



# COGNITIVE DEVELOPMENT

## Brain Development and Processing

What's happening?	How can I tell?	How can I help?
<b>Their brain is experiencing a “burst” of development and is sensitive to experiences.</b>	<ul style="list-style-type: none"><li>• Children are affected by experiences and their ability to develop and process information depends on having positive interactions and having their basic needs met.</li><li>• They have a strong ability to adapt and change.</li></ul>	<ul style="list-style-type: none"><li>• Ensure they have a healthy diet, aligned with Canada's Food Guide or Canada's Food <i>Guide for First Nations, Inuit and Métis</i>.</li><li>• Emphasize sleep — middle years children function best with nine to 11 hours of uninterrupted sleep per night.</li><li>• Ensure they feel safe and are not subject to undue stress. If they have experienced high levels of stress, help them talk about it and develop coping strategies. Access additional supports if needed.</li></ul>
<b>Their brain functions with greater efficiency and speed.</b>	<ul style="list-style-type: none"><li>• Children are learning new information and skills more quickly than they did before.</li><li>• They are better able to understand new concepts, and they are able to solve more complex problems.</li><li>• The more experiences they have, the better their brains will develop.</li></ul>	<ul style="list-style-type: none"><li>• Arrange for regular participation in a range of activities, such as arts, music, sports, spending time in nature and learning a second language.</li></ul>
<b>Their sensory and visual-spatial skills are improving.</b>	<ul style="list-style-type: none"><li>• Children have completed development of basic vision, hearing and touch.</li><li>• They are better able to understand, organize and use complex visual information and tools.</li><li>• Their ability to judge spatial relationships and depth perception is improving.</li></ul>	<ul style="list-style-type: none"><li>• Use visuals when teaching them.</li><li>• Encourage middle years children to build things, such as playing with blocks.</li><li>• Provide them with an organized workspace for school work.</li><li>• Visit an optometrist if you have concerns about their vision.</li></ul>

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<b>Their memory is improving.</b>	<ul style="list-style-type: none"> <li>• Children are better able to remember past events and experiences.</li> <li>• They can pay attention for longer.</li> <li>• They can be mindful of multiple thoughts and ideas at the same time.</li> <li>• They can better reflect on what they are doing and what they want to accomplish.</li> </ul>	<ul style="list-style-type: none"> <li>• Keep instructions short and repeat them as needed.</li> <li>• Help boost children's memory by using rhymes and acronyms, encouraging them to paraphrase events and stories, and making lists and notes.</li> </ul>
<b>Their ability to reason and think abstractly is gradually improving.</b>	<ul style="list-style-type: none"> <li>• In the early middle years, children can better understand logic, cause and effect and identify patterns.</li> <li>• During this time, reasoning skills and abstract thinking skills are still developing.</li> <li>• Later in the middle years, they are better able to process information, reason, think abstractly, make decisions and consider complex and hypothetical problems.</li> <li>• They are developing "metacognition" — the ability to reflect on their own thinking.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't be afraid to challenge your children — give them chances to talk and think about complicated issues.</li> <li>• Ask children why they think and do things — listen and validate their reasoning.</li> <li>• Point out where you see they are using good logic and reasoning to work through problems — boost their confidence in their own intelligence.</li> </ul>

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### Learning and Reasoning Skills

What's happening?	How can I tell?	How can I help?
<b>They are developing their learning skills and strategies.</b>	<ul style="list-style-type: none"> <li>• They are generally motivated and excited about learning, and are “learning how to learn” by studying, practising and learning from mistakes.</li> <li>• They are becoming aware of their own strengths and challenges as learners.</li> <li>• They are developing creative, imaginative and practical solutions to problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Take an interest in what children are learning at school.</li> <li>• Create different opportunities for them to learn together with you and also by spending time on their own.</li> <li>• They want to be like you. Demonstrate that you like to learn new things.</li> <li>• Encourage children to join a homework club/group.</li> </ul>
<b>Their ability to concentrate is still weak, but is improving.</b>	<ul style="list-style-type: none"> <li>• Children are better able to pay attention and stay on task, but they can still be easily distracted — multi-tasking may be challenging.</li> <li>• They can complete tasks faster and more consistently.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage children to do one thing at a time, and keep distractions to a minimum.</li> <li>• Be cautious about overstimulation from media or other activities that require high levels of prolonged concentration as they can be overwhelming.</li> <li>• Encourage and provide opportunities for practice and repetition.</li> </ul>
<b>Their numeracy and literacy skills continue to develop.</b>	<ul style="list-style-type: none"> <li>• Throughout the middle years, children are getting better at reading and by the end of middle childhood, most should have strong reading skills.</li> <li>• Similarly, during this period their basic math skills — adding, subtracting, multiplying and dividing — are improving.</li> <li>• They are comfortable making, describing and comparing measurements of length, area, volume, mass and time.</li> <li>• They are getting better at using computers.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage reading whenever you can.</li> <li>• Find engaging ways for them to practice and improve their math skills.</li> <li>• Support healthy and appropriate use of computers and technology. (See page 17 for more information.)</li> </ul>
<b>Their critical thinking skills are forming.</b>	<ul style="list-style-type: none"> <li>• Children can develop plans, collect information, and use it to draw conclusions and plan next steps.</li> <li>• They can understand more complex instructions and strategies.</li> <li>• They learn from mistakes and reflect on what could have been done differently.</li> <li>• They can come up with ideas, experiment and think critically to investigate and solve problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Devise short-term projects and tasks that children can plan and complete.</li> <li>• Challenge them with puzzles and games that require thinking and logic.</li> <li>• Ask, “What do you think?” in the face of a problem, and encourage them to identify more than one possible solution.</li> <li>• Engage middle years children around planning and priority setting.</li> </ul>

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### Behavioural Learning

What's happening?	How can I tell?	How can I help?
<b>Their ability to be aware of and regulate their behaviour is limited, but developing.</b>	<ul style="list-style-type: none"> <li>• Children are able to anticipate the consequences of expressing their emotions.</li> <li>• They are better able to understand that they are doing something wrong, and better able to stop.</li> <li>• Though they still desire immediate gratification and rewards, they are better able to regulate, moderate and inhibit impulses.</li> </ul>	<ul style="list-style-type: none"> <li>• Set expectations for behaviour and role model the behaviour yourself.</li> <li>• Teach them strategies they can use to regulate their own behaviour, such as using words, asking for help, taking deep breaths, counting to three, or choosing to spend a few minutes alone.</li> <li>• Use strategies such as reward systems to increase prosocial (positive, helpful) behaviour.</li> <li>• Ensure that children participate in regular physical activity and spend time playing outdoors.</li> <li>• For Indigenous children, consider involving them in traditional health and healing practices such as tending to a medicine garden.</li> </ul>
<b>Their ability to accurately assess risk and reward is limited and still developing.</b>	<ul style="list-style-type: none"> <li>• Children may not have strong impulse control.</li> <li>• They may lack understanding of risks and consequences.</li> <li>• They may have difficulty putting off immediate rewards for long-term goals.</li> </ul>	<ul style="list-style-type: none"> <li>• Talk to children about taking risks, and the importance of thinking about the consequences.</li> <li>• Give them an outlet for healthy risk-taking, such as climbing and jumping, new social opportunities and activities.</li> </ul>