

# School Start Time Study Council Update

2-6-20

#### Comprehensive Plan (2020-2023)

**Goal 1:** The Pennsbury School District will initiate, support and maintain programs and strategies that will support the whole child



#### Strategies:

- Investigate Changing School Start Times
- Evaluate and Implement Targeted Intervention Programs
- Develop Comprehensive Alternative Education Option
- Continue/Expand Appropriate Social/Emotional Learning (SEL)

#### District Goal (2019-2020)

#### **Support Consideration of New Educational Initiatives**

- Implement K-12 STEM Program
  - Implement SPARK program as 5th elementary school special area period.
  - Assess the benefits/challenges of offering such learning opportunities.
- Develop and implement the Cyber Academy at Pennsbyry (CAP)
  - Determine and procure the most appropriate urricular options for students.
  - Advertise availability of the cyber learning portunity through print and electronic media.
  - Host a community evening event to attract potential students and families.
  - Monitor student participation at CAP ughout the year.
- Investigate changing school start times.
  - Review literature and research from prominent medical and educational experts.
  - Form an ad-hoc committee of stakeholders to meet throughout the year discussing research, community survey results and possible scheduling alternatives.
  - Present a progress report to the Board of School Directors and community by June 2020.
- Engage in curriculum renewal processes to enhance educators' ability to meet the needs of all students.
  - Host curriculum writing opportunities for District-wide curriculum leaders with support from expert, Dr. Jay McTighe.
  - Enhance K-12 assessment plan.

#### Committee Representation

Central Office Administrators (10)	Professional Personnel (6)
School Board Members (3)	Support Personnel (4)
Building Level Administrators (7)	Supervisory Personnel (2)
Parents (7)	Community Partner (1)

Students' voice will be added through future focus group meetings and survey instruments.

#### What is a Circadian Rhythm?

The Circadian Rhythm's functions are controlled within the hypothalamus, a portion of the brain. Within this part of the brain lies the suprachiasmatic nucleus (SCN).

This is the component in our brains that functions like a clock, operating on a 24-hour rhythm. The SCN controls the production of melatonin, the hormone responsible for making you feel tired or sleepy.

Within the SCN are a group of neurons that have the neuropeptide called Neuromedin S (NMS), which are critical for the timing of the Circadian Rhythm.

#### What is Melatonin?

Melatonin is a natural hormone made by your body's pineal (pih-knee-uhl) gland. This is a pea-sized gland located just above the middle of the brain.

During the day the pineal is inactive. When the sun goes down and darkness occurs, the pineal is "turned on" by the SCN and begins to actively produce melatonin, which is released into the blood. Usually, this occurs around 9 pm.

As a result, melatonin levels in the blood rise sharply and you begin to feel less alert. Sleep becomes more inviting. Melatonin levels in the blood stay elevated for about 12 hours - all through the night - before the light of a new day when they fall back to low daytime levels by about 9 am.

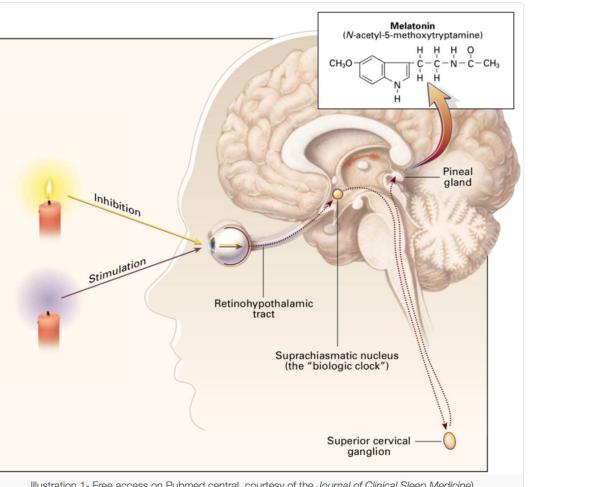


Illustration 1- Free access on Pubmed central, courtesy of the Journal of Clinical Sleep Medicine).



