

## VI. Curriculum Adaptation

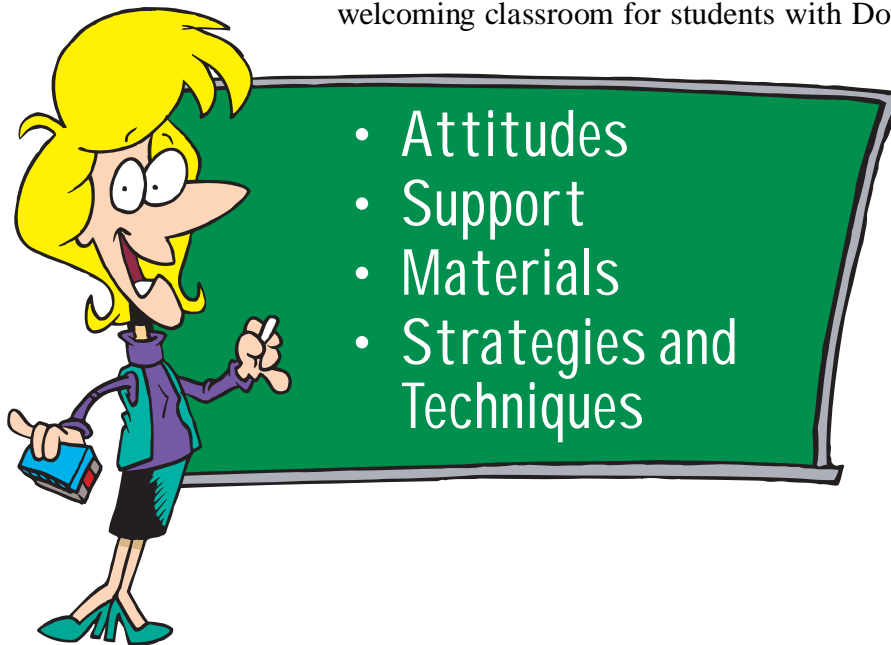
Curriculum adaptation is an ongoing dynamic process that modifies and adapts the prescribed program of studies to meet the learning requirements of a student with special needs. It enables the teaching team to welcome learners of all abilities and ensures that every student is challenged to learn.

Inclusion of a student with special needs is the collective responsibility of the entire school community, not the sole duty of the classroom teacher or education assistant. Curriculum adaptation is needed in every part in the student's day. Learning, socialization, independence and safety are assured for the student when *all* school staff are aware of their teaching roles in the classroom as well as in the halls, library, gym, playground and lunchroom.

Educators are encouraged to be open about their feelings and concerns and to welcome input from fellow staff members, parents and other professionals. A school staff orientation on Down syndrome often answers many questions, big and small. Speaking frankly about concerns or lack of knowledge can lead to information gathering and understanding, which will help solve the mysteries of working with a student with special needs.

The obstacles to learning that students with Down syndrome face are very real but do not preclude them from academic learning. With a positive attitude, education assistant support, professional development opportunities and resources, teachers have the keys to preparing a welcoming classroom for students with Down syndrome.

The following components are the keys to creating a welcoming classroom for students with Down syndrome:



*"I was nervous at first about having him in my class, but as time went on we BOTH became learners."*

