

# HIGH SCHOOL

## PARENT



## The teenage brain: A work in progress

One day your teenage daughter is elated about a new friend, but the next, that friendship is *SO* over. Though your son can spend hours absorbed with an Internet chat room, getting him to “chat” with you for more than a few minutes can be like pulling teeth.

Just when you are questioning who these kids are and why they’re acting so erratically, comes comforting news from science: you can attribute the teenage ups and downs to their brains. No, their brains are not malfunctioning. They are developing as nature intended.

For years we have heard about the vital importance of the first three years of children’s lives – this is supposedly when all brain function develops and is set in permanence. However, dramatic discoveries indicate that the pre-teen and teenage years are just as important when it comes to brain development.

At the beginning of the decade, scientists at the National Institute of Mental Health (NIMH) announced exciting research showing there is a significant surge in growth of the pre-adolescent brain. Prior to this study, research had shown that the brain produced large amounts of “gray matter” in the womb and for about the first 18 months of life. After that, the brain supposedly underwent a process of pruning (eliminating unnecessary brain connections known as synapses).

However, researchers now understand that significant brain development happens on into adolescence. Here is what the research means for teens:

- Though brain size may stabilize by age five, brain growth and change continues through the teen years in differing ways.
- The surge of hormones at puberty seems to stimulate brain growth in pre-adolescents. The brain’s frontal lobes (the areas that aid self-control, judgment, emotional maturity, organizing and planning) begin to grow again, starting at about age 10 for girls and age 12 for boys.
- Nerve cells that aid intelligence, consciousness and self-awareness keep growing even into a person’s 20s.
- Brain growth is basically a “use-it-or-lose-it” process. The brain’s ability to acquire and retain new information will expand if stimulated or shrink if neglected. Those skills that are regularly exercised or experiences that are traumatic or particularly positive become part of the brain’s long-term memory. Those that are not tend to be lost after a short time.
- During the teen years, other parts of the brain that control sight, sound, speech, language, emotions like fear and anger and the area that creates memories are also under construction.

### Using this research to promote learning

The quality of a teen’s experiences actually directs how their brains are eventually hard-wired or finished. According to Dr. Jay Giedd, the lead scientist who conducted

the NIMH research, “Teens have the power to determine (the direction of) their own brain development. Whether they do art, music or sports, video games or books, those brain structures are adapted accordingly.” And those areas that are not stimulated may be pruned away to make room for the areas that are growing.

*Here are some ways to influence your child’s brain growth and promote learning:*

- **For brains to grow, they need proper stimulation.** Teens who spend much of their time overdosing on nonverbal, sedentary activities like watching television or surfing the Internet risk losing their brain’s capacity to process and strengthen other more challenging and useful skills.
- **Brain “burn-out” can also be a problem.** Teens with jam-packed schedules may have too little time to let their minds rejuvenate. Teens need a range of active and passive experiences for their brains to grow and stay healthy. They may also need your help to find the right balance.

- **The areas of a teen’s brain that regulate self-control are not fully developed.** That’s why they often seem so impetuous. Again, teens need your help to understand the limits of acceptable behavior and the consequences of going too far.

- **The areas of teen brains that influence organization are also still developing.** Therefore, they may need your help to develop organizational strategies. For ideas, talk to the school’s guidance staff or link to [www.teachervision.com/lesson-plans/lesson-3676.html](http://www.teachervision.com/lesson-plans/lesson-3676.html)

- **Emotions have a strong impact on brain development.** Teens need to feel safe in order to grow mentally strong. In fact, brain research shows there is a chemical released that blocks learning when students feel threatened. Parents can help by maintaining a positive home environment, as free as possible from strife. Keep the lines of communication open. Talk with your teens about what bothers them. Realize that your efforts to work through disagreements and find common ground can make a difference in how well they learn.

- **Sharpening the brain is an ongoing process.** One of the best ways to help your teen develop the lifestyle of a learner is to be a good role model. Make sure your son or daughter sees you doing what you love and what keeps you sharp. Read, write, explore hobbies, exercise or learn new skills.



## What will the new school budget mean for the High School?

As this newsletter goes to press, the state budget is late again (for the 19th year in a row), and the Board of Education is putting the finishing touches on next year's school budget. The key question is, given the size of the state's fiscal crisis, can BH-BL weather the storm of rising costs, required retirement contribution increases, and massive cuts in state aid? The answer is a qualified yes.

