



Adolescent Development Index

Middle grades students are going through dramatic developmental changes physically, emotionally, and intellectually. These research-based Adolescent Development essays explain the stages of young adolescent development as they pertain to each of the California Department of Education's (CDE) 12 Recommendations for Middle Grades Success.

Following each essay, the Teaching Tips and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

Access the essays for each recommendation using the links listed below.

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Adolescent Development

Recommendation 1—Rigor

Middle grades students are going through dramatic developmental changes physically, emotionally, and intellectually. This research-based Adolescent Development essay explain the stages of young adolescent development as they pertain to the California Department of Education’s Recommendation on Rigor.

Note: Following each essay, the Teaching Tips and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

In a classroom sit middle grades students. These students are going through drastic physical changes—much like a caterpillar turning into a butterfly—only the child does not have the opportunity to hide in a cocoon while undergoing these changes! What is observed is that these students can be moody, stubborn, and intensely emotional when either happy or sad. They are easily offended, easily embarrassed, and sensitive to criticism. Whether shy or not, they are definitely focused on the social interactions in the classroom. The teacher may find them acting out or using a lot of attention-getting behaviors.

Outside class, they are observed hugging, poking, and bumping into others either in friendly or aggressive ways. They are inconsistent in their behavior—happily on top of the world in one moment and in tears a half hour later. This description is familiar to adults working with young adolescents, but adults are unsure as to the reasons for these outward behaviors. How can what is going on inside be harnessed to challenge adolescents and enhance their success outside?

Research performed by Dr. Jay Giedd¹ shows us that there is a growth spurt in the brain that peaks around sixth and seventh grades and then gradually tapers off until around age sixteen.² The brain growth at this stage opens up areas for development, such as problem solving, reasoning, and organization.³ It is the last time in human development that this growth spurt will happen. The brain changes make the task of *learning* new ideas, knowledge, and skills *from experience* easier for young adolescents. At this age, they can still become very adept at those skills. It is not that older adolescents or adults cannot learn; it just becomes more and more difficult as a person ages.

The difficulty comes as a result of two processes: myelination and pruning. What children have learned becomes “hardwired” in the brain during adolescence.⁴ *Hardwire* means making the “information highways” in the brain (networks of brain cells created when humans learn something) *permanent* by a process known as myelination. Learning at a later age is also difficult because some brain cells that would give people the ability to learn other things easily have been eliminated because they were not used.⁵ This process gives rise to the phrase, “Use it or lose it:” what a person experiences determines which brain cells survive and which do not.⁶ For example, at birth, there are cells in the human brain that would enable a person to learn and speak Chinese. If a child does not hear and learn to speak the language, by around the age of 12, those particular brain cells are being eliminated. Learning Chinese later is not impossible, but it becomes increasingly difficult with age.⁷

Thus, middle grades is a crucial time to take advantage of this window of opportunity by building rigor and a variety of experiences into the curriculum. Exposure to new skills, activities, and patterns of behavior and thought actually change the structure of the brain.⁸ Adults who work with young adolescents have an opportunity to provide experiences that will increase their chance to perform well academically and meet their potential.

Teaching tips:

- Middle grades is an exciting time to teach and should not be downplayed simply because young adolescents are so easily distracted by their peers or off on an emotional roller coaster. Raleigh Philp, a former public school teacher, says that this is the time for educators to use all their enthusiasm and excitement about learning. “Now that we know how much the kind of hardwiring can make a difference in how the brain develops, it behooves us to make that much more of an effort to influence positively.” While middle

grades students might not seem interested, it is the teacher's task to package the curriculum so that the students are enticed to learn.⁹

- Tap into the multiple intelligences of your students: Chart birth rates in the United States or on each continent, listen to and write about bird songs, invent a game or visit a museum.¹⁰
- Instead of having students individually read a textbook chapter and then answer questions at the end, have different groups of students take different parts of the chapter and present the information in a song.¹¹
- Challenge students with assignments that promote higher level thinking skills, such as problem-based learning, research projects, experimentation, inquiry, authentic data analysis, persuasive writing presentations, dramas, composing music, and visual analysis.¹²
- Inspire students to analyze instead of merely reacting to or describing a situation by asking questions that force them to view a scenario in a new light.¹³
- Engage higher-order thinking skills by give students assignments to write metaphors and analogies.¹⁴
- Despite its reputation, the act of summarizing requires students to delete, substitute, and retain knowledge as they analyze information.¹⁵
- Identifying similarities and differences is another simple activity that has been shown to increase academic achievement on standardized tests.
- The teen brain is particularly susceptible to novelty. Throw novelty from all sides—vary the pace and tone of your voice, dress in bell bottoms, circulate around the room, use colored board pens, bring flowers into the room, or add the scent of lemon. Incorporate items in the learning adventure that represent or stimulate all the senses.¹⁶

Parenting tips:

- Help your child with homework by expressing the message that a challenge is good for the brain.
- Work on solving fun challenges with your child to model a “can-do” attitude.
- See the TCSII section on Homework help and academic expectations in Chapter 12 for more tips on supporting school work.
- Insist that your child get outdoor exercise. Exercise stimulates new cell growth in the brain and can increase mental abilities by 20 to 30 percent.¹⁷
- Encourage your child to try new and different things, but be flexible. Allow your child to change course if what is new does not suit them after experimentation.¹⁸
- All people are drawn to novelty, but when adolescents do something out of the ordinary, dopamine surges and streams throughout the brain, leaving them giddy with desire and wanting more. Allow your child to explore new hobbies and interests even though some will be out of the norm while others will be more traditional and socially acceptable, i.e., learning to cook.¹⁹
- Give your child opportunities to solve complex problems, such as “What should our family/community do about creating a green environment?”²⁰
- Encourage your child to enroll in challenging, but not frustrating, classes in school.²¹
- See the section on Parental, Family, and Adults-Who-Care Involvement in Chapter 12 for more tips on involving parents.

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Recommendation 1—Rigor Contents

Footnotes

¹Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*, New York: Anchor Books, 2003, pp. 19-20.

²David Walsh, *Why Do They Act That Way?* New York: Free Press, 2004, p. 44.

³Anthony W. Jackson, P. Gayle Andrews, Holly Holland, and Priscilla Pardini, *Making the Most of Middle School: A Field Guide for Parents and Others*. New York: Teachers College Press, 2004, p. 17.

⁴Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 51.

⁵David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, p. 24.

⁶David Walsh, *Why Do They Act That Way?* New York: Free Press, 2004, p. 35.

⁷Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, pp. 48-49.

⁸Virginia W. Berninger and Todd L. Richards, *Brain Literacy for Educators and Psychologists*. San Diego: Academic Press, 2002, p. 85.

⁹Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 72.

¹⁰Sheryl Feinstein, *Secrets of the Teenage Brain: Research-Based Strategies for Reaching & Teaching Today's Adolescents*. Thousand Oaks: Corwin Press, 2004, p. 27.

¹¹Anthony W. Jackson and P. Gayle Andrews, *Making the Most of Middle School: A Field Guide for Parents and Others*. New York: Teachers

College Press, 2004. p. 19.

¹²Sheryl Feinstein, *Secrets of the Teenage Brain: Research-Based Strategies for Reaching & Teaching Today's Adolescents*. Thousand Oaks: Corwin Press, 2004, p. 27.

¹³*Ibid.*, p. 26.

¹⁴*Ibid.*, p. 26.

¹⁵*Ibid.*, p. 26.

¹⁶*Ibid.*, p. 21.

¹⁷Sheryl Feinstein, *Parenting the Teenage Brain: Understanding a Work in Progress*. Lanham, Maryland: Rowman & Littlefield Education, 2007, p.73.

¹⁸*Ibid.*, p. 84.

¹⁹*Ibid.*, p. 83.

²⁰*Ibid.*, p. 86.

²¹*Ibid.*, p. 87.

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Recommendation 2—Instruction, Assessment, and Intervention

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Instruction, Assessment, and Intervention.

Note: Following each essay, the Teaching Tips and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

As a car mechanic needs to understand how the motor works in order to fix its parts, so a teacher needs to understand how the brain learns in order to teach. Because the cognitive development of young adolescents is in the midst of a lot of changes, teaching this age group is very challenging.

Thinking matures

Cognitive development means the way the mind goes through stages of thinking. The late Swiss psychologist Jean Piaget described young adolescent minds as shifting from concrete thinking to abstract thinking. When people think in abstract terms, they are thinking about ideas, principles, and symbols that represent them. Concrete thinking uses objects, such as persons, places, or things. Children think with concrete objects in mind. Young adolescents think concretely and are phasing into abstract thinking.

As middle grades students reach puberty, they can begin to understand democracy, Newton's laws of physics, and algebraic letters representing unknown numbers. The difficulty for teachers of middle grades is that this transition is not uniform among the students. In a classroom of 30 students, each child might be at a different stage of development. There are also daily fluctuations of development within an individual.¹ For example, in the morning, a student might be using abstract thinking and by the afternoon, be back into concrete thinking. It takes training and focused attention to bring understanding to each student in middle grades. Young adolescents at this stage of development especially need to be challenged with higher-order thinking. Using analogies that bridge the gap between concrete and abstract thinking helps students make this transition.

In the middle grades, as the brains and bodies of boys and girls change because of puberty, teachers need to be aware that every day, every hour, every minute brings about changes in behavior. Expressed more overtly by boys, this tendency toward rapid mood and behavioral changes has been the undoing of many new teachers. More than anything else, it requires extreme patience. Successful middle grades teachers are a unique breed who have learned that boys and girls will be different almost every day.²

Paying attention

One of the topics of brain research that affects classroom learning came to light in the 1990s. During that fertile time for brain research, scientists learned more about what makes the brain pay attention. They found that emotion drives attention, which drives learning, memory, problem solving, and almost everything else people do.³

Deep inside the brain are some structures that, collectively, are called the limbic system. They generate emotion and process memories.⁴ Two of the structures are right next to each other. One has a lot to do with influencing emotion, especially aggression and fear (the amygdala), and the other with packaging up learning and putting it into long-term memory (the hippocampus). When the amygdala is activated, the brain says, "Pay attention to this!" So when a teacher incorporates emotion to the lesson, the brain sends the same message: "Pay attention to this!" The emotion is then "tagged" with the information that the student is learning. This process makes it very likely that this information will be remembered. Research has found emotions are crucial to memory because they hold the key to the storage and recall of information.⁵

For middle grades students, the role of emotions is especially pertinent. Hormones are surging through the brain, which has a dramatic

effect on the limbic system. The result is an intensification of emotions that causes the young adolescent to seek avenues where these emotions can be released. By tapping into this warehouse of emotions, teachers can help them pay attention to and remember what is being taught.

Examples of how emotions can be used to enhance learning might include:

- Humor
- Active learning experiences (i.e., speaking, movement, manipulating objects, writing)
- Differentiating instruction
- Piquing the child's curiosity with realia
- Interaction with peers
- Relevance to their personal lives
- Project-based activities
- Solving real-life problems
- Self-selected projects or papers
- Anything to do with helping them survive in *their* world⁶

See the California Department of Education's Recommendations on Relevance and Relationships for more information about how teachers can make emotional connections.

Change makes the brain pay attention. At any time, the human senses are detecting many signals—sirens, pet cage odors, the movement of a person close by, the sound of a zipper of a backpack, the sight of a friend's name blinking on a cell phone. People are constantly bombarded with sights, smells, and noises. If sensory input is the same minute after minute, the brain stops paying attention to it. This phenomenon is called habituation. For example, when people put on cologne, they enjoy the smell, but after a little while they cannot detect it. Someone else walking by will notice it, but the user's brain has become used to it and has stopped paying attention to it. Without habituation, the brain would be on overload trying to pay attention to every little thing the senses detect every second of the day. When the same stimulus is detected over and over, the brain goes into a "sleep mode" as a computer does when it is not used for a certain period of time. The single most important thing a teacher must do is to manage the attention, or learning state, of his or her students so that the brain does not go into sleep mode or shift its attention.⁷ Research says that 20 minutes is about as long as a person will give attention to any one thing (without further motivation) before boredom sets in. For middle grades, the time is lessened to a maximum of 15 minutes.⁸

Middle grades students lack not only the ability to keep focused for a longer period of time; they also lack "brakes" to keep their attention from jumping from one thing to another. The reason is that when puberty begins, the part of the brain that is responsible for holding a person's attention (the prefrontal cortex) is undergoing reorganization. In addition, the part of the brain that is responsible for impulsive, emotional activity (the amygdala) is being overly activated by hormones.⁹ In essence, there is a role reversal so the amygdala becomes dominant and the prefrontal cortex takes a back seat.¹⁰ The following scenario is an example of role-reversal and how the amygdala takes control:

The students are quietly listening to the instructor teach a lesson. A student leans over and grabs a pencil off another's desk. Instead of quietly asking why the person took the pencil or quietly requesting that the person return it, the student whose pencil was stolen unleashes his or her frustration. The student jumps up, grabs the other student who took the pencil, and yells, hits, and calls names.

