Adolescence is a period of rapid change. Physical change is the most obvious, but adolescents are also changing cognitively, emotionally and socially. They also deal with shifts in their identity as they move into new roles and responsibilities in their social groups, interests, and communities. It is also a developmental period marked by a number of important transitions and milestones (e.g., related to school, work, cultural or religious significance).

At the same time, students are living with a number of technological innovations previous generations never experienced. Adolescents may:

- be accustomed to receiving information quickly
- prefer multi-tasking
- prefer non-linear access to information
- engage in games, simulations, and role-playing
- engage in social interactions through a variety of technologies (Tapscott, 2008).

For adolescents, it is a time that may seem all at once exhilarating and stressful, while simultaneously for the adults in their lives, a puzzling and hopeful time. However, when learning is responsive to the developmental needs of students, and takes their lives into account, adolescent learners are more likely to experience success. As with any stage of development, educators play a key role in providing learning experiences with the learners’ development in mind.

Physical Development

The physical changes of puberty affect every aspect of the lives of adolescents. Changing bodies may lead to changes in circles of friends, participation in activities such as sports, adults’ view of adolescents, and adolescents’ views of themselves.

During adolescence, students are experiencing:

- rapid growth resulting in relatively significant increases in both weight and height
- development of primary and secondary sex characteristics
- changes in body composition, notably the quantity and distribution of muscle and body fat
- changes in cardiovascular and muscular endurance, strength and flexibility (Steinberg, 2008).

Physical development may lead students to...

- be engaged in less physical activity
- experience an increase in strength, energy levels, stamina and sexual maturation at different times and rates
- feel fatigued at various times during the day
- have increased appetite and shift in their eating habits
- a change in their sense of body image

Teachers tap into developmental needs by...

- providing opportunities for physical activity and social interaction
- creating a safe and positive social and emotional climate for learning
- creating a learning environment that allows students to move (e.g., four corners, value line), and be kinesthetic
- connecting body representations to ideas (e.g., tableau)

Critical Literacy: prompt students to question, challenge and analyze media images of youth

Metacognition: have students reflect on their learning in a variety of learning settings

Voice and Identity: invite student input on the set-up of their learning environment

Recent research suggests that the cerebellum (which is largely responsible for physical movement and coordination) also coordinates cognitive thought processes and that the more physical exercise adolescents get, the better their brains will process information... Academic classrooms should also include movement to activate learning.

Sprenger, 2005

“Remember that teens are not adults. Having scientific evidence to support the view that teens are not adults can be helpful to educators working with families, adolescents and other professionals who may have unrealistic expectations for adolescents.”

Price, 2005

What teachers need to know about literacy and teens is “that we are a generation of low patience and we need to like something to put effort into it.”

Elaine S., Grade 12
Adolescents are experiencing a brain growth spurt. This in part, explains a number of changes in learners cognitively. Adolescents develop intellectually so that they can think in ways that are more advanced and more efficient than when they were children (Steinberg, 2008). Adolescents’ intellectual and cognitive abilities are developed through practice, so instruction targeting these skills is critical during this period of brain growth.

During adolescence, students are developing:

- the ability to think more about a variety of possibilities
- improved abstract thinking compared to their thinking as children
- the skills to think more about thinking (metacognition), and think more purposefully to advance their learning
- the capacities to engage in thinking that is more multidimensional, rather than limited to a single issue or perspective
- the ability to see issues and situations as relative, rather than absolute, and the realization that individuals can draw different conclusions from the same facts (Steinberg, 2008).

Development may lead students to...

<table>
<thead>
<tr>
<th>Teachers tap into developmental needs by...</th>
</tr>
</thead>
<tbody>
<tr>
<td>- providing opportunities to generate alternative solutions and explanations</td>
</tr>
<tr>
<td>- providing opportunities for students to organize abstract ideas</td>
</tr>
<tr>
<td>- modeling and guiding transferable strategies and skills</td>
</tr>
<tr>
<td>- guiding students to draw reasoned conclusions based on criteria</td>
</tr>
<tr>
<td>- providing opportunities for students to analyze issues related to equity, power and social justice and invite them to take a critical stance</td>
</tr>
<tr>
<td>- Metacognition: develop opportunities for reflection, and to act on their metacognitive thinking</td>
</tr>
<tr>
<td>- Questioning: provide opportunities for students to develop and pose their own questions</td>
</tr>
<tr>
<td>- Strategy: guide students to develop their own strategy as they engage in appropriate complex tasks</td>
</tr>
</tbody>
</table>

**Literacy Links**

- co-creating learning goals and success criteria and inviting student input into decisions related to their learning environment
- using inquiry or project-based processes that integrate, synthesize and apply content knowledge
- allowing students to generate alternative solutions and explanations
- providing opportunities for students to organize abstract ideas
- Critical Literacy: invite students to analyze issues related to equity, power and social justice and invite them to take a critical stance
- Metacognition: develop opportunities for reflection, and to act on their metacognitive thinking
- Questioning: provide opportunities for students to develop and pose their own questions
- Strategy: guide students to develop their own strategy as they engage in appropriate complex tasks

Adolescents are able to reflect on their own thinking, and they are able to observe how they learn and develop strategies to improve their learning.

