

## WHAT IS DOWN SYNDROME AND WHAT ARE THE EFFECTS THEREOF

- It is the result of **an oddity of genes** in the twenty first chromosome
- Usually have a **slow rate of learning and other physical symptoms**. Children with Down Syndrome are often very lovable hence the name “children from heaven”
- In order for the learner with Down’s syndrome to be included in school activities, the following **characteristics will need to be given consideration** :

MEDICAL ISSUE/ PHYSICAL CHARACTERISTICS	IMPLICATIONS	STRATEGIES
<p><b>Motor Skills</b></p> <p>Poor manipulation skills due to:</p> <ul style="list-style-type: none"> <li>• Hypotonia (low muscle tone)</li> <li>• Low shorter limbs</li> <li>• Reduced stamina</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Handwriting</b> may be oversized or undersized and light/sketchy</li> <li>• <b>Manual skills</b> like cutting, using concrete material &amp; equipment may be less accurate and completed more slowly</li> <li>• <b>Slow at drawing up tables, charts</b> etc</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Use alternate tasks</b> for recording eg: cut and paste for multiple choice questions</li> <li>• <b>Use large/adapted equipment</b> – ruler with a bridge for gripping</li> <li>• <b>Reduce the amount</b> of activities/work expected</li> <li>• <b>Provide proformas</b> in a larger size with some info already recorded</li> </ul>
<p><b>Visual Perception</b></p> <ul style="list-style-type: none"> <li>• Difficulty - ordering &amp; patterning</li> <li>• Reversal of images</li> <li>• Difficulty reading info presented in a random way</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to <b>perceive and predict a pattern</b> or sequence</li> <li>• Unable to <b>reliably read a number</b> eg: 43 becomes 34</li> <li>• Will <b>miss info</b> when presented in a cluttered or random manner</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Model patterning</b> by using concrete objects</li> <li>• <b>Rote learn numbers</b></li> <li>• When counting physically <b>touch or move or cross out</b> objects</li> </ul>
<p><b>Cognitive - Intellectual</b></p> <ul style="list-style-type: none"> <li>• <b>Comprehension/ interpretation</b> of verbal written instructions appear to be more advanced than actual ability level</li> </ul>	<ul style="list-style-type: none"> <li>• <b>May be more skilled</b> in reading than maths.</li> <li>• <b>Comparisons are difficult</b> as they vary in their abilities and skills</li> <li>• <b>Working pace</b> is slow</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Reduce the workload</b> so he can complete activities</li> <li>• <b>Teach components</b> of a skill in sequence. When mastered - model the whole process</li> </ul>

<ul style="list-style-type: none"> <li>• <b>Literal understanding</b> of vocab</li> <li>• <b>Abstract thinking</b> is limited</li> <li>• <b>Unable to transfer knowledge</b> to a new situation</li> <li>• <b>Unable to separate pieces</b> of information to form links</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Appear/confirm</b> to understand but fail to comprehend the task</li> <li>• <b>Misinterpret words</b> with more than one meaning eg light</li> <li>• <b>Unable to interpret</b> and complete a task</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Abstract concepts</b> need to be supported by using concrete materials and learn by rote.</li> <li>• <b>Teach each piece</b> of info separately while continually showing the links visually eg: <math>4+1=?</math> It won't mean the same to them as <math>1 + 4 = ?</math></li> </ul>
<p><b>Memory</b></p> <ul style="list-style-type: none"> <li>• <b>Short-term</b> memory is poor</li> <li>• <b>Long-term</b> recall is poor</li> <li>• <b>Difficulty recalling</b> and following the sequence of a process – eg. Using a calculator</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Unable to store info long</b> enough to process and respond to it</li> <li>• <b>Incorrect responses</b> to previously known skills</li> <li>• <b>Difficulty getting started</b> as they are unsure of sequence</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Use visual instructions</b></li> <li>• <b>Use over learning</b> and ongoing revision of skills</li> <li>• <b>Use rehearsals</b> (self talk) to go through a process</li> <li>• <b>Eg:</b> turn on the calculator, verbalise each number and symbol</li> </ul>
<p><b>Specific learning difficulties</b></p> <ul style="list-style-type: none"> <li>• Are <b>easily distracted</b> by visual distractions, noise &amp; movement</li> <li>• Experience difficulty attending when the task is perceived as <b>difficult or boring</b></li> <li>• Experience more difficulty attending to verbal info when they are <b>part of a large group</b></li> <li>• Experience <b>difficulty focussing</b> on and responding to key element of verbal info and tasks</li> </ul>	<ul style="list-style-type: none"> <li>• Work is <b>incomplete</b></li> <li>• <b>Adult intervention</b> is often required to keep the student on the task</li> <li>• The student will exhibit a <b>range of problem behaviours</b> – may not follow whole class verbal instructions – only follows the last instruction</li> <li>• Learner may pick up an element of the instruction and <b>go off on a tangent</b> in their thinking</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Remove</b> the student to a less distracting environment</li> <li>• Give <b>simplified instructions</b></li> <li>• <b>Use visual displays</b> of tasks to be completed followed by a reward/free time activity.</li> <li>• A number of <b>shorter tasks</b> produce better results than one longer task</li> <li>• <b>Redirect</b> the learner</li> <li>• Provide <b>visual prompts</b></li> </ul>
<p><b>Errorless learners</b></p>	<ul style="list-style-type: none"> <li>• <b>Difficult to correct</b> wrong responses</li> </ul>	<ul style="list-style-type: none"> <li>• Don't allow a learner to <b>practice/internalise an incorrect procedure/task</b> as it is difficult to unlearn and re-teach something</li> </ul>

**Failure Avoidance**

- **Refuse to attempt** a task if it is perceived as too difficult - like too much info, written or verbal, even if the task is appropriate
- Present **only a small task/** part of a task at a time
- Present activities in a **routine format**, intro changes to format or task gradually