Another change that makes paying attention difficult is the fluctuation of basal metabolism. This fluctuation causes students to have spurts of extreme energy and then times of extreme lethargy. At one end the students need physical activity to release the energy, and at the other students need to have periods of rest and snack times. However, their ravenous appetites may overtax the digestive system with large quantities of improper foods.¹¹ Adults who are sensitive to young adolescent physical development make adjustments of activity to respond to adolescents' physical needs.

Teaching tips:

Thinking matures:

- Think of ways to present information more visually, aurally, and physically, including for example, storytelling, manipulating material or incorporating PowerPoint presentations or movement.¹²
- Young adolescents need experience analyzing, applying, and adapting new information and skills.¹³
- Using the verbs in Bloom's Taxonomy (DOC; 24KB; 1p.) in the analysis, synthesis, and evaluation columns, create questions and activities that engage abstract thinking (in the frontal cortex of the brain).¹⁴

- Use inductive reasoning (Outside Source) by letting students discover what examples have in common before a definition is provided.¹⁵

Paying attention:

Students have a difficult time keeping their minds focused and their emotions in control. This is caused by the underdeveloped frontal cortex. Because the immature brain does not do a good job of putting on the brakes, the brain responds to more than it should. "In other words, if you can't inhibit your brain from responding to every urgent e-mail from your friends, you'll forget your homework again."¹⁶

- Change the pace, activity, and instruction frequently so that boredom or impulsive behavior does not take students off task. Humor can be an excellent change agent.
- Allow for frequent stretches and incorporate movement into the lessons.
- As young adolescents become more preoccupied with their body image, help them keep focused on the work by assigning group presentations rather than presenting alone.
- Give boys more space to do their work and give them more opportunities for movement.
- Help students remember by having them put the information to music or mnemonics.
- Bring closure to a lesson at the end of the day by asking students individually to tell you one new thing they learned during the day (so they can be ready to tell their parents). Also, have students tell you what their homework assignment is by showing you the materials needed for it as a ticket to exit the classroom.
- As a fun way to help students remember to bring homework or other items back to school, have them draw a string with a bow on a finger using a pen.
- Emotions are crucial to memory because they facilitate the storage and recall of knowledge and information.
 - ◆ Using thematic teaching, integrating subjects across the curriculum, and making learning relate to real life are ways teachers can tie in material with an emotional context thereby helping students remember what they are learning.¹⁷
- Because the emotion and memory centers are linked together, emotional experiences can create strong memories.
 - ◆ Use positive emotions to enhance memory by bringing in a pet, starting class with a joke, or assigning a long-term community project where students connect with people.¹⁸
- Emotion is the driving force for attention and drives every other aspect of learning, memory, and problem solving.
- Engage students' attention with games, project-based learning, role playing, simulations, taking field trips, or taking virtual field trips on the Internet.¹⁹

Parenting tips:

Thinking matures:

- Due to their new ability to think for themselves, young adolescents often reject advice from adults. In calmer moments, parents can explain their thoughts and by doing so, are modeling critical thinking.²⁰
- Encourage and model regular exercise for your child since it stimulates new cell growth in the brain and can increase mental abilities 20 to 30 percent.²¹

Paying attention:

The connection between the amygdala and the frontal lobes is just beginning to strengthen. In the meantime, the emotional part of the brain is in the driver's seat. It's not the adolescent's fault that the brain isn't under control, but it is his or her responsibility to get it under control and it is the parent's responsibility to help.

- Encourage teens to think before they speak or act.
- Be specific about what is tolerated and what is not.
- Do not try to reason in the middle of an argument. Be patient and save the conversation for when things are cool and calm.²²

Being forgetful, disorganized, and late for everything are related to the new development and capabilities going on in their brains. Young adolescents can forget immediately what parents or teachers just said to them. Perhaps the most frustrating to adults is the adolescents' ability to forget homework.

- Find a balance between picking up the slack and letting them suffer the consequences when projects or homework are forgotten at home.
- When your child does remember something important, praise him or her. (Say two praises each day.)²³
- Help them keep a calendar and use a school planner.
- Work with your child's teachers to sign off on the school planner on a daily or weekly basis.
- Eliminate distractions during regularly scheduled homework time each day.
- Be sure to schedule snack and stretch breaks after every 20-30 minutes of focused homework time.

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Footnotes

¹ *Caught in the Middle: Educational Reform for Young Adolescents in California Public Schools*. Sacramento: California Dept. of Education, 1987, p. 145.

² Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*, Thousand Oaks: Corwin Press, 2007, p. 33.

³ *Ibid.*, pp. 94-95.

⁴ David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, p. 18.

⁵ Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 102.

⁶ Middle Grade Task Force Report, p. 144.

⁷ Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 132.

⁸ *Ibid.*

⁹ *Ibid.*, p. 65.

¹⁰ Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. New York: Anchor Books, 2003, p. 28.

¹¹ *Caught in the Middle: Educational Reform for Young Adolescents in California Public Schools*. Sacramento: California Dept. of Education, 1987, p. 145.

¹² Janet N. Zadina, *Six Weeks to a Brain-Compatible Classroom*. Brain Research and Instruction, 2008, p. 35.

¹³ Jackson, Anthony W. and P. Gayle Andrews with Holly Holland and Priscilla Pardini, *Making the Most of Middle School: A Field Guide for Parents and Others*. New York: Teachers College Press, 2004, p.48.

¹⁴ Janet N. Zadina, *Six Weeks to a Brain-Compatible Classroom*. Brain Research and Instruction, 2008. p.29.

¹⁵ *Ibid.*, p. 59.

¹⁶ Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. New York: Anchor Books, 2003, p. 29.

¹⁷ Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, pp. 102-104.

¹⁸ Janet N. Zadina, *Six Weeks to a Brain-Compatible Classroom*. Brain Research and Instruction, 2008, p.69.

¹⁹ Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 104.

²⁰ *Getting Ready for high School, Los Angeles: Los Angeles County Office of Education, 2008, p. 7.*

²¹ Sheryl Feinstein, *Parenting the Teenage Brain: Understanding a Work in Progress*. Maryland: Rowman & Littlefield Education, 2007, p. 73.

²² *Ibid.*, p. 65.

²³ *Ibid.*, pp. 84-85.

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Recommendation 3—Time

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Time.

Note: Following each essay, the Teaching Tips, Parenting Tips, and External Resources demonstrate how to put the developmental-based strategies into action in the classroom and at home.

Time changes for young adolescents

With the onset of puberty, an adolescent's biological clock shifts one hour or more later than those of adults and children. The biological clock, or circadian rhythm, controls the cycles of some basic functions (for example, sleep, being alert, body temperature, and pulse rate). In the sleep-wake cycle, young adolescents do not begin to feel tired until later, sometimes as late as 11 p.m. That is because the hormone (melatonin) that is released at night to cause people to feel sleepy is delayed in adolescents. The deeper adolescents go into puberty, the longer sleep is delayed.¹ A child may go to bed when told to do so by the parent, but then lie awake in bed unable to get to sleep initially. In the morning, the awake-time is also delayed. Research has discovered that the adolescent brain needs nine and a half hours of sleep at night.² If middle grades students need to be awake between 6 a.m. and 7 a.m. to be ready for school and they have not been able to fall asleep until late, they build up a sleep deficit. Parents wonder why their child sleeps until noon on Saturday. There is a lot of sleep to make up! However, the Saturday catch-up does not help students when they need to be alert for an early mathematics class the following Monday.

Because middle grades students are at varying stages of adolescent development, their alertness and readiness to learn in school will vary as well. Teachers must be aware of which students will be alert and ready to learn in the morning and those who will be struggling just to be awake.

Understanding the relevance of information and rehearsing as keys to memory retention

Students in the middle grades are experiencing the most intensive growth period since the first two years of their lives. This tumultuous time is filled with conflicting thoughts, emotions, and needs. Their behavior is inconsistent, vacillating between wanting to hide in a corner and feeling on top of the world. The hormonal changes and growth spurts leave them feeling excited but perplexed and frightened as to what is happening to them. They are fiercely drawn to their peers and would like their parents to go away . . . but no! Stay!

With so much going on in a young adolescent's world, it is a challenge for middle grades teachers to get their students focused and in a state where they can learn. The brain is picky about what it chooses to learn (store in long-term memory). Priority for long-term memory is given to information that:

- Is important for survival.
- Triggers emotions.
- Is personally interesting (motivating).
- Has sense and meaning.³

Grammar, the date the Declaration of Independence was signed, parts of an animal cell, and how to work an algebraic equation generally do not meet the criteria. To make curriculum palatable for the brain, teachers need to take time to explain why this information will be important for their lives, tie the information to emotion, mold the information to make it personally interesting, and relate the information to what is already known and relevant to give it sense and meaning. It is important for teachers to know the social and psychological dynamics of young adolescents so they understand what is important and relevant to their students. Knowing individual interests shines a light on what is motivating a particular student.

Young adolescents need time to go over and over information. Their minds are being flooded with new levels of hormones, and parts of the brain are undergoing major reorganization.⁴ Young adolescents are generally under stress of managing their social lives by trying to “fit in” and fearful that they might do something embarrassing. They are watching their peers looking and acting more adult-like and wanting the same for themselves. In class, their eyes are on the teacher, but their minds may be a thousand miles away. Sometimes they may not “hear” the information because they are distracted. At other times, they may just need time to rehearse—or repeat—the information to build sense and meaning.

The process of transferring information to long-term memory takes repetition. The longer an item is rehearsed, the greater the probability that retention in long-term memory will occur.⁵ When new information is presented to students, it is temporarily tagged in the brain, like a barcode. (This is done by the hippocampus using existing neuron connections.) Many rehearsals are necessary in order for the brain to rewire itself and make the information permanent. Every time students rehearse the information, the brain grows a little this way, a little that way, a connection is made here, a connection is broken there. It is a slow process! Eventually, after multiple changes, an optimal set of connections is constructed.⁶ Research is showing that much of this rewiring process happens during sleep. This could be a reason why rehearsing information before sleep helps to recall the information better the next day.

Teaching tips:

Time changes for young adolescents

- Encourage parents to be diligent about making sure their children get the proper amount of sleep at night. Tell them that during sleep the brain works on storing new information into long-term memory.
- Remind parents that as their children get deeper into puberty, sleep patterns change. Young adolescents will require more sleep and their sleep cycle moves ahead to a later time (Related Links).
- Give parents a means (Web site or planner) to be able to review your lessons each night whether you have assigned homework or not. Remind parents that the more their children can review new information, the more quickly they will learn it permanently.