Stepping Stones, 2012

Controlling impulses, planning, and making decisions are crucial components of our everyday behaviour. They provide the skills that we need to function in a complex world... the neurological structures that underlie these higher-level abilities are still maturing during adolescence.

Ellevag, Gledt & Wenberger, 2005

**EMOTIONAL DEVELOPMENT**

Adolescent emotional development is closely connected to their social development and is also tied to their sense of identity. Adolescents often feel emotions more intensely. Recent brain research indicates that the limbic system, the emotional centre of the brain, matures earlier than the frontal lobes, the part responsible for emotion control. So, adolescents are more likely to have strong emotional responses to situations and issues, and may respond in ways which are considered outside the norm (e.g., being overly dramatic). They may also focus on personal aspects of the emotion (e.g., my teacher hates me). “While adolescents have become more capable of experiencing emotions, their capacity for self-regulation and for decision making lags behind. Learning to regulate their emotions is, therefore, initially quite difficult for adolescents” (Stepping Stones, 2012).

During adolescence, students are developing:

- abilities to accurately read facial cues and body language of others, and interpret these for information about others’ emotional state;
- emotional self control;
- empathy for others;

Development may lead students to...

<table>
<thead>
<tr>
<th>Teachers tap into developmental needs by...</th>
</tr>
</thead>
<tbody>
<tr>
<td>- experience new, intense and long lasting emotions</td>
</tr>
<tr>
<td>- need independence and to exercise self-assertion</td>
</tr>
<tr>
<td>- fear rejection, and experience feelings of uncertainty and inadequacy</td>
</tr>
<tr>
<td>- become more intrinsically motivated and increasingly want to pursue opportunities and goals for the own purposes and on their own terms</td>
</tr>
<tr>
<td>- teaching students how to work effectively and respectfully in diverse teams</td>
</tr>
<tr>
<td>- modeling and teaching positive communication strategies, conflict-resolution, decision-making, problem-solving, leadership</td>
</tr>
<tr>
<td>- co-creating norms of collaboration and classroom conduct</td>
</tr>
<tr>
<td>- establishing and maintaining clear classroom routines and structures</td>
</tr>
<tr>
<td>- providing learning experiences which involve students’ social network</td>
</tr>
<tr>
<td>- guiding students as they deal with stress</td>
</tr>
<tr>
<td>- providing opportunities for students to analyze a variety of perspectives</td>
</tr>
<tr>
<td>- Critical Literacy: provide opportunities for students to analyze issues related to equity, power and social justice and invite them to take a critical stance</td>
</tr>
<tr>
<td>- Metacognition: develop opportunities for reflection, and to act on their metacognitive thinking</td>
</tr>
<tr>
<td>- Questioning: provide opportunities for students to develop and pose their own questions</td>
</tr>
<tr>
<td>- Strategy: guide students to develop their own strategy as they engage in appropriate complex tasks</td>
</tr>
</tbody>
</table>

“Empathy during adolescence involves a largely emotional response, while mature empathy that emerges in early adulthood involves a more cognitive evaluation of other person’s emotional response.”

Stepping Stones, 2012.

“The brain is biologically programmed to attend to information that has a strong emotional content. It is also programmed to remember this information longer.”

Wolfe, 2005

**LITERACY LINKS**

- Wolfe, 2005
- Ellevag, Gledt & Wenberger, 2005
- Stepping Stones, 2012
- Yurgelun-Todd, 2004
- Steiner-Steinberg, 2008
During adolescence, students are developing: 

- a personal identity and sense of self
- a social identity
- a sense of independence and autonomy
- moral reasoning based on both personal and external factors
- strong relationships which are independent of family relationships (Armstrong, 2006).

As it turns out, graduating from high school is not one of the central developmental tasks of young adulthood... the key issue of young adulthood is the quest for intimacy (falling which the individual feels isolated).”

Armstrong, 2006

“Teachers help their students to develop a sense of competence and self-worth when they are able to convince their students that they care about them as individuals and want them to learn.”

Dillon cited in Think Literacy Success, 2003

Educators are key to providing the environment and learning experiences which help adolescents in (or with) their development. Adolescents have a number of needs that support their development. These include:

- **Affirmation**
  When learners feel a sense of affirmation, they feel listened to, they feel safe, accepted, and acknowledged.

- **Challenge**
  When learners feel an appropriate sense of challenge they are engaged in learning that complements who they are. They are stretching their abilities, they are accountable, and they know they are accomplishing goals that are different than what they have achieved in the past.

- **Contribution**
  When students feel they are making a contribution, they feel like they make a difference, they bring perspective, they are connected, and they help others succeed.

- **Power and Autonomy**
  When learners have a sense of power and autonomy, they feel they can make choices, and they know what quality and success looks like and they know how to get there.

- **Purpose**
  When students feel a sense of purpose they understand what they need to do, they know they make a difference, they see significance in what they are doing, and they are absorbed in a process leading to a desired goal.

Educators support student literacy learning by:

- establishing a classroom environment of trust, respect and cooperation where students feel safe and empowered to take risks, pose questions and seek answers of relevance and interest
- using assessment to gauge students’ needs, and determine next steps for learning and instruction
- using the gradual release model to scaffold instruction
- providing responsive instruction to students when needed
- creating spaces and opportunities for collaboration, and tapping into learning through social interactions in the classroom.