*Grade 3 Teacher*

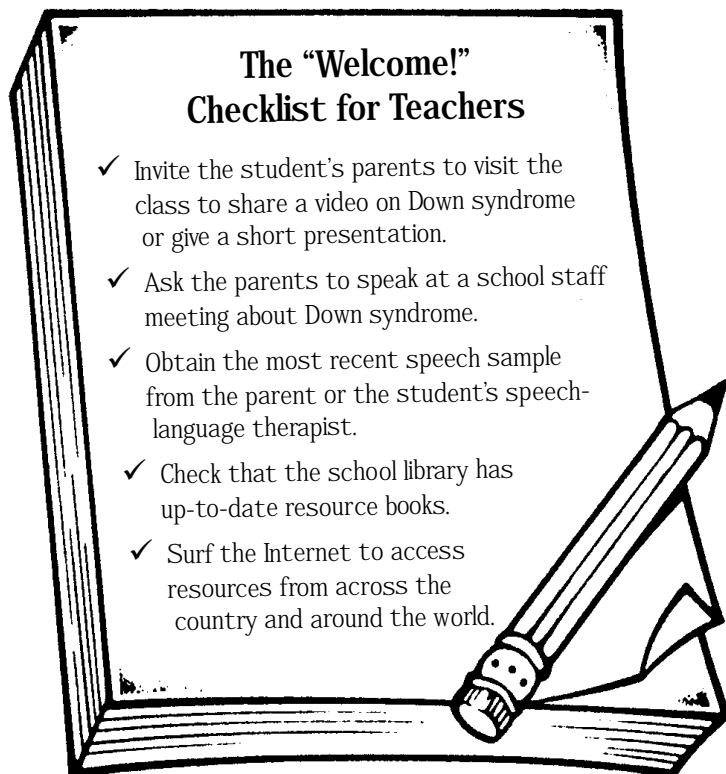
## A. Attitudes

Teachers in inclusive settings have demonstrated clearly that students with Down syndrome are capable of learning academics in the regular classroom. They model, through their words and actions, acceptance and understanding of the unique needs of individual students and reflect the attitude that, for the student with special needs:

- ✍ it is okay to be in this grade and not be at this grade level;
- ✍ it is okay to work with different materials and tools than the rest of the class;
- ✍ it is okay to need an education assistant to help with learning;
- ✍ it is okay to use modified tests; and
- ✍ it is okay to be different.

Teachers experiencing integration for the first time may not believe these statements at the beginning of the year. *That is okay too!* Attitudes change with experience and over time. Talk to teachers in the school who have faced a similar challenge in their teaching career. The most important advice they can pass on is to become a role model for students and parents and to portray, by their own words and actions, how they value diversity in the classroom. A student is treated as a valued and equal member of the class when the teacher:

- calls on him to contribute in group activities;
- expects him to learn classroom rules for courtesy and cooperation;
- recognizes his achievements in meaningful ways;
- prepares lesson plans that speak to all students;
- teaches classmates to view the student as a peer, despite his ability level or small size; and
- enforces consequences for teasing and bullying.



"Having this student in my class has made me a better teacher.

I look for new and interactive ways to teach my subjects.

All my students have benefited from what I have learned."

Grade 2 Teacher

## B. Education Assistant Support

Curriculum adaptation requires education assistant support. An open mind and willing hands are not enough to help students learn in the inclusive classroom. Students and teachers both benefit when an education assistant is present to provide supervision, tutoring and material preparation. With their knowledgeable support, academic and social skills can be taught that will foster independent learning.

The assistant allocation is determined by reviewing learning needs on an individual student basis. In the context of both the classroom and school milieu, considerations can include:

- the student's
  - receptive and expressive language abilities,
  - proficiency in reading and printing,
  - behaviour and social skills,
  - emotional and physical well being,
  - fine motor and gross motor development;
- curriculum requirements;
- class size and pupil/teacher ratio;
- diversity of student needs in the classroom; and
- the physical environment, (i.e., open versus closed classrooms) and classroom organization (i.e., groupings versus grade).

Education assistant support is critical in all grades to successfully include students in the school community. Hopefully, with age, maturity and skill development, an individual's need for direct assistance will steadily decline. Nonetheless, students with Down syndrome will always require an education assistant to ensure learning continues in the inclusive classroom.

## C. Materials

Get the right tools for the task! In order for curriculum adaptation to be effective, start with the basics. Provide the student with a **proper sized desk** with foot support to stabilize his body position. An angled desktop benefits students with fine motor difficulties. The angle makes directions of 'up' and 'down' meaningful for motor planning.

The next step is to obtain **appropriate developmental age tools and materials** such as pencil grips, special scissors and raised line paper. These articles may be available through a resource teacher or borrowed from teachers of younger grades. They will allow the student to better attend to and focus on the task at hand. Inappropriate tools and materials can cause frustration or fatigue and result in inattentive and non-compliant behaviour.

*"Printing was a chore until we introduced an angled desk top. He now enjoys going up and down the hill."  
Grade 2 Education Assistant*



**Adapting materials** using the following tips will improve the student's attention span, accuracy and ability to complete the assigned task.

- Subtle material adaptations have a greater chance of winning the student's approval. From a distance, raised line paper and a pencil grip are indistinguishable from what classmates are using.
- Design adapted materials to reflect the same theme and resemble what classmates are working on. Disguise changes to content only (e.g., the spelling book has the same cover as peers, but inside is a cut-and-paste or word-matching activity).
- Learning materials for subject tubs can be created by volunteers under the direction of the teaching team. Examples of tub materials are felt figures, cardboard dice and bingo games.