Understanding the relevance of information and rehearsing as keys to memory retention

- Give illustrations to show students that the knowledge to be learned is worthwhile.
- Study how to help students rehearse information in a variety of ways. The wide range of intellectual growth at this age supports the need to take the time to reach each student’s level of understanding.
- Build repetition (or rehearsal) of information into lessons so that the knowledge becomes automatic. Repeating information for one or two days does not work; the brain needs many repetitions to build neuronal networks in the brain and store the information in long-term memory. Some ways to repeat the presentation of information may include:
 - ◆ Teacher pronouncing key words.
 - ◆ Students reading the material as homework.
 - ◆ Teacher presenting a slide show.
 - ◆ Students giving oral explanations.
 - ◆ Students creating a graphic organizer.⁷
 - ◆ Students teaching the lesson to other students.⁸ Students talking about what they are learning creates sense and meaning, a necessary ingredient for long-term memory. Every time they talk about it, they relearn the material.
- Information to be remembered exactly as presented (spelling, poetry, list of battles, multiplication tables) is called rote rehearsal.
 - ◆ Repeat aloud one set of items at a time over and over.⁹
- Information to be remembered that is more complex and requires the learner to make connections and to form associations to gain sense and meaning is called elaborative rehearsal.
 - ◆ Paraphrasing: Students orally restate ideas in their own words.
 - ◆ Selecting and Note Taking: Students review material and decide which portions are critical and important (using teacher’s criteria).
 - ◆ Predicting: After studying the content, students predict what will follow and what questions the teacher might ask about it.
 - ◆ Questioning: After studying the content, students generate questions about it.
 - ◆ Summarizing: Students reflect on and summarize in their heads the important material or skills learned in the

lesson. This is often the last and critical stage where students can attach sense and meaning to the new learning.¹⁰

- Homework is helpful when it is designed to review the lesson. Allowing students to do their homework in class deprives them of needed rehearsal at home. Remember, rehearsing at least an hour before sleep assists in storing new information into memory. Some fun ways for students to review information may include:
 - ◆ Retelling the lesson to a parent where the parent takes notes and sends them back with the student.
 - ◆ Creating a picture book of the new vocabulary words.
 - ◆ Creating flashcards of important points.
 - ◆ Writing questions with which the students could quiz their classmates.
 - ◆ Creating a picture book of photos from magazines or the Internet that explain the lesson.
 - ◆ Rereading the material or chapter to a sibling or parent.
 - ◆ Drawing cartoons of the procedure or story in the lesson.
 - ◆ Making up a song or poem about the lesson.

Parenting tips:

Time changes for young adolescents

- Monitor how much sleep your child is actually getting; do not be surprised when your child's biological clock shifts.
- Make sure your young adolescent gets nine or more hours of sleep each night. Adequate sleep is vital to the memory storage process. Information learned during the day is processed for long-term memory during sleep, specifically during rapid eye movement (REM). This connection between sleep and learning makes getting the right amount of sleep each night extremely important for your child. Otherwise, the memory storage process is disturbed and cut short.¹¹
- Even though an adolescent's sleep cycle shifts to a later time and the need for extra sleep increases, schools generally have very early start times. Begin discussions with your school board about starting school later. There is considerable research proving that students do better in school when school starts later that will support your stand!¹²
- If your child is sleep-deprived, make gradual changes in his or her sleep patterns by 10 minutes per night.
- To help your child fall asleep:
 - ◆ Use calming activities that are relaxing mentally and physically: reading books, listening to music, or journaling.
 - ◆ Keep her or his room as dark as possible with heavy shades and eliminate the nightlight. Melatonin, the hormone in the brain that causes drowsiness, is secreted every night when there is complete darkness and is inhibited when there is light.¹³

Understanding the relevance of information and rehearsing as keys to memory retention

- Review lessons from the school day with your child.
- If your child says, "I don't have any homework," or "I did it in class," make that an opportunity to review the homework or the day's lessons.
- Review your child's lessons no less than one hour before bedtime. This assists in processing the new information into long-term memory. When important information is reviewed before sleep, it is more likely to be remembered the next day during a test.¹⁴
- The more your child reviews the lessons, the more the brain has a chance to make long-term storage into memory possible. A great way for your child to review lessons is for him or her to become the teacher and you the student.
- Create fun ways for your child to review new information by tying the material to what interests him or her:
 - ◆ Art: Draw pictures that illustrate the information.
 - ◆ Sports: Create a game out of shooting basketballs—for every basket missed, some information must be stated.
 - ◆ Computer: Create a collage of Internet information on the subject.
 - ◆ Games: Create a bingo game using vocabulary words instead of the letter plus number (e.g., B4). If the child has the vocabulary word on his or her card, he or she must give the definition before placing a token on the spot.
 - ◆ Music: Create jingles, songs, or lyrics that go with the lesson's information.

- ◆ Reading: Write a short story using facts and vocabulary from the child's lesson.
- ◆ Shopping: Turn math problems into strategies of buying and selling their favorite items.

Related Links

Adolescent Sleep Patterns: Biological, Social, and Psychological Influences. (PDF; 90KB; 8pp.) (Outside Source) by Mary Carskadon. New York: Cambridge University Press, 2002.

"Pointers for Parents," (PDF; 3MB; 30pp.) (Outside Source) in *Sleep Needs and Patterns: Research Report and Resource Guide*. National Sleep Foundation, 2000, 11-12.

Reiss, Tammy. "Wake Up Call on Kids' Biological Clocks," *NEA Today*, Vol. 16, February 1998, No. 6. (Outside Source).

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Recommendation 3—Time Contents

Footnotes

¹Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, 81.

²David Walsh, *Why Do They Act That Way?* New York: Free Press, 2004, 179.

³David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, 43. ⁴Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. New York: Anchor Books, 2003, 21.

⁵David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, 65.

⁶Jeff Harrison, "'Speed of Thought' Guides Brain Memory Consolidation," (Outside Source) UA News, University of Arizona, (November 2007).

⁷Janet N. Zadina, Six Weeks to a Brain-Compatible Classroom. *Brain Research and Instruction*, 2008, 23.

⁸Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, 16.

⁹David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, 118-119.

¹⁰Ibid.

¹¹David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, 102.

¹²Ibid., 177-122.

¹³Sheryl Feinstein, *Parenting the Teenage Brain: Understanding a Work in Progress*. Maryland: Rowman & Littlefield Education, 2007, 79-80.

¹⁴Ibid.

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Adolescent Development

Recommendation 4—Relevance

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Relevance.

Note: Following each essay, the Teaching Tips and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

As young adolescents emerge from the cloud of childhood, a world comes into view that is new and exciting for them. They are curious about what is going on outside of their childhood sphere, and they want to know how they fit into it. Middle grades educators have a great opportunity to fill their students' curiosity with deeper knowledge in all subjects. Because of new growth in the brain, there is a window of opportunity for young adolescents to more easily learn new ideas, knowledge, and skills from experience.¹ Making the content relevant helps the young adolescent learn.

Relevancy ties information to the brain's primary role: survival. "Learning is a biological process for survival." (Dr. James Zull, Case Western Reserve University.) The brain will pay attention to what is important for survival. In *Adolescent Characteristics (Part 1): The Survival Instinct and the Development of the Brain*, Dr. Janet Zadina explains that it is the survival instinct that drives what people pay attention to and how we learn.² If there is a bully in the classroom, a student is more likely to pay attention to what the bully is doing rather than to the teacher's lesson. So, the brain seeks out what is important, which might not be what educators deem important, and favors a survival mentality.³

Learning that is connected to survival activates a part of the brain called the reward pathway. Solving problems and successful thinking brings pleasure, as when students experience those "aha!" moments.⁴ To ensure that young adolescents experience the pleasure of learning, the material needs to be meaningful and the learning effortful.⁵

- New knowledge becomes meaningful when the information relates to something that the learner already knows.
- New knowledge perks the attention when it is relevant to the learner.
- The more relevant the information, the more meaningful it becomes.
- The more meaningful the information, the more likely it will be stored into memory (learned).
- Working on problems that are at the right level of difficulty is rewarding.
- Working on problems that are too easy or too difficult is unpleasant.⁶

Problems can be made interesting by making the information relevant with "real-world" problems. As middle grades educators know, ensuring student academic success involves understanding the world of their young adolescent students and how young adolescents survive socially, emotionally, physically, and even economically. Applying class lessons to their students' "world" through real-world connections and meaningful participation will pique the adolescent brain's attention for survival. At the same time, real-life applications help expand the young adolescent's growing cognitive abilities found in the part of the brain that is least developed at this age—the frontal lobe.

The frontal lobe in the human brain enables a person to plan, analyze, evaluate, reason logically, anticipate consequences, delay gratification, solve problems, and make sound decisions. The frontal lobe develops with experience so giving middle grades students opportunities to exercise these critical thinking abilities significantly helps in the development of the frontal lobe.⁷ For instance, when staff members create a college-going culture on campus, young adolescents are able to practice goal setting; at the same time, their interest is heightened because the information is related to surviving in the real world. In her research on parental involvement in middle grades schools, Dr. Nancy Hill found that student achievement increased when parents discussed plans for the future that fostered career pathways or linked what their children were learning in school to real-world activities and jobs.⁸

Teaching tips:

- The challenge for middle grades teachers is understanding both the prior knowledge of middle grades students as a whole and each individual's prior knowledge. Ask students to talk about their own experiences as they relate to the lesson. This helps the teacher understand how the student is relating to the information, and it helps the student to understand the relevance of what is being taught.⁹
- Make sure students have the appropriate background knowledge; if not, the question posed will quickly be judged as "boring." If the students lack the background knowledge to engage with a problem, save it for another time when they have the knowledge they need.¹⁰
- Develop cross-curricular lessons with colleagues. Studies have found that the brain seeks meaningful organization and categorization of information. Going to six or seven periods of unrelated classes each day translates to meaningless information for the brain.¹¹ Be interactive with students in ways they find engaging;¹² incorporate emotionally engaging activities that alert the brain that the information is important so students will more likely pay attention. It also increases their attention span.
 - ◆ Once you have your students' attention, make sure they are focusing and thinking about the particular meaning of the material you want them to remember.¹³
- Weave in real-world problems or applications to standard lessons.
 - ◆ Incorporate project-based learning. This occurs when students create their own projects, including the content, research, and project structures that really interest and engage them. The world is the curriculum, and projects and technology are tools for inquiry, exploration, creativity, and understanding.¹⁴ For example, tie math into budgeting for a shopping spree at the mall.
 - ◆ Build in exploration and development of career interests and choices. Include a variety of activities and roles they may play as they learn standards-based content.¹⁵
- Create meaningful participation.
 - ◆ Incorporate service-learning projects. This integrates students' academic learning with service that meets actual community needs.
 - ◆ Role playing helps students use real-world scenarios to draw out and recall information and place it in context.¹⁶
 - ◆ Collaborative learning sparks the reward pathway.
 - ◆ Use storytelling and narratives. Storytelling is ancient and originally served to pass down information. This sparks the survival instinct for the brain.

Parenting tips:

- Volunteer with your child so he or she learns about community issues and needs while exploring possible career options.
- Discuss your expectations of your child's academic achievement as it relates to career possibilities.
- Take your child to work with you.
- Discuss the relevance of your culture to the history or literature lessons your child is studying.
- Take your child to your local public library media center to use educational technology. Visit local museums together to explore history, science, and culture.
- Discuss different learning strategies that might help your child learn more efficiently at school. Monitor homework, exams, and other assignments.¹⁷
- Teach your child to play cognitively stimulating games such as chess, Scrabble, or dominoes.¹⁸

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Recommendation 4—Relevance Contents

Footnotes

¹Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. New York: Anchor Books, 2003, 17.

²Janet Zadina, "Adolescent Characteristics (Part I): The Survival Instinct and the Development of the Brain" Taking Center Stage—Act II.

³Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, 99.

⁴Daniel T. Willingham, "Why Don't Students Like School?," *American Educator*, Vol. 33, No. 1 (Spring 2009), 6.

⁵Janet Zadina, "Adolescent Characteristics (Part I): The Survival Instinct and the Development of the Brain" Taking Center Stage—Act II.

⁶Daniel T. Willingham, "Why Don't Students Like School?," *American Educator*, Vol. 33, No. 1 (Spring 2009), 7.

⁷Janet Zadina, "Adolescent Characteristics (Part I): The Survival Instinct and the Development of the Brain" Taking Center Stage—Act II.

⁸Nancy E. Hill and Diana F. Tyson, "Parental Involvement in Middle School: A Meta-Analytic Assessment of the Strategies That Promote Achievement," *Journal of Developmental Psychology*, Vol. 45, No. 3, 758.

⁹David A. Sousa, *How the Brain Learns (Third Edition)*. Thousand Oaks: Corwin Press, 2006, 72.

