

# Teaching students with autism: Strategies for secondary school teachers



School resources

This resource provides an introduction to challenges that students with autism spectrum disorder may encounter in mainstream secondary school settings, and research proven strategies that can be used to support students who may be facing these challenges.

## What is autism?

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that can affect an individual's social interaction, behaviour, and communication skills. Individuals with autism may display fixed interests, compulsive and repetitive behaviours, and struggle with unexpected change in routines.

Although these are common traits associated with autism it is important to remember that autism is a spectrum disorder and can therefore affect individuals in very different ways and with varying levels of severity. For a detailed overview of autism spectrum disorder (ASD), see our research guide [Autism: an overview](#).

## Transition to the secondary school environment

Transitioning from primary school or intermediate to secondary school poses many challenges for students with autism. Some of these challenges come from environmental changes such as being in a new place, the overall size of the school, a possible increase in student population, the need to move from classroom to classroom, and the increased frequency of school bells. Other challenges include the change in the structure for teaching and learning, the emphasis on assessment, and the more general struggles of adolescence<sup>1</sup>. These challenges are faced by all students regardless of diagnosis, although the impact that these challenges may have on students with autism can be significant as they may not be equipped with the same coping skills as their neurotypical peers.

## Sensory needs

It is common for students with autism to experience difficulties in processing and regulating sensory information. Sensory information includes sounds, sights, smells, touch, taste, balance and body awareness (such as temperature). Students may have an under-sensitivity, over-sensitivity, or possibly a mixture of both, to certain sensory information. For example, a student with an over-sensitivity to noise may become unsettled and irritable with the frequency and volume of school bells, or the noise of chatter and movement in the corridors in between classes. In circumstances like this the student may need to wear headphones or earmuffs. If a student has a combination of over-sensitivity to noise and too much movement in their sight, then they may need to leave class five minutes earlier than their peers while wearing headphones. This example is an illustration of the complexity of possible sensory needs in the secondary school environment. Each case will need to be assessed based on individual student needs. Primary school teachers, family members, and specialists will be able to provide helpful information about a student's history with sensory issues.

## Transition visits

The unfamiliarity of a new environment and the demand for students to be flexible can be both daunting and overwhelming for students with autism. Where necessary and achievable, transition visits can be used as a tool to help prepare students for their new school. Transition visits should be arranged in

consultation with the student, their family, the primary or intermediate school they are coming from and the secondary school they will be attending. If other professionals such as speech language therapists, occupational therapists, RTLBs, or outreach teaching specialists are working with a student, they should also be included in the transition process. Consultation allows for a thorough handover and ensures that relevant information about effective teaching and learning strategies, behaviour, communication, and other additional learning support needs are discussed with all of those concerned.

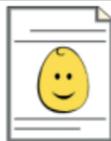
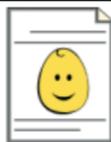
### Buddy systems

Putting a buddy system in place is another strategy that can be used to support students who may be overwhelmed by the changes required to transition to secondary school. A buddy is usually another student who has the same or similar timetable as the student with autism. A buddy can accompany the student from one class to next and demonstrate appropriate responses to situations: for example, when they hear the bell ring, they remind the student with autism of the relevant next steps both verbally and by physically performing the action. Having a buddy can lessen anxiety and the demand placed on the student with autism, and may also assist that student in developing new routines with the overall goal of increasing student independence. Teacher aides or other supporting adults may also be used in a buddy-like capacity, although this will not provide the same opportunities for peer interaction.

There are a number of ways that buddy systems can be introduced: for example, a student may have one buddy that is in all of their classes, alternative buddies for different days of the week, or one buddy for core classes such as Maths, English, and Science, and another for options classes like Food Technology and Visual Art, as shown in the examples below.