## D. Strategies and Techniques

### The Individual Program Plan (IPP)

The Individual Program Plan gives the teaching team the right and responsibility to adapt the curriculum to meet the student's individual needs. It is the tool used to plan and record student progress. The supervising teacher is the team captain responsible for coordinating input from the team of parents, the education assistant, resource teachers and other professionals working with the student. Parents play a valuable role in providing relevant, up-to-date information on their child's health, general development and community activities. Education assistants and resource staff provide assessment information and progress updates.

#### **An IPP:**

- is a mandatory requirement of Alberta Education for each student identified as having special needs
- is a written agreement by an educational team
- is meant to ensure the provision of appropriate programming for students with special needs
- establishes learning goals for your child
- states the special education and related services the school will provide for your child
- describes:
  - what the student now knows and is capable of doing
  - what and how the student should learn next
  - where the instruction will take place
  - who will provide it
  - how long it may take
  - what the student will do to demonstrate learning

"From *Partners During Changing Times: An Information Booklet for Parents of Children with Special Needs* (p4), by Special Education Branch of Alberta Education, 1996. Edmonton, AB: Alberta Education. Reprinted with permission."

The teaching team can make the IPP process simpler by setting goals that are *achievable within three months*. When goals are specific and broken down into small steps, the student and the education assistant have a meaningful and measurable plan for success. In conjunction with each reporting period, the IPP is reviewed and updated to reflect student learning.

“When my first JPP was done, it made things easier for me.  
I knew where I was going with my student.”

Grade 1 Teacher

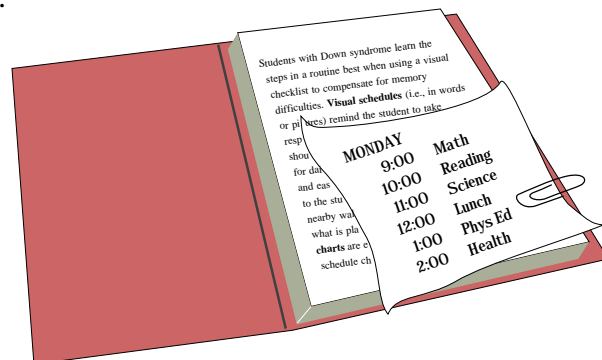
## The Basics of Curriculum Adaptation

### Adaptations in the Classroom

One measure of successful inclusion is to have the student engage in similar activities as his peers. The following suggestions are basic strategies that can be used in any classroom with any student.

Keep the **same timetable** as the rest of the class. The student should be working on his journal at journal time and completing math problems at math time. The materials and methods may vary from student to student, but it’s all the same subject matter.

Students with Down syndrome learn the steps in a routine best when using a visual checklist to compensate for memory difficulties. **Visual schedules** (i.e., in words or pictures) remind the student to take responsibility for his daily work. They should be easy to read, laminated to allow for daily changes and accessible for quick and easy reference. Taping the schedule to the student’s desk or posting it on a nearby wall makes a handy reminder of what is planned for that day.



**Pocket charts** are excellent to use when schedule changes are common. The cards can be interchanged quickly and teach students to sequence the day’s activities. **Job cards** list the steps in a specific activity. Students are encouraged to tick off each step as it is completed. The card is often the only prompt that is needed to keep a student on task and working independently.

A **quiet corner** in the classroom gives all students the opportunity to work in an area where there are fewer visual distractions and the rules for quiet are enforced. When class space is at a premium, **quiet folders** can be stood on the desk as a screen to offer students privacy for uninterrupted work time. Under the teacher’s instruction, the student can set up his folder for quiet reading, tests or journal entries. Students can decorate the outside of the folder to personalize it.

**Worksheets** are useful for practicing previously taught lessons. With appropriate adaptations, students with Down syndrome can complete a worksheet independently. Printing fewer questions in a plain, large font makes the worksheet easier to read. Simplifying vocabulary and grammar ensures the student comprehends the instructions. The addition of pictures, arrows, symbols or stickers provides motivating visual cues that help him to stay on task. Formats such as cut and paste and fill-in-the-blank are popular to use with students who have difficulty printing.

**Colour coding** is a common visual system that helps students identify and classify information. In younger grades, colours signal where to sit, hang up a coat and store a lunch box. In older grades, colour coding helps students organize and classify information. For example, in a research project, information can be colour coded and sorted according to topic. Colour coding is also often used to highlight subjects and breaks on the daily schedule (e.g., morning and afternoon subjects, gym and recess).