¹⁰Daniel T. Willingham, "Why Don't Students Like School?," *American Educator*, Vol. 33, No. 1 (Spring 2009), 12.

¹¹Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand

Oaks: Corwin Press, 2007, 100.

¹²Daniel T. Willingham, *Why Don't Students Like School? A Cognitive Scientist Answers Questions About How the Mind Works and What it Means for the Classroom*. San Francisco: Jossey-Bass, 2009. 50.

¹³Ibid., 49.

¹⁴Allan Wigfield, Susan L. Lutz, and A. Laurel Wagner, "Early Adolescents' Development Across the Middle School Years: Implications for School Counselors," *Professional School Counseling*, Vol. 9 (December 2005), 114.

¹⁵Ibid.

¹⁶David A. Sousa, *How the Brain Learns (Third Edition)*. Thousand Oaks: Corwin Press, 2006, 48.

¹⁷Nancy E. Hill and Ruth K. Chao, *Families, Schools, and the Adolescent: Connecting Research, Policy, and Practice*. New York: Teachers College Press, 2009, 132.

¹⁸Ibid.

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Adolescent Development

Recommendation 5—Relationships

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Relationships.

Note: Following each essay, the Teaching Tips and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

Staying connected to young adolescents

Middle grades students need guidance and support even though they appear to be pulling away. At a crossroad in life, young adolescents are shifting and establishing new types of relationships. They are on a journey toward independence and, as part of that process, they will pull away from parents. Often times, just being seen with a parent is terribly embarrassing. Young adolescents might also want to distance themselves from teachers. However, this pulling away does not mean that adults have become less important. While attachment to peers is a hallmark of being a young adolescent, the decisions they make as to what type of friends they will associate with and what type of person they want to be can be altered by caring adults. Therefore, both parents and educators should not give into their “flight” away from adults. Young adolescents still need both guidance and limits as well as adult acceptance. Contrary to the behavior observed, they want their parents and teachers to be a part of their lives.

It is important to build relationships even though young adolescents do not seem interested. Research on relationships shows that there is a correlation between student academic success and caring teachers and parents. Learning requires effort and there is little **intrinsic** motivation¹ for doing schoolwork. However, one of the best predictors that students will make the effort and be engaged in school is the relationships they have with their teachers² and the involvement their parents have with the school. One research study found that students, whose parents stayed connected to their children and their schools, were likely to have higher engagement and better academic performance.³ Dr. Kathryn R. Wentzel has researched relationships between teachers, parents, students and their peers at the middle grades level for over 20 years. She found that supportive teachers affect student interest in class work and their willingness to follow the class rules. In addition, positive teacher-student relationships in the lives of young adolescents affect their motivation and interest in academic activities.⁴

In order to support young adolescents, adults need to understand why they behave the way they do. Research leaves little doubt that caring relationships and student success go hand in hand; but, as adults see young adolescents trying to distance themselves, they too may want to become more distant. Sometimes described as “hormones in sneakers,” these young adolescents can be difficult to relate to and hard to understand. Their behavior can be problematic—unpredictable, emotional highs and lows, and acting very immature for their age. The boys run around chasing, hitting, or throwing loaded backpacks at each other. For no apparent reason, they make derogatory remarks about another’s mother, which initiates some type of physical or verbal conflict. The girls are best friends one day and the next they are spreading vicious rumors about each other. Young adolescents are laughing and fun-loving one minute and in the next, screaming and shouting in anger. Some adults just want to close their eyes hoping the young adolescents will pass through this “squirrely” stage quickly. There are, however, explanations as to why they have erratic behavior. It all makes sense when adults understand what is going on in the young adolescent brain. This understanding is important because adults will better know how to support young adolescents as they go through the physical and cognitive changes.

Understanding adolescent behavior in building better relationships

The early adolescent male

Young adolescent boys’ main growth hormone is testosterone. During puberty, this hormone increases production as much as 18 times. There can be as many as five to seven surges of testosterone every day. During a hormonal surge, testosterone stimulates the amygdala.

The amygdala is a structure in the emotional center that contains the “fight or flight” response. (For example, at the sight of a rattlesnake the amygdala triggers the production of adrenaline to either fight the enemy with superman strength or run away at lightening speed.⁵) This structure has receptor stations that allow testosterone to “dock” there. Although testosterone does all sorts of good things, when it “docks” or connects with the amygdala, it is likely to trigger surges of anger, aggression, sexual interest, dominance, and territoriality—making boys “powder kegs.”⁶ This behavior might be difficult to find “endearing,” however, understanding the origin of the behavior may help adults relate to boys better and help them by creating safe situations where that tension can be released. For instance, when you see boys chasing and trying to hit each other, instead of just saying “stop,” suggest a safe, physical game to play.

The early adolescent female

Girls, too, have receptor stations for their predominant hormone estrogen. It “docks” in a structure in the brain’s emotional center known as the hippocampus. The hippocampus has much to do with memory and this might give girls an advantage in school when information needs to be memorized.⁷ For example, it could be why sixth-grade girls are so much better at memorizing spelling words.⁸ However, it is not that simple for girls; estrogen also causes serotonin to fluctuate. Serotonin is a chemical in the brain that influences mood and tends to keep a person emotionally balanced. During puberty, the surges and fluctuations of hormones are intense, and the connection with estrogen and serotonin may explain the dramatic mood shifts in girls, especially depression. They may be on the phone laughing one moment and then in the next sobbing over a math problem. This erratic behavior is not easy on adults and hard to find “endearing.” Adults might shake their heads and want to walk away from the “drama queens,” but this is a time to stay connected and give them the support needed.

Interacting with young adolescents

Nurturing students in elementary school is the norm, but traditionally in middle grades, the classroom setting has been more about control and discipline in a less personal environment.⁹ Many educators have believed that middle grades is a time for the students to grow up and act more adult-like. The belief follows that this maturation will occur by withholding nurturing and strictly focusing on the subject matter and the responsibility of getting the coursework completed. However, when students sense that a teacher does not care about them, they stop caring about learning in that class. There is a plethora of research over the years that clearly shows that when a teacher builds positive relationships with students and cares about them, the students:

- are more committed to school and its values¹⁰
- are more engaged in the class lessons
- are more motivated to do school work
- have higher test scores
- have higher grade point averages,
- have fewer absences
- have fewer discipline issues¹¹
- will have a greater probability of graduating high school with their peers on time.¹²

Caring taps into the emotion centers in the brain that cause the brain to pay attention. Research on relationships suggests that when students feel comfortable and accepted when they enter the classroom, internal chemical responses happen that make them more adept at solving problems in potentially stressful situations.¹³ When teachers care for students, they give students motivation to do well in school. Caring teachers at this age, however, is not defined in the same way as in the elementary grades. Adolescents think of caring teachers not as being cuddly or being best friends, but by communicating directly and regularly with them about their academic progress and making sure they understand what is being taught.¹⁴ Adolescents report that they work harder for teachers who treat them as individuals and express interest in their personal lives outside of school.¹⁵ A teacher’s willingness to listen to young adolescents is key to being a successful teacher. Middle grades students know they are valued by a teacher’s smile and by how much teachers spend their precious time with them.¹⁶ It is not easy striking the right balance between being approachable without being their friend—it is the challenge and art of teaching!¹⁷

When they care for individual students, teachers can change the course of a child’s life and set him or her on a more successful pathway in middle grades, high school and beyond. One of the main reasons reported for students dropping out of high school was that their teachers did not care about them.¹⁸ In Robert Balfanz’ research, the fundamental finding was that in high-poverty environments a student’s middle grades experience strongly impacts the odds of graduating from high school.¹⁹ “It is during the middle grades that students either launch toward achievement and attainment, or slide off track and placed on a path of frustration, failure, and, ultimately, early exit from the only secure path to adult success.”²⁰ How a teacher relates to students in middle grades can have more of an effect on student learning than what is being taught!

Understanding peer relationships

Young adolescents experience an increasing focus on friendships and peer acceptance. These two are distinct in that peer acceptance represents social status or popularity within a large group and friendships represent relationships based on mutual respect, appreciation, and liking.²¹ Friendships in young adolescents are more supportive and share more common feelings than those they had in elementary school.

The more mutual friends that a student has, the more likely he or she is to be accepted by the larger peer group. Both are good for self-esteem and being more balanced psychologically. Research also shows that friendships influence academic achievement (Wentzel, Barry, & Caldwell, 2004).

Peers as emotional support

The negative impact when young adolescents have difficulties in developing or maintaining friendships are aggressive behavior, low academic achievement, and experiencing loneliness and depression. It should be apparent to all that developing peer relationships at this time is helpful to avoid these effects, but also to assist in this period of dramatic physical and cognitive changes. Some young adolescents react to these changes with distress, anxiety, depression, and alienation from peers and school, and then may engage in high-risk behaviors.²³ Concerned adults can be of great help, but it is the peers who are going through the same thing that can be just the right comfort. Dr. David Walsh likens the experience of entering puberty to being transported to a distant village in a foreign country with very different culture and customs. A young adolescent has to discover how to act and fit in. How does he or she do that? By looking to the other people in this “new territory”—his or her peers.²⁴ So this fixation on peers is understandable!

Peers as academic support

As mentioned before, positive peer relationships have positive effects on students' academics. Teachers have a role in promoting both. Recent research suggests that the more middle grades teachers structure their lessons with cooperative learning methods—rather than working competitively or individually—the more students (1) tend to achieve, and (2) have positive peer relationships. The research further demonstrated that the more positive the peer relationships are, the higher the students tend to achieve in school.²⁵ In other words, teachers can fill a young adolescent's need for socializing and at the same time, increase student achievement.

Peer pressure

Positive peer relationships appear to be good for everyone, but what about peer pressure? Dr. David Walsh believes that adolescents are often tightly controlled by the norms of their peers groups when it comes to dress, language, and customs because they place a tremendous amount of importance on fitting in. Peer pressure is inevitable, but parents do not have to go along with every whim. The author knows of one mother who said no to her daughter's request to attend a co-ed sleepover. The situation appeared to have been an easy one to say no. However, because so many other parents said yes, the mother had to be strong to keep to her decision.

Some parents see their children as victims of peer pressure, however, recent research suggests that teenagers purposely pick friends who do things they want to do—for good or for bad.²⁶ Thus, rather than being pressured by friends to do risky activities, an adolescent seeks those that like to do the same. Depending upon the situation, there are presumably situations where young adolescents are pressured to conform, and then there are others where adolescents become friends because of like interests. Either way, young adolescents can be prone to risky behavior and having caring relationships with adults can literally save young lives.

Teaching tips:

- Testosterone is geared for quick release of tension and instead of waiting for the inevitable explosion, adults could help by creating safe situations where tension could be released.
- Adolescents report that a caring teacher is honest, fair and trusting:
 - ◆ Hold students accountable for doing their homework—make them stay in at lunch or after school to finish it
 - ◆ If the students do not understand what is being taught, stick with them until they “get it” by giving extra help and materials
 - ◆ Encourage each student
 - ◆ Pay attention to each student's work
 - ◆ Give constructive feedback
 - ◆ Refuse to accept halfhearted efforts²⁷
- Give students autonomy and opportunities for decision-making:
 - ◆ Choices in assignments
 - ◆ Engaging them in developing classroom rules
 - ◆ Encouraging them to express their opinions in classroom discussions
- Promote positive relationships:
 - ◆ Listen to students' concerns
 - ◆ Respond to wrongdoings gently and with explanations rather than sharply and with punishment
 - ◆ Show positive emotion—smile, be playful
 - ◆ Compliment positive behaviors
 - ◆ Show an interest in the students' lives outside of school
- Structural changes that promote positive relationships:
 - ◆ Block scheduling with 90-minute classes gives teachers more opportunities to interact.
 - ◆ Looping develops teacher-student relationships through knowing the child over a long period of time.
 - ◆ An advisory period gives every student a close personal relationship with at least one adult.
 - ◆ Having specific times when teachers are available for one-on-one help or conversation

◆ Paying attention to students' nonacademic needs

Seven relationship-based strategies that can transform your classroom into a positive learning environment:²⁹

1. Be the CEO of your classroom.
 - Students look for reasons to respect and follow you, but do not convey an overbearing, authoritarian, inflexible approach.
2. Embrace their individuality.
 - Embracing students for who they are is likely one of the toughest challenges for educators. Young adolescents are trying to sort out who they are and how to “show up” in life. Give the gift by embracing them for their individuality and uniqueness rather than giving in to stereotyping and judging.
3. Create a community within the classroom.
 - Help students get to know each other. The sooner you are able to help students realize that there are more similarities than differences among them, the more comfortable they will be in the class.
4. Let them get to know a part of you.
 - Some educators really struggle with this concept because they fear familiarity might create a more undisciplined atmosphere in the classroom. The fact is, the more comfortable your students are with you, the more relaxed and receptive they will be.
5. Learn all students' names within 48 hours.
 - Many students feel invisible as they walk down hallways and can literally go the entire day without talking to anyone. When you address your students by name, you are showing them respect and saying they are important.
6. Examine and improve nonverbal communication.
 - Are you connecting with your students and presenting yourself and the material in a way that gives them a reason to get excited, to sit up and pay attention? Do your body language, voice inflection, volume, and facial expressions convey a sense of high energy, excitement, and relevance? Do you smile at your students?
7. Treat all students with dignity and respect at all times.
 - What if all the teachers in your school embraced the concept that their classroom would be a Yell Free Zone? As frustrated as we get at times, we should never yell at or demean a student. Maintain a personal routine of exercise and healthy nutrition to decrease stress, increase energy and help maintain a positive attitude toward every student.

