Physical disabilities

A resource for educators

Ngā Hauātanga ā-Tinana

He rauemi mā te kaiwhakaako





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Introduction

This booklet provides guidance and outlines some of the practical strategies educators can use with students who have physical disabilities. It aims to give you information you can use (alongside your knowledge and judgement about the classroom environment and your students) to meet the different learning needs within your classroom.

You will find most students with physical disabilities will achieve success alongside their classroom peers – and small adjustments to your regular teaching and learning programme will work well. Other students may need more support to succeed.

The strategies outlined in this booklet will be most effective when used in the context of good planning, knowing your students and what makes each of them unique, setting goals and using regular inquiry into what works and what doesn't.

Discuss the strategies with other teachers or your school's learning support coordinator to find out how to best adapt them to your context and to suit the individual needs of your students.

Physical disabilities - what are they?

Physical disabilities are difficulties associated with sitting, standing, getting into position, moving, communicating, using and manipulating classroom tools and materials and self-care.

How physical disabilities can influence learning

Every situation and every student is different. Students may need significant help with all day-to-day tasks or may work independently.

Their experience will vary, depending on the nature of their physical disability, whether it is short term or long term, their family setting and circumstances and individual factors such as age and personality.

Students with physical needs may find it challenging to:

- safely move around classrooms and the wider school environment
- manipulate and use some learning tools and materials, particularly writing tools

- access or participate in some curriculum activities, for example, physical education and technology
- carry out personal care tasks such as using the toilet, eating and changing clothes
- move and get into position to learn.

How can I prepare for a student with physical disabilities?

Start by talking with the student, their families, whānau, specialist teachers and other members of your student's team to understand your student and his or her learning potential.

You will find a student's family, whānau and specialists know the student best and will be a key source of information. Talk to them (and your student) to build a good understanding of a student's practical, emotional and learning needs.

Share with parents, family and whānau the knowledge you gain about teaching their child. Encourage them to support learning at home. Share their child's success with them. Involve them – and your student – in key decisions. Connect families and students with other people in your school community.

You may also like to consider using the Individual Education Plan (IEP) process to help you prepare and plan. The IEP process can be a good way to bring people together to plan collaboratively and doesn't always need to result in a formal IEP plan.

The most important thing is to prepare and plan well and to regularly review what you do and what's happening.

For more information on the IEP process, refer to the Ministry's IEP guidelines, *Collaboration for Success: Individual Education Plans*, available in print and online at www.seonline.tki. org.nz/IEP/IEP-Guidelines

Starting out - ideas to think about

There's no onesize-fits-all All of your students bring a huge variety of skills, needs and interests to their learning. These differences are as unique as their fingerprints. Students want access to learning in the way that works best for them.

Know your student

Talk with the student, family, whānau, specialist teachers and other members of your student's team to come to understand your student and their learning potential. Find out about the student's interests, likes and the things that motivate the student.

Ako

Be a learner as well as a teacher. Reflect on the impact of your practice and actions.

- What is important (and, therefore, worth spending time on, given where my students are at)?
- What strategies (evidence-based) are most likely to help my students participate and learn?
- What has happened as a result of my teaching and what will I need to do next?

You don't need a separate curriculum

Take a flexible, inclusive approach to teaching and you will find very little, if any, adaptation to the curriculum is required. Be flexible in the goals you set, as well as the teaching methods, materials and assessments you use.

Plan and prepare

Talk with and involve your student, their parents, family, whānau and other specialists.

- ▶ Build a team around your student.
- Develop a good learner profile.
- > Set clear goals and check in often.

It matters how you 'see' disability Be a disability champion in your school and your classroom. See the student first (not their disability). Look at the world through your student's eyes. Understand how societal attitudes towards disability can create barriers for students. Design your classroom in a way that removes those barriers and works for all students and all ways of living in the world.

Teaching students with physical disabilities - a framework

There is extensive well-documented evidence about the teaching approaches that consistently have a positive impact on learning.

The evidence says all students need teachers who:

- create supportive learning environments
- encourage reflective thought and action
- enhance the relevance of new learning
- facilitate shared learning

- make connections to prior learning and experience
- provide sufficient opportunities to learn
- inquire into the teaching-learning relationship.