**Subject tubs** contain all the tools and materials that the student needs to work with in a subject area. Advance planning and preparation of materials ensures that he will always have meaningful work available to complete in class. The tubs should be stored close to his desk and be clearly labeled or colour coded for easy access. Direct teaching will be required initially to familiarize the student with the tasks in the tub. However, once he demonstrates sufficient competence, the education assistant can be free to assist other students or the teacher. Students enjoy the freedom the subject tubs provide when working alone or in small groups.

Incorporating the above strategies in the daily routine facilitates independent work habits and meaningful learning, and ensures students will spend the majority of their instruction time in the classroom.

### The Pros and Cons of Pull Out

Pull out from the classroom for one-to-one tutoring or therapy can work to the student's advantage. With fewer distractions, many students are able to focus on specific skills or learn new skills more effectively. Nonetheless, the question remains, "Can what is being taught in pull out sessions be taught in the classroom?" If the answer is "yes," then obviously pull out is not necessary for student learning. However, if the answer is "no," then the duration of the pull out needs to be carefully determined by the teaching team.

The primary goal is for the student to be taught with his classmates. Yet, noise and distractions that interfere with learning may dictate the need to work in a quieter area. Additionally, students learn many valuable skills more efficiently in pull out sessions than in the classroom. Two examples are individual speech therapy, which assists them to communicate effectively, and reading tutoring that helps them master reading independently. In these instances, pull out sessions have their place, but must be carefully designed to facilitate the student's return to his classroom for instruction.

When considering the pros and cons of pull out, the teachers' or parents' perceived need to expedite progress in academic, motor or communication skill development has to be balanced with the student's emotional and social needs. Take into account the student's perspective on being pulled out. What adults think might be advantageous or helpful may have serious personal and social implications for the student.

- He or his peers may perceive pull out as punishment.
- He becomes dependent on direct teaching.
- He does not learn to listen in group-teaching situations.
- He does not learn the social etiquette of the classroom.
- He misses out on the camaraderie of the classroom.
- He does not perceive the teacher as "his teacher."
- He looks to the education assistant as a primary disciplinarian and confidant.

To alleviate the above concerns, grouping students with similar learning needs is an alternative to individual pull out sessions. Small-group instruction ensures that classmates learn sharing, turn

taking and problem solving skills that would not be possible in one-to-one teaching. Even when a resource teacher or the education assistant provides the instruction, the teacher must have regular involvement with the group to ensure that students continue to see her as their primary teacher. Whether the activity permits the groups to work together at the back of the classroom or meet in a resource room, the teacher needs to check on their progress periodically. Having the students subsequently present their group work to their classmates on regular occasions will help their peers to understand *why* they go and *what* they learn.

Students will be more accepting of group pull out sessions that meet outside of the classroom when they are scheduled regularly and do not interfere with gym, library and art periods.

*“We couldn’t decide whether to have her remain for group discussions or have her go out for individual instruction, so we asked her. She chose to stay!”*

*Grade 5 Teacher*

## Testing

Testing is a valid indicator of knowledge *if* the test is adapted to meet the student’s ability and learning style. Students with Down syndrome are capable of becoming good test takers if the measure is modified to suit their needs. For example, for students who cannot print legibly, alternative test formats can include oral responses, multiple choice, true or false, fill-in-the-blank or the use of a scribe.

Once the test is adapted, students need practice in test taking. After all, the game plan must be the same for everyone. The rules of the test situation include; no talking aloud, avoid looking at your neighbor’s paper for help, don’t forget to put your name on top of the test.

## Homework

One of the beliefs of inclusion is that students with special needs are to be treated like their classmates, and that means no exception should be made for homework. With the right attitude and approach from the teaching team – and commitment from parents – homework is an opportunity for students to benefit well beyond classroom instruction. There is simply not enough class time for students with Down syndrome to practice foundation skills such as printing, reading and spelling. The additional work at home is essential if meaningful progress is going to be made on IPP goals. Long term benefits for the student include learning how to:

- manage time;
- set priorities;
- make choices (i.e., work first ... TV later);
- work independently; and
- complete projects.

Homework also benefits parents by familiarizing them with the academic program of studies and current themes in the classroom. They are then able to keep a closer check on their child’s progress. Involved parents who make homework part of their child’s after-school routine send a clear message that school work is valued. Students with special needs require their parents’ guidance and assistance with their studies, but if parents find themselves helping too much, it is time to speak to the teacher about further adaptations.