Parenting tips:

Research says the following about parent-adolescent relations:³⁰

- It goes from hierarchical authority with elementary-school-aged children to a discussion-based decision-making style.
- There is increased conflict, but this makes for more adaptive outcomes.
- Despite the increased distancing and conflict, parents remain an important and significant resource for adolescents. Parents are second only to friends in closeness and support and remain the primary source for information about their child's future goals.
- Keep communication lines open with your child by listening and appreciating what he or she has to say.
- Engage your child in meaningful discussions about their interests and about current events and issues. If parents take time to strategize about future schooling, career, and life opportunities, this, too can lead to higher academic expectations.³¹
- Sit down once a day to share experiences of the day.
- Laugh together often (but not at their expense).
- Work and play with your children as much as possible. For example, when parents engage in shared activities with their children (going to a museum, church, or a sporting event), there is a positive relationship with higher grades.³²
- Maintaining family rituals and vacations is a great way to stay connected with young adolescent children.³³
- As peers and friendships become more important, help them develop high quality relationships:
 - ◆ Nurture social skills including anger management, fairness, and sensitivity
 - ◆ Allow your child to develop companionship skills through literature, sports, games, and music
 - ◆ Let your child know and practice how to express their thoughts and emotions in socially acceptable ways
 - ◆ Encourage your child to consider the perspective of others.
 - ◆ Teach your child responsive listening skills.
 - ◆ Give opportunities for him or her to develop empathy.
 - ◆ Help your child develop skills to resolve conflict and disagreements effectively.
 - ◆ Be prepared to talk to your child about his or her peers or friends whenever he or she is having trouble with them.³⁴

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Recommendation—5 Relationships Contents

Footnotes

¹Intrinsic motivation means that a person does something just because she or he likes doing it; extrinsic motivation is doing something for

treats, money, praise, or good grades.

²Stipek, Deborah. "Relationships Matter," *Educational Leadership* 64, no. 1 (2006): 46.

³Mo, Yun, and Kusum Singh. "Parents' Relationships and Involvement: Effects on Students' School Engagement and Performance," *Research in Middle Level Education Online* 31, no. 10 (2008): 9.

⁴Wentzel, Kathryn R. "Social Relationships and Motivation in Middle School: The Role of Parents, Teachers, and Peers" (Outside Source), *Journal of Educational Psychology* 90, no. 2 (1998): 207-208.

⁵Philp, Raleigh. *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. (Thousand Oaks: Corwin Press, 2007), 97.

⁶Walsh, David. *Why Do They Act That Way?* (New York: Free Press, 2004), 62.

⁷Ibid., 63.

⁸Strauch, Barbara. *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. (New York: Anchor Books, 2003) 137.

⁹Schmakel, Patricia O'Connell. "Early Adolescents' Perspectives on Motivation and Achievement in Academics," *Urban Education* 43, no. 6 (2008): 724.

¹⁰Murdock, Tamera B., and Angela Miller. "Teachers as Sources of Middle School Students' Motivational Identity: Variable-Centered and Person-Centered Analytic Approaches," *The Elementary School Journal*, 103, no. 4 (2003): 383.

¹¹Brown, Tara. "The Power of Positive Relationships," (Outside Source) *Middle Ground* 14, no.1 (2010): 10.

¹²Garza, Rubén, Gail Ryser, and Kathryn Lee. "Illuminating Adolescent Voices : Identifying High School Students' Perceptions of Teacher Caring", *Academic Leadership* 7, issue 4 (2010).

¹³Philp, Raleigh. *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. (Thousand Oaks: Corwin Press, 2007), 105.

¹⁴Stipek, Deborah. "Relationships Matter," *Educational Leadership* 64, no. 1 (2006): 47.

¹⁵Ibid., 46

¹⁶Berckemeyer, Jack C. *Managing the Madness: A Practical Guide to Middle Grades Classrooms*. (Westerville, OH: National Middle School Association, 2009) 19.

¹⁷Brown, Tara. "The Power of Positive Relationships" (Outside Source), *Middle Ground* 14, no.1 (2010): 8.

¹⁸Stipek, Deborah. "Relationships Matter," *Educational Leadership* 64, no. 1 (2006): 47.

¹⁹Balfanz, Robert. *Putting Middle Grades Students on the Graduation Path* (Outside Source). (Westerville, OH: National Middle School Association, 2009) 3.

²⁰Ibid., 13

²¹Yu, Jeong Jin, Karen Hoffman Tepper, and Stephen T. Russell. "Peer Relationships and Friendship" (Outside Source), *Building Partnerships for Youth* (Tucson, AZ: College of Agriculture and Life Sciences, University of Arizona, 2009).

²²Ibid.

²³Roseth, Cary J., David W. Johnson, and Roger T. Johnson. "Promoting Early Adolescents' Achievement and Peer Relationships: The Effects of Cooperative, Competitive, and Individualistic Goal Structures," (Outside Source) *Psychological Bulletin* 134, no. 2 (2008) 223.

²⁴Walsh, David. *Why Do They Act That Way?* (New York: Free Press, 2004), 221.

²⁵Roseth, Cary J., David W. Johnson, and Roger T. Johnson. "Promoting Early Adolescents' Achievement and Peer Relationships: The Effects of Cooperative, Competitive, and Individualistic Goal Structures" (Outside Source), *Psychological Bulletin* 134, no. 2 (2008) 238-239.

²⁶Strauch, Barbara. *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. (New York: Anchor Books, 2003) 90.

²⁷Stipek, Deborah. "Relationships Matter," *Educational Leadership* 64, no. 1 (2006): 48.

²⁸Ibid.

²⁹Brown, Tara. "The Power of Positive Relationships" (Outside Source), *Middle Ground* 14, no.1 (2010): 8-10.

³⁰Hill, Nancy E., and Ruth K. Chao, eds. *Families, Schools, and the Adolescent: Connecting Research, Policy, and Practice*. (New York: Teachers College Press, 2009) 7.

³¹Ibid., 84.

³²Ibid.

³³Walsh, David. *Why Do They Act That Way?* (New York: Free Press, 2004), 236.

³⁴Yu, Jeong Jin, Karen Hoffman Tepper, and Stephen T. Russell. "Peer Relationships and Friendship," *Building Partnerships for Youth* (Tucson, AZ: College of Agriculture and Life Sciences, University of Arizona, 2009).



Adolescent Development

Recommendation 6—Transitions

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Transitions.

Note: Following each essay, the Teaching Tips. and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

Young adolescents are making both the transition from childhood to adulthood as well as from elementary to middle grades schools. It is well known that starting in sixth grade and continuing through seventh grade, students' motivation, engagement and grades decline, sometimes substantially. There are a number of theories about this shift in student performance:

- Poor transitions from elementary to intermediate schools: studies show that there is little to no decline in motivation when students are in schools with grades kindergarten through eight.¹
- Early adolescents' dramatic developmental changes and their substantial focus on peers makes academics far less important.²
- Parental involvement declines to a greater degree in middle grades and this impacts student motivation.³

Research provides another view: the decline in student performance is due to a mismatch between young adolescents' needs and the opportunities afforded them in many middle grades school settings.⁴ Middle grades educators walk a fine line in creating a developmentally responsive classroom setting. If classes are structured too much like high school—fewer choices, less teacher support, and more competition—students will not respond well. If classes are too much like elementary grades—lower level cognitive strategies and child-oriented nurturing—students will not respond well. In one study, middle grades students reported they valued learning experiences in which teachers made the difference by being strict but nice, being willing to help, affording them respect, and explaining the information until they understood it. They preferred classroom activities involving projects and experiments, studying subjects that were fun to learn, and having opportunities to work with and learn from each other.⁵

While there is much research to be done as to what creates the best environment for young adolescents, understanding their transition from childhood to adulthood may help adults know how to better support them. Whether students are transitioning within the kindergarten through grade eight (K-8) schools, or from kindergarten through grade five (K-5) to six through grade eight (6-8) schools (or combinations thereof), students will find their bodies and minds beginning to change. For the young adolescent, these changes either come about too swiftly or too slowly, causing them to become painfully self-conscious about their appearance.

Body

Changes in the spine

One of the little-known changes in the body has to do with the spine. At the onset of puberty, the lower part of the adolescent's spine fuses together. This can make it uncomfortable for the middle grades student to sit for long periods of time. Could this be why the pencil is never sharpened quite enough?⁶

Uneven growth

Before girls reach puberty, the first apparent physical change is a growth in height. Young adolescent girls will grow an average of three to four inches per year before slowing down during puberty. The legs and feet lengthen first so the lower limbs become disproportionate compared to the rest of the body.

On average, boys are two years behind girls in development. They grow at a slower pace averaging 3½ to 5 inches per year at their peak—which occurs two years after the onset of puberty. Boys' hands and feet grow first, followed by the legs. They, too, become disproportionate compared to the rest of the body.

Awkwardness

Other growth spurts also make the body disproportionate. Young adolescents experience bone growth faster than muscle development. This uneven muscle-to-bone development results in awkwardness, a lack of coordination, and (with a lack of protective muscle coverage) a susceptibility to injury. The nose and ears grow faster than the rest of the face and the arms faster than the torso. Except for the first two years of life, the body has never grown so rapidly. Babies and toddlers are never aware of the rapid changes. However, young adolescents are very aware of their erratic growth and this causes them both social and emotional anxiety.

Gender differences

Not only are girls and boys of the same age at different points in their physical development, but there are also differences within each gender group as to the onset of puberty. For example, some girls enter puberty relatively early, and others relatively late compared with their peers. Early maturation can be advantageous for boys, particularly with respect to their abilities in sports activities. Boys who are late maturing feel frustrated because they think they cannot compete with more mature boys.

For girls, research shows that early maturation is especially problematic.⁷ They may feel different than the other girls and may experience greater depression. They also may have difficulty adjusting to school transitions, particularly the transition from elementary to middle school. In each case, and perhaps particularly for early-maturing girls, pubertal development may interfere with early adolescents' focus on school, as it can impact their social relations and overall adjustment.⁸

Body image

Normally, one's body image influences only about 25 percent of one's self-esteem. During early adolescence, however, body image can influence over 50 percent of their self-perception and self-esteem. Thus, how they look means everything to them! As they are developing disproportionately, they become painfully self-conscious about their appearance. Part of this physical transition is the adolescent's belief that "Everyone's looking at me!" All they want to do is blend in with everyone else, but that is impossible because everyone else is at different developmental stages.