Creating an accessible and supportive learning environment

Accessible and supportive classrooms can be a rich teaching resource for helping students learn about diversity and positively relate to one another.

They can foster student collaboration, problem solving and learning and give all students a sense they belong at school and can participate.

There are many ways you can create a more accessible and supportive school and classroom environment.

Here are some key questions to think about and discuss with your students and their families and whānau.

School environment

- Can the student move through the school doorways and corridors easily and safely?
- Are the school toilet areas easy to access with accessible toilets and hand washing facilities? Do wheelchair ramps need to be installed?
- ▶ Is the outside equipment safe to use and does the student feel safe using it?
- Do you need advice from a Ministry of Education school property advisor, physiotherapist or an occupational therapist?
- Will staff need to make allowances for any additional time a student might need to move around the classroom, between classes and throughout the school grounds?
- Does the timetable need changing to allow the student easier access to classrooms and to reduce the travel distance between classes?

Peter, five, has just started school. He is fearless, loves to play soccer with his friends and climb on the playground. Peter has hemiplegia where one side of his body doesn't function as well as the other. But it's something he often forgets about in his enthusiasm to be part of the action.

Classroom environment

- Are all classrooms well set up and fully accessible?
- Is the classroom uncluttered?
- Do you need class rules to keep bags well stowed and chairs pushed in?
- Can students move around easily, view the board and sit and work alongside their peers?
- Can the student use all the tools and equipment in class and participate in all curriculum areas?
- Is any additional assistive technology required (such as specialist classroom furniture, writing tools or assistive technology such as a light weight keyboard)?

Alice, 14. loves science and maths. She's just returned to high school after a six-month period of chemo and radiotherapy treatment for a brain tumour. Like any teen, Alice missed her friends terribly but kept in regular contact by text and Facebook. She's back in class half time, but needs support from an occupational therapist and physiotherapist and time out for hospital check ups. At the moment, she is using a wheelchair to get around until she's strong enough and has the balance to use a walking frame.

Using the key competencies to guide teaching

The New Zealand Curriculum identifies the key competencies students need to live, learn, work and contribute as active members of their communities.

These key competencies are relevant to all students and all learning areas. They include:

- thinking
- using language, symbols and texts
- managing self
- relating to others
- participating and contributing.

Two of these competencies are explored in more detail on the following pages to show how they might relate to students with physical disabilities.

The New Zealand Curriculum key competencies

Teaching support

Participating and contributing

All students need the opportunity to be actively involved in the life of their school, the activities of their classroom and in the wider community. This includes having opportunities to contribute as a group member and make connections with others.

Many students with physical disabilities will face barriers in the school and classroom related to physical movement. As a result, they may lack confidence and feel different to their peers and out of place at times.

You may need to adapt tasks, the classroom setting or introduce technology for students to participate and contribute. You may also need to create opportunities for students to build friendships, develop a positive sense of self and take part in group activities they enjoy and are good at.

The New Zealand Curriculum key competencies

Teaching support

Managing self

All students need the opportunity to become self-motivated, develop a can-do attitude and see themselves as capable learners. This includes the ability to assess and manage themselves with independence.

Students with physical disabilities may need additional support to manage themselves with independence, achieve personal goals, make plans, manage projects and take the risks involved with learning something new.

You may need to allow students to present information in formats other than writing. For example, as pictures, video clips or by using a digital recording device to capture a student's ideas and thinking. Allowing use of these formats may also help students lessen the fatigue involved with writing.

You may need to set up your classroom in easy-to-understand, clear ways. Supporting a student to master the technology they need to learn may also work well.

Using the learning areas to guide teaching

The New Zealand Curriculum identifies eight learning areas that are important for a broad general education, including English, the arts, health and physical education, learning languages, mathematics and statistics, science, social sciences and technology.

There are five general strategies that are useful to keep in mind all the time and a range of specific strategies to consider alongside questions you may ask yourself as part of the teacher inquiry process.

