-facing displays (laptops, Chromebooks, tablets, monitors and interactive displays) shall meet Eyesafe Display Requirements 3.0 or a documented equivalent, including a Radiant Protection Factor of RPF 35 or higher, measured in the display's default mode.
- (b) Color performance.** Blue light reduction shall not be achieved by a visible color tint. Displays shall meet the color gamut and color temperature limits of the requirement cited in (a).
- (c) Verification.** Bidders shall provide independent laboratory verification for each proposed model and identify where the result can be checked in a public registry.
- (d) Default state.** Protection shall be active in the display's default configuration and shall not depend on students or staff enabling a setting.
- (e) Existing devices.** Where screen protectors are proposed for devices in service, they shall meet Eyesafe Screen Accessory Requirements 3.0 at RPF 20 or higher, with independent verification.

TALK WITH US

Planning a device refresh or reviewing screen health in your district? Eyesafe can walk your team through the requirements and the evidence. Email info@eyesafe.com with the subject line "Healthier Classrooms briefing".

Glossary

Terms used in this guide.

Blue light	The short-wavelength, high-energy portion of visible light, roughly 380 to 500 nanometers.
Circadian rhythm	The body's roughly 24-hour internal clock, set largely by light, which regulates sleep and alertness.
CPF (Circadian Protection Factor)	A rating of how much a display reduces light in the range that most influences the body clock.
Inverse square law	The physical rule that light intensity increases fourfold each time the distance to the source is halved.
Melatonin	The hormone released in the evening that prepares the body for sleep; suppressed by light, especially blue light.
Myopia	Nearsightedness; distant objects appear blurred because the eye has grown too long for its focusing power.
Near work	Sustained close-up visual tasks such as reading, writing and screen use.
RPF (Radiant Protection Factor)	A rating of how much a display or screen accessory reduces blue light in the highest-energy range.
20-20-20 rule	Every 20 minutes, look at something about 20 feet away for at least 20 seconds.

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