Along with the atypical influence of their body image, young adolescents go through another phenomenon known as "adolescent egocentrism." This is a classic phase that young adolescents experience as they try out their new thinking skills and reflect on how others perceive them. Part of the outcome is a belief that their thoughts, feelings, and experiences are so unique and special that no one else—family, teachers, or other adults—could possibly understand them. This phase is easily misunderstood as being just selfishness; however, it is more about how the brain constructs a new awareness of the self. At first, this new awareness distorts reality and they think they are more important socially and that the future could hold unrealistic possibilities. Rest assured, as adolescents grow older, beliefs about themselves do become more realistic.

Biological clock

Along with the bodily growth changes comes a shift in the biological clock. As children enter puberty, there is a shift in the sleep-wake cycle. The hormone melatonin, which causes people to become sleepy at night, is released later in adolescents than adults. Falling asleep later also means waking up later. With a sleep requirement for early adolescents of more than nine hours, this new sleep-wake cycle makes it harder to get to school on time. (Adolescent Development Recommendation 3—Time .)

Metabolism

Another hormonal shift causes the young adolescent's basal metabolism to fluctuate. The result is that young adolescents have spurts of extreme energy and then times of extreme lethargy. This may have a substantial effect on the child's ability to pay attention in class or at home.

Brain

Dr. Jay Giedd, a neuroscientist at the National Institute of Mental Health, used magnetic resonating imaging (MRI) to scan the brains of young adolescents. His research showed an actual growth in the gray matter in the brain. This had never been observed before in humans except from zero to two years of age. The gray matter is significant because it is where learning begins. This means that middle grades is a prime time to learn new skills and knowledge. However, this spurt is part of the transition from childhood to adulthood and does not last. It tapers off and ends when the adolescent reaches 16 years of age. (Read the essay for Adolescent Development: Recommendation 1—Rigor and view Dr. Janet Zadina's video series on how the brain functions as young adolescents think and learn.)

Young adolescents are transitioning from concrete thinking to abstract thinking. They are able to think about ideas and about things they cannot see or touch. They are beginning to understand abstract concepts like democracy, sense of duty, or laws of physics. They can think about what might be instead of what is. For example, a six-year-old thinks a smiling person is happy and a crying person is sad. A fourteen-year-old may tell you that a sad person smiles to hide his true feelings. Nevertheless, there are problems associated with this transition. Moving from concrete thinking to abstract is not progressive. Young adolescents fluctuate between the two even on a daily basis. For example, in the morning, a student might be thinking abstractly, but that afternoon he or she might be back to concrete thinking. (For more information, read the essay: Adolescent Development: Recommendation 2—Instruction, Assessment, and Intervention.)

The frontal lobe of the brain itself goes through a transition. This part of the brain helps people plan, strategize, reason, make sound decisions, anticipate consequences, make acceptable social responses, pay attention, be organized, and put the brakes on impulsivity. As a child goes through puberty, the frontal lobe undergoes reconstruction. The brain is being reorganized in that area, and in the meantime, another part of the brain helps them think, the amygdala—an almond-shaped structure that influences emotion, especially aggression, fear and impulsivity. It is the “fight-or-flight” center. The result is the opposite without the frontal lobe: not motivated or engaged, impulsive, poor judgment, disorganized, irritable, and stimulus-driven.

Behavior

Parents or educators who have young adolescents may shake their heads because they cannot figure out why their child or student acted in such an unreasonable way—this illustrates the role reversal between the frontal lobe and the amygdala. It also explains why some students indulge in risky behavior. In addition, because of this role reversal in the brain, the young adolescent may misinterpret things that parents or educators say, or the way they look.

Researchers studied adolescents by showing the subjects pictures of faces with different emotional states—anger, sadness, surprise, fear, etc. They found that adolescents mistook “fear” and “surprise” as “anger.” For example, a parent might say, “Wow!” with a surprised look which may, in turn, be interpreted by the young adolescent as an angry disapproval. The adult might receive a defensive response in return: “I don’t care what you think!” followed by a bedroom door slamming. With that the parent asks, “What did I say?” A teacher’s inquisitive look might be interpreted as the teacher being angry. The student might then react by refusing to finish the lesson because “the teacher doesn’t like me.” These examples also demonstrate that the transition the child is going through can be just as taxing on the parent and teacher. The once tender and loving elementary student can become quite a different person.⁹

The misinterpretation of verbal and facial expressions results from adolescents processing emotions in a different part of the brain than adults or children.¹⁰ Adults use the rational part of the brain, called the frontal lobe. Adolescents use the part that deals with fear and anger—the amygdala. As stated above, this is generally known as the place where we experience “flight or fight.” The frontal lobe of young adolescents is being reorganized as they go through puberty; the amygdala is taking the place of the frontal lobe.¹¹

Development of the self-system (self-concept, self-esteem, and identity) takes center stage during this time.¹² Young adolescents are asking the all-important question, “Who am I?” They want to know how they fit in—from the classroom to the world. They are trying to understand what is unique about themselves while at the same time wanting to be like everyone else. They go about this by trying on different hats, looking for the perfect fit.¹³ They try out different ways to laugh, walk, and talk. They try out wearing distinctive clothing that may look odd. Sometimes they make their own bodies testing ground for controversy with hair, piercings, and tattoos.¹⁴ The process of forming an identity also takes into account how well they do in school, how well they are accepted by their peers, and the negative or positive feedback they receive from adults.

Research shows that positive relations with teachers in the middle grades counter the decline in motivation that comes with making the transition from the elementary grades. Teacher support positively affects their academic effort, behavior, and well-being.¹⁵ All school staff members can support young adolescents’ quest for identity formation through curricular experiences, organizational structures, instructional approaches, and opportunities for exploration.¹⁶ Making the school developmentally responsive for the early adolescent has larger ramifications than keeping student motivation from declining. Given that the frontal cortex, the seat of sound decision-making and planning, is “out to lunch” while it undergoes reconstruction, we know that adolescents struggle with their impulsivity in making good long-term choices. Moreover, if the academic and social environments in the typical intermediate school do not fit with the psychological needs of young adolescents, then a decline in motivation, interest, performance, and behavior would be expected as they enter and go through the middle grades years.¹⁷ The question is—how easy is it for students to make the poor choice of dropping out of school if they are in a school that is not providing appropriate educational or social environments? To keep students in school and graduate with their peers, the need for good developmentally responsive instruction and practices goes hand in hand with good transitional programs to destination high schools.

Teaching tips:

- Know that for decades, middle grades experts have cried out for special attention to be given to these unique students.
- Be aware of developmental transitions from childhood to adolescence.
- Take advantage of professional learning in the area of early adolescent development to create the best learning environment for students.
- Try to ease transitions from lesson to lesson, class to class, and system to system.
- Go to the schools where the incoming students are.
- Read Recommendation 6—Transitions for more specific ideas about how to ease transitions.

Provide student with opportunities for needed movement:

- If using individual dry erase boards, have students use both hands to hold the boards up in the air as high as they can reach. This

forces them to stretch and sit up straight as well as making them physically active.

- Having students stand up next to their desks if they support a statement or an answer gets them moving and keeps them focused on the lesson.
- Have students clap twice if the answer is A and clap three times if it is B. A simple movement can help encourage participation.
- At a specified time, have the students jump up out of their seats and move two seats to the right.
- Have students shelve their journals or help pass out books.
- Do row relays for reviewing items on the board.
- When you realize that your students have been sitting for than 20 minutes, come up with something that forces them to move. Allowing students to move keeps them engaged and alert.¹⁸

Middle grades students are more interested in the material and more focused on learning when instructional practices include:

- Mastery learning that does not focus on content, but on the process of mastering it (e.g., self-made rubrics that show progress towards multiple learning goals; the ability to transfer the subject knowledge to other subjects or transference of learning from school to life; use of a related skill, problem-solving or ability to produce a model or an artifact in that topic).
- Choice of tasks (e.g., choosing which of the assignment to start first or allowing the students to demonstrate their understanding through a variety of projects—PowerPoint presentation, 3D imagery, written report, diaries, video, board game).
- Interesting presentations by the teacher.
- Opportunities to interact with their peers.

In addition, research studies found that young adolescents' needs are better met when teachers use the following techniques:

- Nurturing decision-making skills
- Providing opportunities for peer interaction
- Using differentiated instruction
- Allowing for personal expression in assignments.¹⁹

Parenting tips:

If you were involved in the parent-teacher organization during elementary school, stay involved as your child makes the transition to the middle grades. Although your child may indicate that you are no longer welcome at school, your participation indicates your support and concern.

Stay involved

- Participate in Back-to-School, Open House, and other orientation events so you know what to expect during the middle grades.
- Share concerns about your child's adjustment to the middle grades with teachers and counselors.
- Take advantage of adolescent/parenting classes if they are available. If they are not, work with the counselor to get such classes established at the school.

Reassure and support your child; help him/her get involved

Talk to your child about what is happening physically and help him or her understand he or she is in the midst of some big changes. Also, reassure your child that the varying growth stages among his or her peers is normal.

- Do not tease about physical looks, even if your child does look "not so cute."
- Take the focus off their looks and compliment your child on something else.
- Keep your middle grades student engaged in things he or she liked as a younger child (e.g., sports, singing).
- Get your child involved as a volunteer in the community and non-profit organizations (e.g., food bank, nursing homes).

Communicate high expectations

Research studies conducted by Dr. Nancy Hill, of the Harvard Graduate School of Education, found that students do better in school when parents communicate their high expectations to their child.²⁰ Dr. Hill's research also suggests parents can better help their child at home by supporting academics in the following ways:

- Discuss learning strategies.
- Encourage career aspirations.
- Assist in planning for the future and connect what your child is learning in school, or is interested in learning, to what is going on in the family, community, California, the nation, the world . . . the real world!²¹

Help your child plan for the future and link current activities to real-world applications

Dr. Hill found that while student achievement increased somewhat when parents helped their children with homework, there were even greater gains when parents “discussed plans for the future that fostered career pathways or linked what their children were learning in school to real world activities and jobs.”²²

- Make real-world applications to whatever your child is doing.
- Explain to your child that what he or she is doing will help in future schoolwork, careers, and with other interests—be as specific as you can!
- Give your child projects that take planning and organizing.
- Discuss career interests and plan how your child will achieve his or her goals.
- Teach your child the proper use of technology.

Make sure that your child is getting the proper amount of sleep

- Melatonin is secreted when there is little or no light, so try and have the bedroom as dark as possible.
- Allow only relaxing activities before bed. TV actually hypes up children. Research studies indicate that no homework should be done in the hour prior to going to bed. This actually has to do with putting new information into long-term memory.
- Adequate sleep is vital to the memory-storage process.
- Information learned during the day is processed for long-term memory during sleep, specifically during rapid eye movement (REM). This connection between sleep and learning makes getting the right amount of sleep each night extremely important for your child’s success in school.

Help your child see the consequences of his or her actions or those of others by:

- Thinking through decisions together.
- Giving real-life examples of making the right or wrong choices.
- Being specific with directives to leave no room for misinterpretation.

Even though you may feel less important in your child’s life now, remember he or she needs your guidance more than ever!

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Recommendation 6—Transitions Contents

Footnotes

¹Jacquelynne S. Eccles, *Can Middle School Reform Increase High School Graduation Rates?* (PDF; Outside Source) (Santa Barbara, CA: California Dropout Research Project, June 2008) 2.

²Lynley Hicks Anderman and Carol Midgley, *Motivation and Middle School Students* (Outside Source) (Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education, 1997).

³Nancy E. Hill and Ruth K. Chao, *Families, Schools, and the Adolescent: Connecting Research, Policy, and Practice*. (New York: Teachers College Press, 2009) 29.

⁴Patricia O’Connell Schmakel. “Early Adolescents’ Perspectives on Motivation and Achievement in Academics.” (PDF; Outside Source) *Urban Education*, 43 (2008): 725.

⁵Ibid., 724.

⁶Jack C. Berckemeyer, *Managing the Madness: A Practical Guide to Middle Grades Classrooms*. (Westerville, OH: National Middle School Association, 2009) 4-5.

⁷Allan Wigfield, Susan L. Lutz, and A. Laurel Wagner, “Early Adolescents’ Development Across the Middle School Years: Implications for School Counselors,” (PDF; Outside Source) *Professional School Counseling*, 9 (2005): 112.