All learning areas: Five general strategies

- Adjust the classroom environment to support learning remove physical barriers by introducing technology and adapting the classroom environment to support participation and build up a student's sense of self esteem and independence.
- Present curriculum content in different ways. For example, students with physical disabilities may benefit from having access to digital teaching and learning resources or worksheets they can fill out to lessen the amount of writing they have to do.
- Provide options for students to express what they know give students the opportunity to choose how they want to present and express their knowledge on a topic, for example, using video or graphics if they struggle with oral or written communication.

- 4 Stimulate interest and motivation for learning adapt your lessons and introduce alternative options for students to demonstrate what they know and can do. For example, you might want to lessen the amount of writing required for students who fatigue quickly from the pain and effort required to copy from the board.
- Use technology give students access to technology such as a laptop, desktop computer or iPad to develop their ideas and present their work. Alternatively, technology such as ergonomically-designed pens or a slope board, in conjunction with classroom furniture adjusted to the right height might work well for students who find handwriting a challenge.

Questions and strategies for all learning areas

TEACHER INQUIRY QUESTION

How do I strike the right balance between providing students with the necessary support on the one hand, while helping them become more independent on the other?

- Observe your students carefully to decide what they can do independently, when and where.
- Identify your student's skills and what he or she enjoys - use this information to plan your classroom activities.
- Give students time to get to know and be comfortable in the classroom environment.

- Learn the basics of any specialised equipment your students use - in turn, support them to use, care for and maintain it.
- Provide opportunities for students to demonstrate and express what they know about their equipment.
- Set up a buddy system where classmates take turns in giving students with physical disabilities a hand to complete difficult tasks (for example, setting up science equipment or stowing heavy bags).
- Encourage your students to be independent by involving them in all school activities, including camp and any Education Outside the Classroom activities. Plan ahead to make sure sites are accessible and all students' needs are catered for.

What should I do to make sure my teaching practice supports all students to **learn about** and value diversity?

STRATEGIES

- Create a collaborative classroom environment where all students have the opportunity to share.
- Give students the opportunity to express their opinions and take their opinions into account.
- Organise schoolwide visits and presentations from people in your community with disabilities, including physical disabilities.
 - Ask them to talk about difference and why accepting diversity is important.
 - Ask your students to reflect on the way attitudes towards disability have changed over the centuries and to imagine a future where acceptance and inclusion are the norm.

TEACHER INQUIRY QUESTION

What is my role in the **personal care** of students?

- Establish clear routines if the student requires assistance using the toilet. This might mean:
 - ensuring one-to-one help is available
 - providing assistance to open doors.
- Set up a buddy system for a student needing help to get into or open a lunch box, open packets or bottles or go to the canteen to buy lunch.
- Check with the student if they would like a buddy system where classmates take turns at carrying the student's books or providing other physical support when asked for.
- Talk to an occupational therapist about different property adaptations that might help a student manage their own personal care, for example, installing a bidet may be a good option.

How can I support a student who uses specialised equipment to be **present**, **participate and have maximum independence** in the classroom?

- Check on what equipment the student will need at school - different equipment might be needed in different settings.
- If equipment is to stay at school overnight, think about where it should be stored.
- Learn the basics (use, maintenance and trouble shooting) of any specialised equipment your students use and support them to use it. You might need to talk to the family or a therapist. Know who to contact if something goes wrong with the equipment.
- Provide opportunities for your students to demonstrate and express what they know about the equipment they use and how it works.

- Think about adjusting the classroom environment by:
 - allocating a space to park a walking frame
 - providing an additional desk or cubby hole for extra equipment or books
 - ensuring there is enough space to provide wheelchair access to a desk.
- Would a different seat or a footstool give your student better access to work benches, as well as greater comfort, less pain, increased stability and safety during class?

What particular **health or safety** issues need to be considered?

- Find out if fatigue is an issue. And, if so:
 - ask what signs of fatigue to look for and when fatigue is likely to occur
 - agree with the student and family how the student's fatigue is to be managed, for example, time out or time to rest?
- If the student experiences pain:
 - agree with the student and family how the student's pain is to be managed, for example, medication, time out or using a quiet rest area
 - find out if medication is required for pain relief.