Teachers and parents can start by determining how homework assignments can benefit student learning, meet teacher/parent expectations and fit in to the family schedule. For example, extra medical and therapy appointments can consume after school play times and result in homework not being done. Two-way communication will determine a reasonable workload and ensure that the student is doing his work ... just like everyone else.

*"J must be honest, it is really difficult to make her do homework when she is so tired after school, but the results on her JPP have made the challenge well worthwhile."*

*Grade 4 Parent*

## Adapted Lesson Plans

Before the process of curriculum adaptation begins, all members of the team should be familiar with the student's cumulative file. Classroom observations combined with past IPPs, therapy updates and progress reports gives the teaching team the information needed to plan and implement a meaningful program of studies.

The framework for adapting lesson plans consists of a simple three-step formula that is versatile and can be applied to all subjects. As these components are applied and become familiar, the mysteries of curriculum adaptation will be solved.

### 1. Knowledge

In this step, identify **what the student will learn**. It is okay that *this* student's knowledge goals are different from those of the other students in the class. What is important is that the goals have meaning for the student and that the knowledge gained will further his learning.

### 2. Process

In this step, identify **how the student will be taught** and **what tools will be used**. It is okay that *this* student requires different materials and equipment than his peers. What is important is that the necessary adaptations are in place to ensure that the process is not an obstacle to learning. An example of "**how**" is reducing the number of items that the student is expected to complete on a test or research topic. An example of "**what**" is providing the correct writing tools so the student is not limited by fine motor skills and can persevere on the knowledge task.

### 3. Demonstration

In this step, identify **how the student will demonstrate learning**. It is okay that *this* student will present what he has learned using different techniques (e.g., poster board versus essay) and modalities (e.g., spelling with letter tiles rather than printing letters) to demonstrate both knowledge and process. What is important is that the student can independently show or tell others what he has learned.

*"J worked and worried about presenting the new math concept and when my student said, 'this is easy!' it was music to my ears."*

*Grade 3 Education Assistant*

"It took some real planning to decide how to approach the project. My student had difficulty working independently and I didn't want to make it 'my' work. We decided together what she would do and how she would present it. By including her in the planning process, it really helped me to keep goals in perspective. In the end, what she presented was her work."

Grade 6 Education Assistant



## Physical Education

Typically, phys-ed is the most anticipated period of the day! Students view it as a break to let loose, show off and socialize, but teachers recognize it as a valuable learning time. Not only do students have a chance to re-energize, but through physical activity they also learn independence skills. Often this class is one of the few opportunities for students with Down syndrome to be unsupported by the education assistant.

The desire to have fun with classmates is a big motivator! Students enjoy the camaraderie of group games, benefit from peer teaching and learn how to be a team player in phys-ed activities. The student with Down syndrome may not be the fastest or strongest, but he still deserves to be on the team.

Students need daily physical exercise to build strength, endurance and coordination. The natural benefits are weight control, cardiovascular health and maintaining an active lifestyle. Due to the chronic conditions associated with Down syndrome, it is always wise for teachers to check with parents to ensure there are no "red flags" to participation. Students can take part in most regular phys-ed activities, except those that place undue pressure on the neck. The neck is vulnerable to injury and needs to be examined periodically by a physician for atlantoaxial instability. Before allowing the student to participate in gymnastics, in tumbling, on trampoline units or in contact sports or skating, ask parents for a medical update. Some health issues may leave the student fatigued (e.g., thyroid) or breathless (e.g., asthma) but do not in themselves prevent the student from participating as he feels able. The effort and persistence it takes to still try one's best despite poor health is an inspiration to peers.

Team sports teach classmates to have patience and consideration for those with special needs. Avoid delegating the student with special needs to helper or coaching jobs on the sidelines. **He can only benefit from physical activity when included on the court or on the field.**

Sports tend to follow the "rules of the game" and the rules should bend but not break for students with special needs. With an "everyone participates" attitude, teachers can include the student who may lack the agility, strength or stamina of classmates. Students with cognitive delays can learn to respect rules and be good sports when the rules are modified to reduce their frustration. For example, in a basketball game adaptations could include extra chances for shots, more travelling time between bounces and a lowered net.

Equipment modifications that facilitate success and teamwork in phys-ed include:

- ① a bigger bat, racket or target;
- ② stationary verses moving targets;
- ③ softer or larger balls that are easier to grasp;
- ④ a lowered basketball hoop or volleyball net; or
- ⑤ lower elevations for jumping.