⁸Ibid.

⁹Robert Ruder, “Reaching Parents Out on a Limb,” *Middle Ground* 12 (2009): 25.

¹⁰Raleigh Philp, *Engaging Tweens and Teens: A Brain Compatible Approach to Reaching Middle and High School Students*. (New York: Corwin Press, 2007) 85.

¹¹Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. (New York: Anchor Books, 2003) 206.

¹²Allan Wigfield, Susan L. Lutz, and A. Laurel Wagner, “Early Adolescents’ Development Across the Middle School Years: Implications for School Counselors,” (PDF; Outside Source) *Professional School Counseling*, 9 (2005): 114.

¹³Sheryl Feinstein, *Parenting the Teenage Brain: Understanding a Work in Progress*. (Lanham, MD: Rowman & Littlefield Education, 2007) 10.

¹⁴David Walsh, *Why Do They Act That Way? A Survival Guide to the Adolescent Brain for You and Your Teen*. (New York: Free Press, 2004) 224.

Allan Wigfield, Susan L. Lutz, and A. Laurel Wagner, "Early Adolescents' Development Across the Middle School Years: Implications for School Counselors," (PDF; Outside Source) *Professional School Counseling*, 9 (2005): 115.

¹⁶M.M. Caskey and V.A. Anfara, Jr., *Research Summary: Young Adolescents' Development Characteristics* (PDF; Outside Source) (Westerfield, OH: National Middle School Association, 2007).

¹⁷Jacquelynne S. Eccles, *Can Middle School Reform Increase High School Graduation Rates?* (PDF; Outside Source) (Santa Barbara, CA: California Dropout Research Project, June 2008) 2.

¹⁸Jack C. Berckemeyer, *Managing the Madness: A Practical Guide to Middle Grades Classrooms*. (Westerville, OH: National Middle School Association, 2009) 4-5.

¹⁹Patricia O'Connell Schmakel. "Early Adolescents' Perspectives on Motivation and Achievement in Academics." (PDF; Outside Source) *Urban Education*, 43 (2008): 725.

²⁰Nancy E. Hill and Ruth K. Chao, *Families, Schools, and the Adolescent: Connecting Research, Policy, and Practice*. (New York: Teachers College Press, 2009) 93.

²¹*Ibid.*, 96-97.

²²*Ibid.*, 58-59.

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Adolescent Development

Recommendation 7—Access

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Access.

Note: Following each essay, the Teaching Tips and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

With students at different stages of development, the middle grades school looks more like a family reunion than a class of students of the same age group.¹ How does a school ensure that students in such varied stages of physical growth and fluctuating mental and emotional states have access to classes and support that meet individual needs? This poses a challenge to middle grades educators, especially in regard to closing the achievement gap.

Whatever the academic level, all students need solid curriculum, co-curricular activities, and staff who are sensitive to the developmental needs of young adolescents. In general, middle grades students' beliefs about their ability in different school subject areas seem to decline at least through the early adolescent years. Along with the declining belief about their ability to do well in subject matter, research has found that young adolescents are less motivated in school than are elementary or high school students. The positive side of the research is that young adolescents' beliefs about *themselves* can still be changed during middle grades.² Believing that *each* student can rise to the challenge of understanding at a higher level can counter their dismal outlook about themselves. Believing in students' abilities is powerful in motivating students to reach rigorous standards.

Students are also more likely to become motivated when school staff members are sensitive to adolescent development and develop curricular and co-curricular activities that are related to a person's needs, values, interests, and attitudes.³ Having an array of challenging courses, electives, clubs, and activities can build students' confidence and help them form positive beliefs about themselves. In the classroom, the teacher can give choices and activities that the students find exciting as they learn the subject matter.

Young adolescents are idealistic at this stage, and they are quick to point out what is fair and what is not. They believe that school rules should apply to adults as well as students. For example, if a school does not allow students to wear a certain color for gang-related security, the young adolescent believes that rule should also apply to the adult staff. Their idealism pours into asking questions about the meaning of life, questions for which there are not definitive answers. They also become inwardly reflective about who they are and the roles they play. They begin to think about their own thinking. It is a great stage of life and a great opportunity and challenge to meet the needs of these young adolescents.

Teaching tips:

- Make sure that *every* student has fair and equal access to challenging curricula and the best teachers (see the contents of the California Department of Education's Recommendation 7 — Access for more details about equal access).
- Find ways to ensure that students know they are being treated fairly and that rules are consistently applied to all students.
- If you see a totally disengaged student, find out what is going on: is it a sense that the school is unfair and no one cares about him or her?
- Provide tasks that challenge and trigger curiosity for EVERY student. For example:
 - ◆ Make it clear what the student should be able to do when the lesson is finished
 - ◆ Connect the lesson to what has already been learned.
 - ◆ Include provocative ideas and challenging activities.
 - ◆

Involve students in developing the criteria that will be used to assess their competency.

- ◆ Demonstrate how closely the content is connected to the real world.
- ◆ Give choices in selecting activities and questions to pursue.⁴

Parenting tips:

- Know your child well and advocate for teachers who can best attend to their strengths and needs.

Study the Williams Settlement and make sure your child is using instructional materials that have been adopted by the State Board of Education.

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Recommendation 7—Access Contents

Footnotes

¹At the Turning Point (Outside Source): The Young Adolescent Learner.

²Allan Wigfield, Susan L. Lutz, and A. Laurel Wagner, "Early Adolescents' Development across the Middle School Years: Implications for School Counselors," *Professional School Counseling*, Vol. 9 (December 2005), 114.

³David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, p. 65.

⁴*Ibid.*, p. 66.

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Adolescent Development

Recommendation 8—Safety, Resilience, and Health

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Safety, Resilience, and Health.

Note: Following each essay, the Teaching Tips and Parenting Tips demonstrate how to put the developmental-based strategies into action in the classroom and at home.

Middle grades school becomes a crossroad for young adolescents. They are faced with decisions to do or not to do things that put them at risk. Even the most diligent, obedient student in elementary school can do an about-face and leave teachers and parents shaking their heads with, “What was he or she thinking?” Parents say, “He has never done that before,” or, “She was taught over and over not to do that.” Why is there now an impulse for risk taking? A look inside the young adolescent’s brain may help adults understand.

Two things are happening in the brain as a child enters puberty. First, hormones help trigger impulsive behavior; second, the impulsive behavior control center is under construction. The part of the brain that is responsible for controlling impulsive behavior (the prefrontal cortex) undergoes reorganization as puberty begins. This part of the brain also helps people to think before they do something they will later regret. At the same time, the part of the brain that is responsible for impulsive, emotional activity (the amygdala) is being overly activated by hormones.¹ In essence, there is a role reversal so the amygdala becomes dominant and the prefrontal cortex takes a back seat.²

With hormones surging through the brain and activating the amygdala and with the prefrontal cortex too immature to put on the brakes, young adolescents are at the mercy of extreme impulses that they are not always capable of controlling.

For boys this impulsive behavior can be aggressive and angry. For girls it can show up as amplification of a wide range of emotions. For many boys and girls, the intensity of their feelings—of the impulses firing in their brains, whether angry, sad, sexual, or territorial—is often surprising. Many of them have not felt such strong impulses during childhood.³

Body and brain are years apart

Until recently, the brain was thought to be fully mature by the time a child starts puberty. It is now known that the prefrontal cortex does not mature until the early twenties. Ironically, the bodies of adolescents are maturing five years faster than they did a century ago—from 17 to 12 years of age.⁴ That means that there is a bigger discrepancy between the maturing brain and the maturing body. Therefore, at a younger age, adolescents are facing responsibility for sexual behavior before they are emotionally and socially mature.⁵ In addition, there is a drug culture that young adolescents may encounter that did not exist 40 years ago. Gangs may force young adolescents to make decisions about joining. There are many adult decisions that young adolescents need to make with their immature brain, and this may put them under a lot of stress.

Stress as a risk factor

Prolonged stress interferes with memory and with planning and judgment.⁶ The response to stress because of danger at school or home sends chemicals throughout the body and brain. This response can also happen when a person anticipates danger, such as threats from a bully.⁷ Constant release of stress chemicals over a long period of time will become toxic to the body. Students may find it difficult to concentrate or recall information in class. Schools can be a safe haven for students whose homes are in chaos. When schools are perceived to be dangerous by students, student success is compromised.

Resilience, nutrition, and other health issues

The California Department of Education's Recommendation on Safety, Resilience, and Health includes sections on how to help build the strengths or assets of young adolescents, as well as sections that cover other critical health issues such as fitness and nutrition. Link to the following sections to see how to build the strengths of young adolescents so they are ready for a productive life:

- Resilience—strengthening protective factors and developmental assets
- Sexuality and family-life education
- Alcohol, tobacco, and other drug-use awareness and prevention
- Character education
- Health supports
- Nutrition and fitness
- Family services and community health connections

Teaching tips:

- Making middle grades schools a safe place where there are fewer chances that students have to make adult decisions is as important as the curriculum being taught.
- Classrooms also need to be safe havens. When students have any doubt that they can be successful doing an assignment or task, the stress response goes into motion.⁸
- Students need to know that the teacher is on their side and will give them many opportunities to learn.

Parenting tips:

- Encourage your child to learn respectful behavior by thinking before he or she speaks to.
- Encourage your child to participate in exercise and physical activities. Join in to model fitness.
- Help your child to learn about healthful eating. Make it a family goal: do research, shopping, and cooking in new ways.
- Study the 40 developmental assets (Outside Source) that contribute to student resilience in the face of difficulty. Determine areas that your family needs to work on to help your child develop the 40 building blocks that help young people grow into healthy, caring, and responsible people.

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Recommendation 8—Safety, Resilience, and Health Contents

Footnotes

¹Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 65.

²Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. New York: Anchor Books, 2003, p. 28.

³David Walsh, *Why Do They Act That Way?* New York: Free Press, 2004, p. 65.

⁴*Ibid.*, 15.

⁵*Caught in the Middle: Educational Reform for Young Adolescents in California Public Schools*. Sacramento: California Dept. of Education, 1987, p. 145.

⁶Robert M. Sapolsky, *Why Zebras Don't Get Ulcers (Third edition)*. New York: Henry Holt and Company, 2004, p. 213-215.

⁷*Ibid.*, 7.

⁸Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 113.

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Adolescent Development

Recommendation 9—Leadership

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Leadership.

With a better understanding of young adolescents, school leaders are better able to develop a school climate suitable for positive development. In this type of climate, students can succeed academically as well as socially, emotionally, and physically. Schools are about learning, and the whole child needs to be considered as part of that learning process.

Rigor: Because adolescence is a time of brain growth, leaders need to monitor the curriculum to know that students are challenged and given as many opportunities as possible to be exposed to new experiences. Even though middle grades students appear to be preoccupied with their social life, this period is an important time to be using higher-order thinking skills.

Instruction, Assessment, and Intervention: The place where most learning takes place is in the classroom. Young adolescents are making major growth steps in cognitive development. They are going from a child's concrete way of thinking to abstract thinking as an adult. The brain growth is opening up areas for development, such as problem solving, reasoning, and organization. It is a time in which young adolescents can easily learn from experience new ideas, knowledge, and skills. School leaders need to enrich the classroom environment with teaching aids that will spark the young adolescent's curiosity and interest. Leaders also need to know that the teachers are aware of how the brain learns and to use techniques that will keep a young adolescent interested in the subject matter.

Time: Leaders need to be aware that as young adolescents get further and further into puberty, their biological clock will shift. Some middle grades student will not be tired until late and then want to sleep in longer in the morning. As this practice conflicts with school hours, those students will suffer from lack of sleep. Sleep deprivation has become a topic of concern for psychologists. Leaders also need to be aware how much time it takes the brain to learn something. Even though there appears not to be enough time to cover the curriculum, young adolescents must have time for repetition so that the information goes into long-term memory.

Relevance: As young adolescents come out of the fog of childhood, they realize that there is a big world out there and they are curious about it. They want to know how they are going to fit into this adult world. School leaders need to know that by making the lessons being taught relevant to the real world, students are more likely to be motivated to learn. They are also more likely to be motivated to learn if the subject matter is relevant, which is to say, has meaning. Leaders need to challenge teachers to present the material so that it connects to past experiences for the school's diverse population. Leaders need to be aware of how vast those differences are in the school population and to promote multicultural awareness among staff members so that they can make the school experiences more relevant to students' interest.