- Be familiar with your school's policy on the administration, storage and management of medications used at school and check to see if your student's family need to provide a signed medication plan.
- Understand that risks will vary for each student and each situation. Check with the family and student about their concerns in different contexts, for example, going on camp compared to changing classrooms for maths.

What are some of the different ways I can encourage students with physical disabilities to **participate** and **contribute** in the classroom?

- Encourage open communication listen to any suggestions from the student about how they might best complete an activity. Sometimes they may want to give things a go and in other situations they might prefer to have some help.
- Involve the whole class in group discussions that lead to group collaboration and problem solving.
- Provide students with lots of positive reinforcement and feed forward or instructions about how to make the next step in their learning.

- Provide a range of options for the student to express what they know. Students who find it hard to get their ideas across in writing may prefer to use digital tools and visual aids such as a photoboard, digital presentation, visual schedules or a poster to communicate their thoughts and understanding.
- Stimulate interest by integrating topics such as famous people with physical disabilities into your social sciences or physical education curriculum.
 - Choose people such as Californian paraplegic surfer Jessie Billauer, Welsh paralympian Dame Carys Davina 'Tanni' Grey-Thompson or New Zealand amputee Mark Inglis.
- Use their examples to help build a sense of confidence and self esteem in students with physical disabilities.
- Give students plenty of alternatives to playing team games or taking part in tasks they find particularly challenging, for example, coaching younger students, planning or scorekeeping.

What **information** do I need to know about the student and who should I **share** this with? I know that it is important to treat this personal information with care.

STRATEGIES

- Talk to the student and their family to be clear about what information should be shared and who it can be shared with.
- Find out how personal issues such as the use of the toilet will be managed.
- If the student has some specialised equipment, find out who needs to know about it.

TEACHER INQUIRY QUESTION

How can I **organise the classroom** to support students?

- Look at the New Zealand Qualifications Authority guidelines for Special Assessment Conditions to give students who find it challenging or painful to write the option of having extra time and sitting tests and exams using a reader-writer (someone who reads the exam questions aloud and writes down the student's answers).
- Support students with physical disabilities to prepare for tests or exams by giving them study guides that cover the key words and concepts or lessons provided in a video or podcast format.
- Use technology to enable students with physical disabilities to participate and contribute. For example, you may want to encourage students who fatigue easily to use digital books (and avoid sitting in position and holding a book upright to read for long periods).

How can I lessen the amount of writing students need to do within each learning area?

- ▶ Be clear about the purpose of writing in your lessons.
 - Ask yourself: 'Is copying the date at the top of the page essential to the handwriting task?' If not, change the task so your student can complete the activity.
 - Ask yourself: 'Am I asking for handwriting legibility or am I asking my students to express their knowledge in writing?'
 If it is the latter, let students express their knowledge using their voice and a dictaphone.

- If a student finds it challenging or painful to write explore options such as:
 - having extra time
 - reducing the amount of writing
 - using worksheets.
- Consider providing a student with a buddy who can act as a scribe or to share lesson notes as an alternative to copying information from the board.

What tools and materials might help lessen the physical demands of an activity?

STRATEGIES

- Try ergonomically designed pens and pencils, gel pens, weighted pencils and pens or pencil grips.
- Avoid letting a student struggle with handwriting. Instead, encourage them to think about assistive technology.
- Consider using digital books in class they are lightweight and page turning is easy.
- Encourage students to present information and what they know in ways that suit them, for example, as a video recording or PowerPoint presentation.
- Keep in mind, equipment in the technology rooms or labs may require some modification to give students with disabilities better access to science lessons.

TEACHER INQUIRY QUESTION

How can I support students with physical disabilities who **feel frustrated** about not **keeping up with their peers** in physical activities?

- Talk to students about how they want to approach difficult physical activities. They might prefer to:
 - use a larger ball
 - run a shorter course
 - work with a buddy as a coach.
- If general fitness is an issue, then suggest they:
 - do activities with a buddy
 - get advice from a physiotherapist on how to build up their physical fitness.