The skills learned in phys-ed will carry over into other subject areas. Listening to instructions, imitating actions, learning rules and cooperating in games all teach the student to “*look, listen and do.*”

## Report Cards

A frequently overlooked area of curriculum adaptation is reporting. Teachers are often uncertain how to measure student progress when it doesn’t “fit” the prescribed report card format. Yet, students with special needs are entitled to the same opportunities for assessment and reporting that other students enjoy. In most school jurisdictions there are at least three reporting periods. So, for students with special needs, it is recommended that there be at least three IPP updates.

Students like getting the same feedback classmates get and report cards reassure parents progress is being monitored. Although the “academic steps” of a student may be smaller, not up to curriculum standards and cannot be marked in traditional ways, his achievements are still meaningful and should be measured. Give marks that reflect each student’s progress in a meaningful way academically as well as for personal growth, social development, work habits and effort in all subject areas.

Older students are particularly aware of how marks indicate progress. Seeing an improvement in marks can be a motivator to do their homework, pay attention in class and study for exams. Improved marks become a personal goal for the student and a source of pride for parents and the teaching team as well.



## Appendix I

### Suggestions for Subject Adaptation

Lesson Plan	What Other Students Are Expected to Learn	Knowledge for Student with Down syndrome	Process	Demonstration
Story writing	Write a story about a special event	To recognize beginning, middle and end of a story	Use beginning, middle, end boxes Word webs Real life pictures Use of a scribe Colour code beginning, middle, end	Tell their story to the class using boxes/pictures to cue student
Novel study	Read and summarize one chapter of novel	Answer 5 "what" questions on assigned chapter	Listen to taped chapter 3 times Highlight pertinent text Draw main character Complete fill-in-the-blank worksheets Answers at the top	Answer questions by: – multiple choice – fill-in-the-blank test – oral test
Spelling	Memorize 18 theme spelling words for a Friday test	Choose 7 one-syllable theme spelling words for a Friday test	Comprehension check Raised letters Sand box Games like Bingo and Hangman Add words to personal dictionary	Take spelling test using: – scribes – letter tiles
Science	Photosynthesis	Learn how plants grow, why they need sun and water and why plants die	Hands-on: plant a seed Picture summaries of growth Comparison study: one plant gets water and sun but the other does not	Oral report on the comparison study Fill-in-the-blank test
Science Research Project	Choose a mammal and 5 sub topics to research and report on	Choose a mammal and 3 sub topics to report on	Brainstorm 10 questions with the student Sort into categories Prepare 3-step job cards for each category Information search in library Prepare a scrapbook/poster of collection info.	Display project Oral or video tape presentation
Social Studies	Provinces of Canada	Calgary	Student focus: What do I do? Where do I go? Map of neighbourhood with home, school, store and sports Measure distances Relate community to city: downtown, zoo, river, mountains	Map or 3D model Photo album of "where I go" and "what I do" in my community

## Appendix II

### Education Assistant: Sample Job Description

#### Role in the Classroom

- To implement IPPs and therapy plans under the direction and supervision of the student's teacher or therapist.
- To assist the supervising classroom teacher in curriculum adaptation and to access appropriate teaching materials to meet the student's needs.
- To share observations made of the student's behavior and learning in the classroom with the teacher and to participate in regular evaluations of the student's progress.
- To encourage and facilitate the student's participation in group activities.
- To assume responsibility for the student's safety and well-being following the directions of the classroom teacher.
- To attend to the personal needs of the student (i.e., toileting, dressing) as required.
- To receive the student on arrival and ensure that he is released to an authorized person on departure.
- To encourage and reinforce the student's independent learning skills.

#### Role in Parent Communication

- To assist the teacher in making parents and volunteers feel welcome and comfortable in the classroom.
- To respect and ensure client and classroom confidentiality.
- To attend parent-teacher conferences as requested by the teacher.
- To maintain regular communication with the home, using a communication book under the teacher's direction.
- To explain and model appropriate strategies and techniques for parents and volunteers as needed.
- To advocate for the student's safety, well-being and social acceptance in the school community.

#### Role in Teamwork and Collaboration

- To actively participate in planning and placement meetings, sharing up-to-date reports on the student's work in progress.
- To promptly report observations and/or concerns regarding a student's health or progress to the teacher.
- To research and share ideas for program planning.
- To respect and maintain identified avenues of communication.