**IMAGE 1** An example of a simple **rotated buddy system**

## Sam's Buddy Roster

Monday	 insert picture	Nathan is my buddy on Monday and Tuesday. If Nathan is away, Juanita will be my buddy.
Tuesday	 insert picture	Alice is my buddy on Wednesday. If Alice is away, Martin will be my buddy.
Wednesday	 insert picture	James is my buddy on Thursday and Friday. If James is away, David will be my buddy.
Thursday	 insert picture	
Friday		

**IMAGE 2** An example of a **subject based buddy system**

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Hard Technology Buddy: Cameron	Maths Buddy: Megan	Sports Science Buddy: Chris	Social Studies Buddy: Megan	English Buddy: Megan
Maths Buddy: Megan	Science Buddy: Chris	Science Buddy: Chris	English Buddy: Megan	Science Buddy: Chris
Tutor Group				
Interval				
Physical Education Buddy: James	English Buddy: Megan	Physical Education Buddy: James	Hard Technology Buddy: Cameron	Health Buddy: James
Social Studies Buddy: Megan	Hard Technology Buddy: Cameron	Social Studies Buddy: Megan	Maths Buddy: Megan	Sports Science Buddy: Chris
Lunch				
Sports Science Buddy: Chris	Social Studies Buddy: Megan	English Buddy: Megan	Science Buddy: Chris	Maths Buddy: Megan

The amount of time and maintenance required to implement a successful buddy programme will depend on the individual student and their specific needs. When student independence and confidence to follow secondary school routines increases, the buddy system may be adapted to promote the development of further independence. For example, a student may only have a buddy for the first two periods and be able to manage transitions independently for the rest of the day.

It is important to consider the compatibility of the potential buddy and the student who may require extra support to increase the chances of a successful partnership. It is also important to have a back-up plan in place, just in case a buddy is away. These things can and should be discussed with all of the students involved so that everyone understands the purpose of the buddy system. Regular discussions or reviews can also provide the student with autism with opportunities to practise talking about what they may need, what is working well, or what may not be working for them yet.

## Timetables and routines

There are significant differences between daily routines at primary or intermediate schools and secondary schools. In the typical primary or intermediate school, there is a greater level of predictability with majority of teaching and learning taking place in one class with one teacher. At secondary school, students have to adapt to regular changes in routine. These changes include having multiple teachers in multiple classrooms across the school, shifting timetables where they may have some teachers and some subjects one day but not the next, rotating classes (for example, Maths first period Monday but last period on a Wednesday), and timetables that may be rearranged to suit subject rotations.

### Timetable coding

Typical timetables can be difficult for some students with autism to interpret as the information is generally presented in plain text. Colour coding and simplification, as shown in the example below, can be used to support a student to process the information presented on their timetable successfully, as visual receptiveness is a common strength of students with autism.

IMAGE 3 An example of a standard secondary school timetable

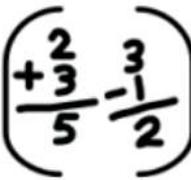
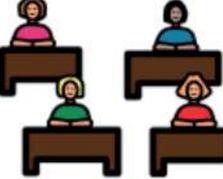
	MON	TUES	WED	THURS	FRI
P1	8:40 am <b>9TMH</b> Tech GR - T1	8:40 am <b>9MAT</b> Mat GP - C1	8:40 am <b>9SPS</b> Sports Science WN - S5	8:40 am <b>9SOS</b> Social Studies ML - S6	8:40 am <b>9ENG</b> English WS - B7
P2	9:40 am <b>9MAT</b> Mat GP - C1	9:40 am <b>9SCI</b> Sci RK - 37	9:40 am <b>9SCI</b> Sci RK - 37	9:40 am <b>9ENG</b> English WS - B7	9:40 am <b>9SCI</b> Sci RK - 37
TUT	10:40 am <b>TUT</b> BM - C2	10:40 am <b>TUT</b> BM - C2	10:40 am <b>TUT</b> BM - C2	10:40 am <b>TUT</b> BM - C2	10:40 am <b>TUT</b> BM - C2
INT	11:00 am	11:00 am	11:00 am	11:00 am	11:00 am
P3	11:25 am <b>9PED</b> Physical Ed PW - GYM	11:25 am <b>9ENG</b> English WS - B7	11:25 am <b>9PED</b> Physical Ed PW - GYM	11:25 am <b>9TMH</b> Tech GR - T1	11:25 am <b>9HED</b> Health Ed BT - B4
P4	12:25 pm <b>9SOS</b> Social Studies ML - S6	12:25 pm <b>9TMH</b> Tech GR - T1	12:25 pm <b>9SOS</b> Social Studies ML - S6	12:25 pm <b>9MAT</b> Mat GP - C1	12:25 pm <b>9SPS</b> Sports Science WN - S5
LUN	1:25 pm	1:25 pm	1:25 pm	1:25 pm	1:25 pm
P5	2:10 pm <b>9SPS</b> Sports Science WN - S5	2:10 pm <b>9SOS</b> Social Studies ML - S6	2:10 pm <b>9ENG</b> English WS - B7	2:10 pm <b>9SCI</b> Sci RK - 37	2:10 pm <b>9MAT</b> Mat GP - C1
FIN	3:10 pm	3:10 pm	3:10 pm	3:10 pm	3:10 pm