How can I support students to manage themselves?

STRATEGIES

- Give students time to dress for physical education classes.
- Would students find it less tiring and difficult to keep up if you slowed the pace of your instructions or gave them additional time to complete their work?
- Consider giving students time out or make it okay for all students to rest when they need to or get water when they need a break.

TEACHER INQUIRY QUESTION

How can I keep students interested in developing their physical skills?

- Think about your teaching goal in the activity. Ask yourself: 'Am I asking for the demonstration of particular motor skills and movement or am I asking my students to develop a positive attitude towards physical activity?'
- Talk to your students to find out what will motivate them - they may have a personal goal they would like to achieve and some ideas about how to achieve it.

How can I help students prepare for changing schools and leaving school?

- Plan well ahead for students changing schools or moving on to secondary school.
- Talk to students and their families about the changes - they might be happy to arrange everything themselves or they may prefer to have your support.
- Consider setting up a planning meeting where a student, their family, you and someone from the new school can share information and set goals. Together, arrange a school visit.

- If modifications have been made to your classroom or school environment, then it is possible similar changes may be required at the student's next school. Talk to the school's Ministry of Education property advisor about the process you need to follow. Talk to the occupational therapist involved in the original property modifications for information.
- Think about the issues that have been important for the student in your classroom. Make a list that could be shared with the next teacher and school.

Student examples

Here are two practical examples of how you might put some of the ideas outlined in this resource into practice. One focuses on a primary school student with physical disabilities, the other looks at a student in the secondary context.

Primary school

Moana is eight and loves music, dance and reading. She has a short stature of .65m (two foot, 10 inches) and requires additional steps and modified chairs to ensure she can reach desks, the white board, workbenches, the toilet and wash-hand basins.

She fatigues easily and is vulnerable to being knocked over in busy areas of the school. Moana finds it difficult to manipulate small objects and use tools. But she's an excellent problem solver.

Moana the student

- Develop goals that focus on Moana's ability to physically participate in all classroom activities
- Consider Moana's interest in music and movement when planning activities.
- Involve Moana in decision making by encouraging her to use her problem solving skills.
- ► Take into account how fatigue might influence Moana's activity over the course of the day.

- ▶ Talk with Moana's family about how you will communicate with each other and share ideas about solving physical challenges.
- If you think Moana's fine motor skills or personal care needs prevent Moana participating in class, look into specialist assistance from an occupational therapist. Talk to her family first before contacting the Ministry of Education.

Moana's learning environment

- Speak with Moana's previous class teacher to find out what approaches work best.
- ▶ Be prepared to make allowances for the time it takes Moana to move around the school.
- Include a wide range of materials and equipment in classroom resources to provide options that Moana can use.
- ▶ Modify Moana's learning tasks only if necessary.

- Think about if you need to change how the whiteboard, desks and breakout areas are organised in your classroom.
- ▶ Do any changes need to be made to the wider school environment to give Moana better access to the toilets and wash basins?
- Can Moana hang her school bag up independently?
- What things do you need to consider to ensure Moana's safety in the playground?

Teaching Moana

- English (writing) In class writing activities, distinguish between the technical aspects of writing and the generation of ideas. Allow the class to take turns using computers to record ideas and write stories. Discuss with Moana what she has used in the past to support handwriting. You may need to consider assistive technology options.
- English (reading) Build on Moana's love of reading and help her to avoid the fatigue involved in page turning and managing large or heavy books by introducing e-books into the classroom. Within a group reading situation, make sure the other students know how to help Moana but not do the work for her.

- Mathematics Give Moana opportunities to use and develop her problem solving skills when it comes to finding resources and using equipment.
- Health and physical education Incorporate group activities to support Moana to participate and feel part of the class.
 Consider Moana's interest in dance and music when planning the class activities.

Secondary school

James, 14, loves physics and chemistry. He enjoys going to the mall and the movies with friends and has a growing interest in cosmology and outer space.

He has mild cerebral palsy and finds getting around school tiring, which means he is sometimes late to class or tired when he arrives. His balance, strength, fine motor skills and speech can be problematic. James is determined not to let his disability get in the way of completing everyday tasks and doing well at school, which is why he is working with an occupational therapist to develop the strength and coordination needed to get up and down stairs.