Relationship: Young adolescents are not just big elementary students. They are unique because of the rapid changes taking place throughout their minds and bodies. However, nurturing and caring for middle grades students is still very important. Leaders need to create a caring culture in the school; without it the student will be less motivated to do well academically. Even though young adolescents appear to be very attached to their peers, they do want to be accepted by adults. They need guidance, limits, and role models, especially at this age. Because of the brain development taking place, young adolescents tend to think emotionally and less with reason. They tend to be impulsive and less rational. Leaders need to ensure that students have at least one adult with whom they have a positive relationship.

Transition: For many young adolescents, they are making the transition from a feeder school to a middle grades school. Whether they stay at the same school or move to a middle school, they are all making the transition from childhood to adulthood. The challenge for adults is that the students are all making that transition at different times. Some are maturing early, and some mature late. This maturation process has a profound effect on young adolescents. They can become self-conscious because as they are trying to blend in, they may be standing out as being "too mature" or very immature. Leaders need to be aware that each young adolescent is waging his or her own battle as their bodies mature by fits and starts. Leaders who provide support programs for this fragile group make this transition period a much smoother one. Additionally, leaders can provide health and sciences classes to explain the physical changes that are happening.

Access: School leaders need to realize that the students at a middle grades school are not a collective group as in elementary or high school. Here, one size does not fit all. Leaders need to ensure that each student, no matter what stage of development he or she is in, has access to challenging curriculum in exciting classes. The leader needs to offer as many interesting core classes, electives, clubs, and sports activities as possible because this is the window of opportunity to give students a chance of fulfilling potential skills and abilities. Leaders

need to provide young adolescents with experiences that give them an independent voice to build confidence and motivation.

This is also an important time for leaders to guide staff members in developing cultural and socioeconomic sensitivity to student and family issues that might interfere with—or enhance—learning. For example, by building multicultural awareness into the school climate and classroom lessons, middle grades leaders can help to ensure that students feel valued and connected to the school community.

Safety, Resilience, and Health: School leaders need to be aware that young adolescents are at risk and vulnerable to negative influences more than at any other age. The part of the brain that is least developed is the part that enables the person to plan, reason, anticipate consequences, make sound decisions, and put the brakes on impulsive behavior. The part that is most developed is the body. Young adolescents are going through puberty five years earlier than they did in the last century. Unique to this age is a more fully developed body with the least mature brain. Leaders can create a school climate so that the school is a safe haven and not a place that creates stress and anxiety.

Similarly, leaders can guide staff members in learning about and developing the positive assets that help students succeed in school and in life. By focusing on youth development during staff meetings, members of the school’s professional learning communities can help students develop the assets that lead to healthy, caring, and responsible behaviors.

Building resiliency for those students who are at risk can be accomplished by building relationships of acceptance. Young adolescents are surprised, frightened, or confused about the transition to adulthood. Leaders can ensure that all staff members of a school accept responsibility for having a stabilizing effect as hormones surge through their students’ brains. Caring, supportive programs that provide boundaries and activities to tap into their energy are needed.

Leadership: School leaders can build trust, promote intellectual safety, and help students deal with anger fear, hurt, and tension.¹ Leaders are great role models for young adolescents. Interacting with students on a daily basis and personally rewarding them for good deeds is part of creating a positive climate.

In addition, leaders can guide teaching teams in designing and implementing a wide variety of programs that will help students develop their own leadership potential. See Recommendation 9 section Student leadership for more detail.

Professional Learning: The greatest gift a school leader can give to educators is a set of tools to perfect the art and science of teaching. Educators need to know how the brain learns so that teaching can be effective. To be successful at teaching, middle grades educators need to know how young adolescents learn. Teachers need to know how students think and feel, and why they act the way they do. Young adolescents are a unique group of children. It is very difficult to walk into a middle grades classroom without knowing how to reach and teach young adolescents. Leaders need to equip teachers with the understanding needed for this age group so that teachers can be successful. Yes, young adolescent can be “squirrely,” but they are a fun group. Being able to make a difference by setting them on the right path to success in high school and beyond is very rewarding.

Accountability: For teachers to be accountable for results, they must hold their students accountable to certain norms and rules that are consistent across the school. Leaders help to ensure that the structure, routine, and consistently applied rules bring order to the school climate and help young adolescents feel secure. Leaders hold all staff members are accountable for the success of each student.

Partnerships: Middle grades leaders often play the lead role in providing real-world experiences through partnerships with the community. Then partnerships can engage students who would not otherwise be motivated and help young adolescents feel that they are part of the adult world. Students are seeking to identify with adults, and partners can be role models for them. Giving students responsibilities beyond classroom academics can build self-esteem, confidence, and competency.

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Recommendation 9—Leadership Contents

Footnote

¹Raleigh Philp, *Engaging ‘Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 99.

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Adolescent Development

Recommendation 10—Professional Learning

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Professional Learning.

It is critical that middle grades educators be provided with their own education on adolescent development as outlined in each of the previous sections. Young adolescents are going through a very peculiar time because of the rapid growth in the brain and body. These growth changes affect their moral, social, psychological, intellectual, and physical development. In terms of closing the achievement gap, these developmental changes impact the way middle grades educators must teach to engage the adolescent learner. In an era where test scores are extremely important, educators should be more intent on understanding *who* they are teaching and how their brains learn. Dr. David Sousa states:

The human brain is an amazing structure—a universe of infinite possibilities and mystery. It constantly shapes and reshapes itself as a result of experience, yet it can take off on its own without input from the outside world. How does it form a human mind, capture experience, or stop time in memory? Although it does not generate enough energy to light a simple bulb, its capabilities make it the most powerful force on Earth.¹

The most dramatic discovery about young adolescent brains is that part of the brain is under reconstruction and does not become fully mature until the early twenties. This discovery has answered a lot of questions as to why adolescents act the way they do. The area under reconstruction is called the prefrontal cortex. It is responsible for making sound decisions, putting the brakes on impulses, giving appropriate attention, organizing, and thinking ahead and planning.² When adults look at a middle grades student's backpack, it could be like looking inside the prefrontal cortex. Why is this child looking more like an adult and yet seemingly more disorganized and confused than before? Thanks to brain research, the answer becomes clear. This does not mean that adults should ignore the backpack and hope for the day when the light turns on and the child is magically organized and controlled. Rather, it gives the middle grades educator a better understanding of what his or her role must be to help young adolescents succeed.

In teams—often known as “professional learning communities”—teachers can develop a collective mindset in learning about and nurturing positive adolescent development. For example, teams can set aside the first ten minutes of each meeting to discuss students who appear to be emotionally or academically at risk and brainstorm positive solutions. They can also mentor new teachers in understanding how to apply adolescent development research to the design and delivery of lessons.

There must be a concern for subject matter in addition to an emphasis on helping the student perform in the areas that are challenging for them: how to organize, plan, strategize, and sustain attention. Getting young adolescents to think about how their choices lead to certain consequences is another challenging area for him. Supporting brain growth is a support to learning the curriculum. Middle grades educators need to understand the development of young adolescents in every area of growth. Without this knowledge, teachers will be less effective and the achievement gap will widen. Young adolescents can be a very difficult group to work with, but with the knowledge of who they are and what makes them tick, adults can see them to be a delight. Teaching young adolescents has the potential of being rewarding with the right understanding.

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Recommendation 10—Professional Learning Contents

Footnotes

¹David A. Sousa, *How the Brain Learns (Third edition)*. Thousand Oaks: Corwin Press, 2006, p. 1.

²David Walsh, *Why Do They Act That Way?* New York: Free Press, 2004, p. 44.

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Adolescent Development

Recommendation 11—Accountability

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Accountability.

Although young adolescents bring to school varied backgrounds that impede or promote academic learning, educators are accountable for every student succeeding. Supporting the students in every aspect of their development helps every student and more so for the students who are at risk. At-risk students may have experienced or are experiencing, for example, death, divorce, parent incarceration, high mobility, and mental, physical, or drug abuse. Those who are socially dysfunctional need confidence building from adults.¹ Recognizing and responding to the developmental needs of individual middle grades students helps educators to be accountable for creating lessons and programs that help each of these young adolescents to succeed **and to be accountable for their own success**.

Teacher accountability includes:

- Teaching organizational and study skills
- Creating challenges that capitalize on the brain's growth spurt
- Being sensitive to the transition between concrete and abstract thinking
- Using emotional "hooks" to make learning interesting
- Creating time to learn, rehearse, and relearn if necessary
- Creating schedules that address adolescent sleep cycles
- Building on textbook lessons to add real-world experiences
- Making sure that students can connect new information with previously learned knowledge
- Creating a caring culture where all students are accepted and have at least one positive relationship with an adult
- Understanding that young adolescents think more through their emotions than they are with good reasoning
- Being aware that young adolescents are more vulnerable to negative influences than at any other age and properly guiding them to take healthy paths
- Being sensitive to young adolescents as they are going through drastic physical changes
- Being aware of and sensitive to students who are going through puberty early and those who are late
- Developing challenging courses for all students
- Providing many varied electives, clubs, and activities to all students so that all students can be exposed to experiences that build knowledge and skills
- Creating a safe culture at the school
- Knowing that young adolescents are at risk and being proactive so that they make healthy choices
- Being a role model for leadership
- Making sure no student falls into the achievement gap
- Including families and communities as partners in helping students succeed in their academic and personal lives

Student accountability includes:

- Maintaining portfolios and presenting them during student-led parent conferences
- Making goals related to improvement on progress reports

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Footnote

¹Raleigh Philp, *Engaging 'Tweens and Teens: A Brain-Compatible Approach to Reaching Middle and High School Students*. Thousand Oaks: Corwin Press, 2007, p. 85.

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Adolescent Development

Recommendation 12—Partnerships

A summary of young adolescent development, including brain research, as it pertains to the California Department of Education's Recommendation on Partnerships.

As young adolescents come out of the cloud of childhood, a whole new world comes into view that is new and exciting for them. They are curious about what is going on outside their childhood sphere, and they want to know how they can survive and fit into it. Middle grades educators have a great opportunity to fill their students' curiosity with deeper knowledge in all subjects. And because of new brain growth, there is a window of opportunity for young adolescents to easily learn from experience new ideas, knowledge, and skills (see Recommendation 1, Rigor and Recommendation 4, Relevance.¹ However, the key to teaching the young adolescent is making knowledge relevant so they know how to survive and fit into this world.

Providing real-world experiences through partnerships can engage students who would not otherwise be motivated. It also helps young adolescents feel that they are part of the adult world. Students are seeking to identify with adults, and partners can be role models for students. Giving them responsibilities beyond the classroom academics can build self-esteem, confidence, and competency. Students may be meaningfully engaged through the following means:

- Business partners come to classes and address students about their work.
- Students take field trips to businesses.
- Nonprofit organizations provide avenues for students to help people in their community and the world.
- Nonprofit organizations provide avenues for students to study and learn about their environment and how to manage ecosystems.
- Recycling programs give students the opportunity to take part in helping the environment.
- Local agencies that deal with animals can provide avenues for students who are motivated by working with animals.
- Projects with nonprofit organizations can be turned into a class assignment—service-learning.

Young adolescents are going through the turmoil of wanting to be loyal to their peers as well as with their families. But in their quest to be independent, some children challenge authority figures and try to push away from adults in general. However, they need adult role models for guidance and setting limits. Bringing in families as part of the educational process helps students to stay connected with them and lessens their chances to engage in risky behavior.² Research consistently shows that the most protective factor for adolescents is parental connection and involvement.³

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Footnotes

¹Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. New York: Anchor Books, 2003, p. 17.

²Barbara Strauch, *The Primal Teen: What the New Discoveries About the Teenage Brain Tell Us About Our Kids*. New York: Anchor Books, 2003, p. 142.

³David Walsh, *Why Do They Act That Way?* New York: Free Press, 2004, p. 236.

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