IMAGE 4 An example of an adapted timetable

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:40 am	<b>Hard Technology</b> Block T Room 1	<b>Maths</b> Block C Room 1	<b>Sports Science</b> Block S Room 5	<b>Social Studies</b> Block S Room 6	<b>English</b> Block B Room 7
9:40 am	<b>Maths</b> Block C Room 1	<b>Science</b> Science Block Room 37	<b>Science</b> Science Block Room 37	<b>English</b> Block B Room 7	<b>Science</b> Science Block Room 37
10:40 am	<b>Tutor Group</b> Block C Room 2				
11:00 am	<b>Interval</b>				
11:25 am	<b>Physical Education</b> GYM	<b>English</b> Block B Room 7	<b>Physical Education</b> GYM	<b>Hard Technology</b> Block T Room 1	<b>Health</b> Block B Room 4
12:25 pm	<b>Social Studies</b> Block S Room 6	<b>Hard Technology</b> Block T Room 1	<b>Social Studies</b> Block S Room 6	<b>Maths</b> Block C Room 1	<b>Sports Science</b> Block S Room 5
1:25 pm	<b>Lunch</b>				
2:10 pm	<b>Sports Science</b> Block S Room 5	<b>Social Studies</b> Block S Room 6	<b>English</b> Block B Room 7	<b>Science</b> Science Block Room 37	<b>Maths</b> Block C Room 1
3:10 pm	<b>Home</b>				

Coding timetables by colour, text, or size may be suitable for some students, while others may need picture or symbol references, such as pictures of teachers and a map of the school highlighting specific areas of importance, or daily checklists to process what comes next in their day.

**IMAGE 5** An example of a checklist timetable

<b>Monday</b>		
<b>8:40 am</b>	 Hard Tech	
<b>9:40 am</b>	 Maths	
<b>10:40 am</b>	 Tutor	
<b>11:00 am</b>	 Interval	

The best way to present or structure timetable information needs to be based on the specific needs of the student and their individual comprehension abilities.

### The structure of teaching and learning

The structure of teaching and learning in secondary school differs greatly from primary or intermediate school and demands a greater level of independence and time management, increasingly complex academic work to process and interpret, and also a greater emphasis on assessment.