He has also starting using an iPad with an attached keyboard to record his ideas.

James the student

- Discuss with James his learning goals and the type of support (if any) he will need in each subject or learning area.
- Plan with James how much he wants teachers and his peers to know about his condition and who he wants to tell. See if he wants to help write a learner profile that can be distributed to his teachers.
- James's physical disability does not impede his ability to succeed at school. Make sure all his teachers know how to give him physical access to the full curriculum.
- Discuss with James how he can manage his fatigue.
- Establish good communication with James and his family so you can support James together. Talk about his aspirations for university and how to plan for that step in his life.

James's learning environment

- Find out if James can access all areas of the school and if the timetable can be adapted to reduce the distance he needs to walk between classes.
- Find out if he is able to access all equipment? His occupational therapist will be able to help with ideas on improving access.
- ▶ How is James getting to school? You may need to apply for transport assistance.
- Think about ways you can give James easy access to study notes, can you utilise the school's learning management system? Or could you email them to him as worksheets he can access on his iPad?
- When physical adaptations need to occur, think about how these can naturally occur within the activity so it doesn't feel extra or special.
- Think ahead for example, what evidence needs to be gathered for his Special Assessment Conditions application?

Teaching James

- ▶ English/social sciences Find out if there are any texts available electronically to avoid James having to carry them around school?
- ▶ Science Consider James's safety in science classes. Long burning matches may help when he is lighting the Bunsen burner. It may also help to have taps that can be turned on and off using levers (instead of taps).
- Mathematics Provide students with a range of tools, for example, bendy curves that are easy to manipulate and use for drawing curves and graphs.
- Physical education Talk to James's physiotherapist for strategies on increasing his strength. Incorporate strength activities into the class routine for everyone. Give James the extra time he needs to change before and after PE and be available for extra help if he needs it, for example, help tying his laces.

Vseful contacts and resources

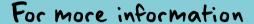
ccs.org.nz - website of CCS Disability Action, featuring a wide range of information and resources on various physical disabilities.

halberg.co.nz – website of the Halberg Disability Sport Foundation with information and resources on sport and recreation for people with physical disabilities.

> http://inclusive.tki.org.nz -Ministry of Education's Inclusive Education Online Knowledge Centre

seonline.tki.org.nz – Special Education online (Te Kete Ipurangi) Ministry of Education website about special education for the education community.

udlcenter.org - a website about an American curriculum development approach called Universal Design for Learning.



For information about services and support available to children with special education needs, visit **www.education.govt.nz** [search word special education].

For more specialist classroom, teaching and curriculum resources, visit the Te Kete Ipurangi website www.tki.org.nz

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How physical disabilities can influence learning

CHALLENGES

Will vary from student to student

- Moving around safely.
- Moving and getting into position to learn.
- Manipulating and using some learning tools and materials.
- Accessing or participating in some curriculum activities.
- Carrying out personal care tasks.



TEACHING OPPORTUNITIES



Adjust the classroom space

- Check the classroom, doorways and toilets are easy to access.
- Keep the classroom free of clutter.
- Create space in class for equipment and technology.



Adjust the classroom programme

- Use worksheets and digital resources to lessen the amount of writing required.
- Give alternatives to physically challenging activities.
- Give students choice about how they want to present and express their knowledge on a topic.
- Involve all students in all school activities, including camp and any outdoor activities.

TEACHING OPPORTUNITIES



Provide extra time

- Give students time to get to know and be comfortable in the classroom.
- Give students extra time to complete work.
- Make it okay to rest and take a break in class.
- Give students extra time to move around the classroom and between classes.



Use technology and equipment

- Check if assistive technology is needed and how it is used in class.
- Have students use technology (for example, laptop, computer or tablet) to present their ideas and work.
- Allow students to use digital tools and equipment instead of writing.
- Encourage use of graphic organising software and tools.

TEACHING OPPORTUNITIES



Focus on personal care

Check if fatigue or pain are issues and find out how they are managed.

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