The Board of Education has developed a comprehensive plan that cuts more than \$1 million from the BH-BL budget in ways that are designed to do the least harm to the instructional program. "Our approach is to cut things and keep people as much as we can," says principal Jennie Pennington. "Quality education depends more on reasonable class size and on quality staff than on equipment and non-instructional services."

If BH-BL voters **approve** the school budget on May 20, next fall you can expect a tax increase of 14.4% or less (depending on how much aid is restored by the Legislature – aid that the school board has pledged to use for tax relief). This would be a \$270 increase for a median-value home in the district assessed at \$110,000. You can also expect:

- No new programs, services, or staff anywhere in the district.

- Higher high school class sizes in some areas from an expected enrollment increase.
  - Higher fees for student parking, summer classes, driver education, and admission to more athletic events.
  - Increased costs to booster clubs to pay for non-league sports contests, plus more parent driving of athletes back from league contests.
  - Dramatic cuts in spending on staff development, equipment, furniture, and major maintenance projects.
- If BH-BL voters **do not approve** the proposed budget on May 20 and the district is forced to adopt a contingent budget, you can expect a tax increase of 9% or less (again depending on the Legislature) or \$170 for a median-value home. You can expect all of the above items **plus**:
- Much higher class sizes because 11 teaching positions would be cut across the district.
  - The loss of some high school electives because teachers are not available.
  - Some cuts in administrative, clerical, maintenance, bussing, and other support positions.
  - No spending for equipment, furniture and major maintenance projects.

*For more information on this evolving situation, see the district budget newsletter or visit [www.bhbl.org](http://www.bhbl.org).*

### Remember to Vote on May 20

## TEST SCHEDULE FOR REGENTS EXAMS & MORE

June 12, 13 & 16		Local exams
June 17	8:00 AM 9:00 AM Noon Noon	U.S. History Regents RCT in Writing Physics Regents Math A Regents
June 18	8:00 AM Noon	English Regents / Part 1 Global History Regents
June 19	8:00 AM 9:00 AM Noon Noon	English Regents / Part 2 RCT in Math Earth Science Regents Living Environment / Biology Regents
June 20	8:00 AM 9:00 AM Noon	Foreign Language Regents RCT in Global Studies Math 3 Regents
June 23	9:00 AM 1:00 PM 1:00 PM	RCT in U.S. History Intro. To Occupations exam RCT in Science
June 24	8:00 AM 9:00	Chemistry Regents RCT in Reading

### May

- 7** SAT exams, 8:00 AM
- 5-14** Advanced Placement exams
- 8-9** NYSSMA Majors Instrumental Festival
- 12** Meet the Candidates, 7:30
- 16** Half Day & Junior-Senior Prom
- 20** School Budge Vote, 7:00 AM - 9:00 PM, High School gym
- 22** High School concert, 7:30
- 23** Memorial Day ceremony at Freedom Circle, 9:15 AM
- 26** School closed for Memorial Day
- 28-29** High School Arts Fest: art displays & concert
- 29** Honors Night, 7:00

### Mark your CALENDAR



### June

- 4** High School Concert, 7:30
- 7** SAT exams, 8:00 AM
- 10** Senior Class Banquet
- 10** Board of Ed. Student Recognition, 7:00
- 11** Last day of high school classes
- 12-16** Local exams
- 17-24** Regents exams & RCTs
- 24** Graduation at SPAC, noon
- 26** Summer School registration, 8:00-3:00

## ▶▶▶ Important Dates for Seniors ◀◀◀

- ▶ **Graduation:** noon on Tuesday, June 24, Saratoga Performing Arts Center. Seniors may pick up an unlimited number of graduation tickets in the high school main office.
- ▶ **Mandatory graduation rehearsal:** 10:00 AM, Thursday, June 19. Caps and gowns can be picked up in HS cafeteria prior to the rehearsal.
- ▶ **Junior-Senior Prom:** Friday, May 16.
- ▶ **Honors Night:** Thursday, May 29.
- ▶ **Senior Banquet:** Saturday, June 7.



*No other end-of-year activities have been scheduled – any picnics, outings or "senior skip days" that you hear about are not authorized by the High School. Our seniors have worked hard and deserve to celebrate their accomplishments. The school's goal is to enable them to do this in safe and appropriate ways. Parents can help by reminding their children that graduation in particular is a formal event designed to honor ALL seniors. Frisbees, airhorns, beach balls, and other such items brought to graduation will be confiscated.*