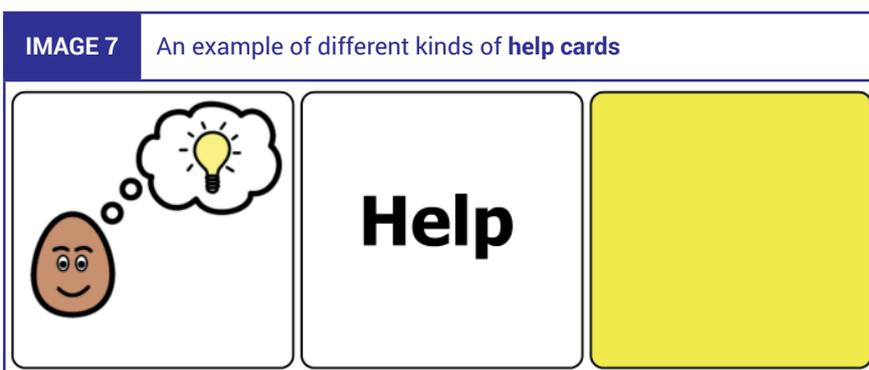
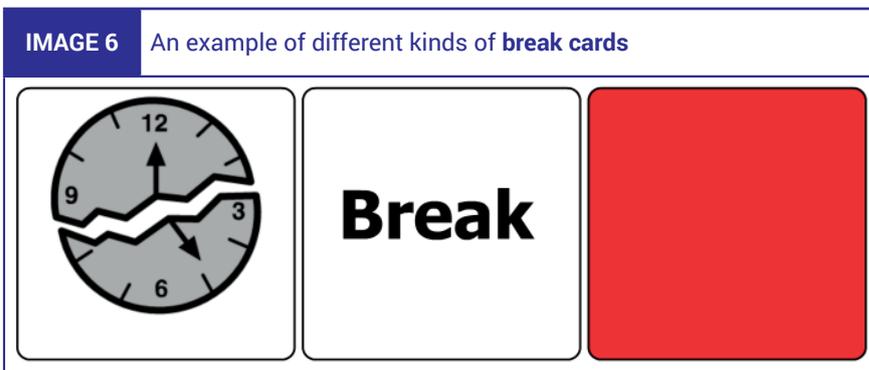
### Workload and curriculum

The secondary school workload often requires students to manage multiple due dates for assignment work across multiple subjects, an increased pace of work, and a higher level of thinking. Some students may struggle with these changes and therefore require a less rigorous and differentiated learning programme while others may be able to cope if given the appropriate support<sup>2</sup>.

### Break and help cards

A break card is quite literally a card that a student can use when he/she feels that they need a break from the current environment or learning activity. It is important to monitor the use of a break card to ensure that it is being used for the right reasons, such as having a few minutes of fresh air to calm anxiety, and not to avoid a learning task.

A help card can be used for students who have difficulty signalling that they need assistance with work or are struggling with a particular part of the intended learning activity. Both of these cards require the student to initiate the communication by either handing the card to the teacher or holding it up. If this is too difficult for the student to manage, the teacher and student may have an arrangement that the student will place the card on the desk in front of them.



As shown in the example above, these cards can look different based on the needs of the student. Each subject teacher would need to know the meaning if discrete colour cards were used, such as red for break and yellow for help.

### Individual education plans

Individual education plans or IEPs are a requirement for students who receive ongoing resourcing scheme (ORS) funding. IEPs are created in collaboration between teachers, the student, their family, and other professionals who may work with that student. These plans may include learning goals and support that cover all curriculum areas, as shown in the example below.