### American Academy of Pediatrics

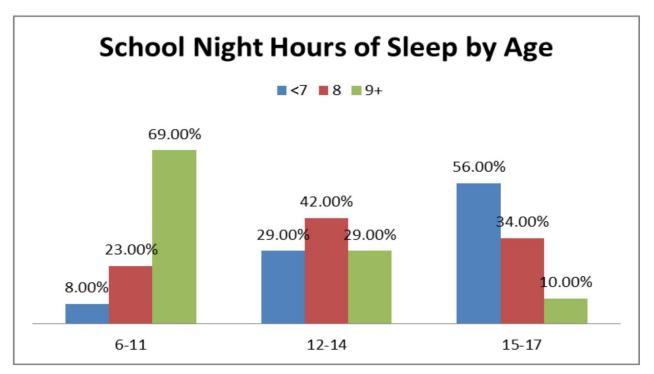


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The consensus group recommends the following sleep hours:

- Infants 4 months to 12 months should sleep 12 to 16 hours per 24 hours (including naps) on a regular basis to promote optimal health.
- Children 1 to 2 years of age should sleep 11 to 14 hours per 24 hours (including naps) on a regular basis to promote optimal health.
- Children 3 to 5 years of age should sleep 10 to 13 hours per 24 hours (including naps) on a regular basis to promote optimal health.
- Children 6 to 12 years of age should sleep 9 to 12 hours per 24 hours on a regular basis to promote optimal health.
- Teenagers 13 to 18 years of age should sleep 8 to 10 hours per 24 hours on a regular basis to promote optimal health.

#### SNATIONAL SLEEP FOUNDATION



**Figure 1:** School Night Hours of Sleep by Age Group. While 69% of kids age 6-11 get approximately enough sleep, just 1 in 10 15-17 year olds are. Source: National Sleep Foundation, 2014..

#### Joint State Government Commission (Oct. 2019)

## SLEEP DEPRIVATION IN ADOLESCENTS: THE CASE FOR DELAYING SECONDARY SCHOOL START TIMES

Report of the Advisory Committee on Later School Start Times at Secondary Schools

OCTOBER 2019

#### Sessions in Other Bucks County Districts

PENNRIDGE SCHOOL DISTRICT SLEEP AND SCHOOL START TIME COMMITTEE PRESENTS:

#### ADOLESCENT SLEEP AND SCHOOL START TIMES: WHAT DO WE NEED TO KNOW?

With Drs. Jacqueline Kloss and Amanda Finegold Swain

#### January 29 • Wednesday • 7 PM Pennridge High School Auditorium



Jacqueline D. Kloss, Ph.D. Licensed Psychologist Bryn Mawr Psychological Associates



Amanda Finegold Swain, MD Staff Physician, Student Health Service Clinical Assistant Professor of Family Medicine and Community Health University of Pennsylvania

#### Sessions in Other Bucks County Districts



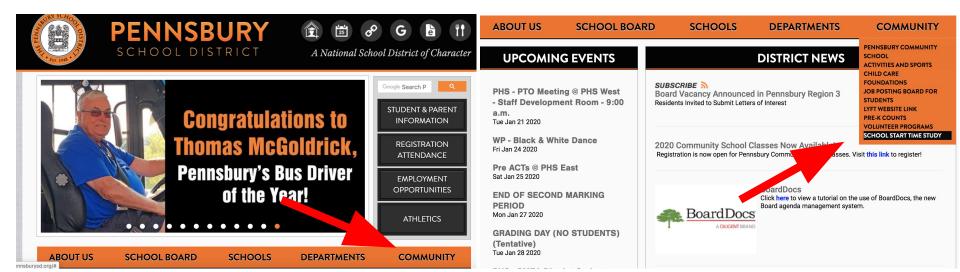
#### MARK YOUR CALENDAR

Nationally recognized expert on sleep health, Dr. Wendy Troxel, will present her findings on adolescent sleep habits and needs. This presentation is free, open to the public, and requires no registration.



PROMOTING SLEEP HEALTH IN ADOLESCENTS

WEDNESDAY, FEBRUARY 5
7 P.M. - NEWTOWN MIDDLE SCHOOL





#### Future Dates (Tentative Topics)

- Thursday, February 27, 2020
  - Review of Radnor Township SD Proposal
- Thursday, March 26, 2020
  - Develop Options
- Thursday, May 28, 2020
  - Construct Stakeholder Survey
  - Continue Development of Options
- September/October 2020
  - Conduct Survey/Host Community Forum
- November 2020
  - Finalize Pennsbury SD Proposal for Board of Directors