**IMAGE 8** Image 8: An example of a support focused IEP

<b>Individual Education Plan</b>			
<b>Curriculum Area</b>	<b>Personal Learning Support</b>		
<b>English</b>	<ul style="list-style-type: none"> <li>Consider a reader/writer for class assessments.</li> <li>Introduce "Break" cards for when the class environment becomes overwhelming.</li> <li>Provide written examples and sheets to help Sam revise content in his own time.</li> <li>Sam will take photos of the whiteboard at the end of the lesson.</li> </ul>		
<b>Maths</b>	<ul style="list-style-type: none"> <li>Sam would like to be able to bring the class text book home as this is favorite subject.</li> <li>He understands this is against school policy.</li> <li>Sam's parents will purchase a copy for home (teacher to send link).</li> </ul>		
<b>Social Studies</b>	<ul style="list-style-type: none"> <li>Consider a reader/writer for class assessments.</li> <li>Let Sam keep the same desk when seating plan changes.</li> </ul>		
<b>Physical Education</b>	<ul style="list-style-type: none"> <li>Prepare Sam for group sports by telling him in advance.</li> <li>Introduce "Break" cards for when the class environment becomes overwhelming.</li> <li>Teacher will be mindful of the peers he places Sam with for group work.</li> </ul>		
<b>Health</b>	<ul style="list-style-type: none"> <li>Sam will participate in the junior social skills group.</li> </ul>		
<b>Science</b>	<ul style="list-style-type: none"> <li>Allow Sam to wear earmuffs if class becomes too noisy.</li> <li>Sam feels the pace of the class is too fast and he can't keep up.</li> <li>Teacher will create printouts for each lesson to support Sam's learning.</li> </ul>		
<b>Sports Science</b>	<ul style="list-style-type: none"> <li>Consider a reader/writer for class assessments.</li> </ul>		
<b>Hard Technology</b>	<ul style="list-style-type: none"> <li>Sam will work on his toy project at lunch times so that there is less noise.</li> </ul>		
<b>Key Competencies and Communication</b>	<ul style="list-style-type: none"> <li>Create a buddy system and accompanying roster to support Sam's transitions from class to class.</li> <li>Communication cards will be used in class by Sam.</li> </ul>		
<table border="1"> <tr> <td> <p><b>Therapy Support</b></p> <p><u>Occupational Therapy</u> OT will consult with SENCO to support Physical education and health goals.</p> </td> <td> <p><u>Speech Language Therapy -</u> SLT will liaise with family, audiology services and MOE to apply for a microphone and recording system for teachers to wear</p> </td> </tr> </table>		<p><b>Therapy Support</b></p> <p><u>Occupational Therapy</u> OT will consult with SENCO to support Physical education and health goals.</p>	<p><u>Speech Language Therapy -</u> SLT will liaise with family, audiology services and MOE to apply for a microphone and recording system for teachers to wear</p>
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Although IEPs are not a requirement for students who do not receive ORS funding, they can be a helpful way to set individual learning goals and/or support so that a student is able to access the curriculum at a level that is suitable for their specific cognitive abilities.

### Assessment

As qualifications such as the national certificate of educational achievement (NCEA) are offered in senior secondary school (years 11 to 13), assessment has a large bearing on how teaching and learning is structured. NZQA has specific guidelines<sup>3</sup> for special assessment conditions (SAC) which cover additional time and environmental needs, reader/writer assistance, and the use of technology. These conditions apply to students for internal and external assessments, although schools must make an application, with supporting evidence, to NZQA for a student to be granted SAC.

In the year levels preceding assessment for qualifications like NCEA or Cambridge, schools are able to decide assessment conditions for students. It is important to consider being consistent with SAC to best prepare students for assessment conditions they may encounter in assessments for qualifications.

### Structured teaching approaches

Research suggests that the physical environment and the use of visual supports are the two key elements that need to be considered by teachers when thinking about how best to support students with autism. This is because clarity and predictability can support students with autism to understand the way the learning environment works, and what they need to do when they are in that environment.

#### The physical environment

When considering the physical environment, some teachers and some subject areas will have more autonomy over how their teaching environments are organised. For example, an English classroom with desks or tables chairs can be rearranged in ways that a hard materials classroom with workbenches and heavy machinery cannot. In the secondary school environment, there are some standard considerations that can be made, such as clearly labelling specialist equipment so that students know where resources are kept, having set seating plans to provide the student with stability knowing 'their desk' will always be available, and removing clutter or unnecessary furniture so that the student doesn't feel overcrowded. Some students may prefer not to sit in areas where there is high foot traffic, such as near the door with people coming in and out during the lesson, or by a large window if another class is playing sports outside. The best way to decide where a student may like to sit, and even who they may or may not like to sit with, is by asking them directly.

#### Visual supports

The break and help communication cards and colour coded timetable shown earlier in this resource are some examples of visual supports. Another way that visual supports can be implemented into the secondary school environment is through the structuring of learning activities. For example, a teacher that usually gives instructions for work verbally may create a printed resource that breaks the work task down into a step by step process. The instructions may be given to the student in printed form one step at a time or all at once depending on the student's ability to process information. Colour coding and obvious differences in text size may also be used to give the written information a clear hierarchy. If necessary, images and/or symbols may also be used to give the student prompts for interpreting text-based instructions.

### Social and emotional skills

It is common for students with autism to struggle with aspects of social interaction such as forming and maintaining friendships, reading social situations and knowing the appropriate responses, and fundamental communication tools such as recognising what messages another's body language and tone of voice may be portraying. For these reasons, some students with autism may struggle to navigate social situations, understand social boundaries and interpret sarcasm, and may misread subtle nuances in social interactions<sup>4</sup>.

These social difficulties can make students with autism vulnerable and easily misunderstood by their neurotypical peers. Therefore, it is important to ensure that teachers, professionals, and other students are educated about autism spectrum disorders and individual students' specific social and emotional needs. This should be done in a gentle manner with the aim of developing a network of support that does not exclude or alienate the student with autism.

#### Social skills groups

In a school where there are multiple students with autism who may be experiencing social difficulties, a social skills group may be set up to support and educate those students. Social skills groups involve bringing students together in a safe environment where they can discuss and develop skills that reflect appropriate social behaviour. Social skills groups can be flexible or highly structured, depending on the

students involved. In a structured group, there may be a specific focus for each meeting which could include things like making choices, managing emotions, understanding the emotions of others, or appropriate classroom behaviour. These groups don't have to be exclusively for students with autism, and may also include other students who have a similar level of social ability and may benefit from participating in a social skills group.

### Social stories

Social stories are one strategy that can be used to support students with autism to better understand social situations<sup>5</sup>. Social stories model appropriate behaviour and responses for social situations. Research suggests that three types of sentences should be used in social stories: **descriptive sentences** that state what, where, and why, **directive sentences** that frame the desired response, and **perspective sentences** that describe the emotions and responses of others associated with the social situation. These sentences are shown in the example below.

IMAGE 9 An example of a plain text social story

## School Swimming Sports

School swimming sports day is this Thursday.

I will go to tutor group first period.

During tutor group, I will let my teacher know what races I want to enter.

Our class will walk to the school swimming pool at 9:40 am.

During the swimming races people will cheer in excitement for each other.

If it is too noisy I can put my earmuffs on.

I can support other students by cheering for them and congratulating them after races.

Supporting others is good sportsmanship and will make them feel good.

IMAGE 10 An example of a social story with symbols

## School Swimming Sports



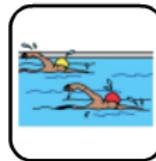
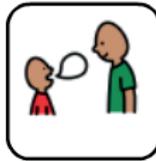
is



School swimming sports day is this Thursday.



I will go to tutor group first period.



During tutor group, I will let my teacher know what races I want to enter.



9:40 am

Our class will walk to the school swimming pool together at 9:40 am.

For secondary school aged students, it is not always necessary to illustrate the social story with symbols, however this should be decided based on an individual student's ability to process ideas conveyed in written text.

This resource provides strategies and information for working with students with autism in secondary school settings. The strategies and information discussed in this resource are intended to provide a starting point for teachers and highlight important things to consider when working with students with autism. All students with autism have individual learning needs, which means that strategies will need to be adapted to suit the needs of each target student.

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## Endnotes

1 Plimley, L., & Bowen, M. (2006). Autistic spectrum disorders in the secondary school. London: Paul Chapman Publishing.

2 Costley, D. (2012). A practical guide for teachers of students with an autism spectrum disorder in secondary education. London, England: Jessica Kingsley Publishers.

3 New Zealand Qualifications Authority. (n.d.) SAC Guidelines for Schools. Retrieved November 12, 2019, from <https://www.nzqa.govt.nz/providers-partners/assessment-and-moderation-of-standards/managing-national-assessment-in-schools/special-assessment-conditions/guidelines-for-schools/who-is-eligible/>

4 Blome, L., & Zelle, M. (2018). Practical strategies for supporting emotional regulation in students with autism: Enhancing engagement and learning in the classroom. London, England: Jessica Kingsley Publishers.

5 Gray, C., & Garand, J. (1993). Social stories: Improving responses of students with autism with accurate social information. Focus on Autistic Behavior, 8(1), 1-10.

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Julie is a special education teacher currently completing a PhD at the University of Auckland. She is exploring ideas about inclusion and inclusive pedagogies from special school perspectives. Julie specialises in working with students with autism spectrum disorder and wants to help make research in this area more accessible to a greater number of teachers.