Down Syndrome
Association of Qld

Down syndrome

Visual Supports Guide

Communication and Behaviour

Communication can be defined as a two way interaction between two or more people. We communicate to share ideas, information, feelings and opinions using a wide range of skills including:

Nonverbal communication
eye contact, gesture, body language and posture

Visual communication
sharing of ideas and information through the use of visuals such as drawings, symbols, signs and photographs

Oral communication
spoken verbal communication

Communication as a whole is generally thought to be a strength of people with Down syndrome. One of the more common characteristics associated with Down syndrome is difficulty with oral communication. There is no definitive reason for this difficulty, however a number of possible causes have been suggested, including:

Learning difficulties
a person with Down syndrome may need to hear a word more times than their peers to be able to learn it.

Anatomical differences
including characteristics such as a smaller mouth and larger tongue, lack of jaw strength, or low tone.

Hearing loss
can affect the development of expressive and receptive communication skills in areas such as vocabulary building, sentence structure and clarity of speech sounds.

Verbal short term memory difficulties
research has shown that people with Down syndrome have poorer verbal short-term memory spans than the general population. This can make processing verbal information and, in turn, learning from listening, especially difficult.

Speech motor difficulties
involves motor coordination or motor planning. A person with speech motor difficulties has difficulty moving the muscles and structures necessary to form speech sounds into words.

Research shows that people with Down syndrome usually have better receptive language than expressive language. This is an important finding as it suggests that we must separate understanding from spoken language skills. Research also tells us that people with Down syndrome have significantly better visual short-term memory spans than verbal short-term memory spans. This identifies the use of visuals as a strength that can be used to enable people with Down syndrome to adequately express themselves.

Behaviour can be also considered a form of communication. All behaviours have a function, and understanding the function of a person's behaviour can enable us to better support them.

The function of a behaviour is to either:

To gain something - eg. social attention, access to activities or objects, sensory feedback

To avoid something - eg. anxiety, demands, situations, activities

In the case of challenging or difficult behaviour, the function is generally valid but the form that the behaviour takes is inappropriate for the setting.

Rather than focus on stopping or controlling the challenging behaviour it is best to focus on encouraging desirable behaviour. The goal is to teach people to self manage by replacing an undersirable behaviour with a more appropriate one.

Some examples of valid function and inappropriate form include:

- A person who runs away in order to **avoid** an overwhelming situation.

- A person who throws their food on the floor in order to **avoid** it's texture due to sensory processing issues.

- A person who pushes other people out of the way in order to **gain** access to an activity.

Visual Supports

A strategy to support the behaviour of people with Down syndrome is the use of visual supports. We know that visual learning is a strength of people with Down syndrome so the use of symbols, pictures and photographs to support communication can be very successful.

The use of visual support provides static information that allows longer processing time. It simplifies the message by breaking it down into the core components and can provide a link between verbal and visual information.

The aim of visual supports is not to replace oral communication but rather to support it. This can increase independence and confidence, decrease the frustration of not being understood, and support more appropriate behaviour.

Everybody uses visual supports in some way. On the road is a good place to demonstrate this as signs and visuals are used for a number of things including to tell us the road rules and help us to be safe.

We use visual supports everyday in our daily lives

*Some examples of everyday visual supports*

Other Uses for Symbols

The key when using visual supports is **creativity**.

For a child that has difficulty engaging in reading - can you use symbols to make the experience more interactive? Why not try preparing symbols that can be matched to elements of the story.

Example:
Add images to The Very Hungry Caterpillar to allow the student to fully engage in the story.

For a person in a workplace who has difficulty filing in alphabetical order - can you use visuals to make this task easier? Try a simple visual 'alphabet strip' that can be referred to, or try using colours or symbols for filing rather than letter.

Aa	Bb	Cc	Dd	Ee	Ff	Gg	Hh	Ii	Jj	Kk	Ll	Mm
Nn	Oo	Pp	Qq	Rr	Ss	Tt	Uu	Vv	Ww	Xx	Yy	Zz
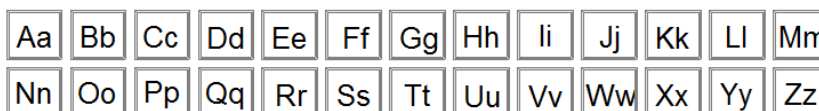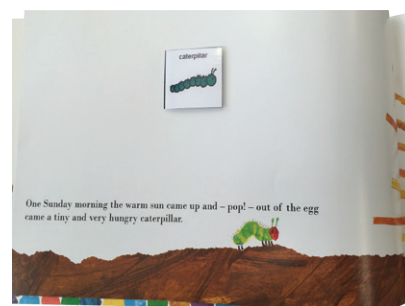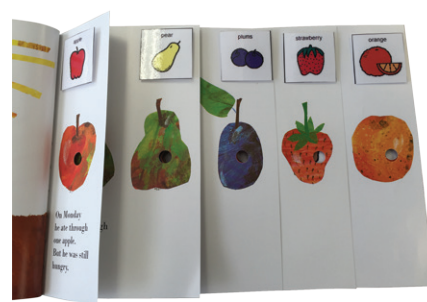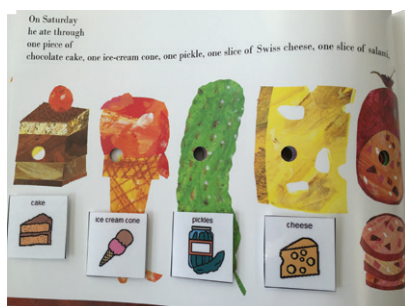
Choice Boards

Choice boards provide a simple, visual method of providing choice. This can support better behaviour by giving people access to preferred activities or items.

Choice boards can be used in many ways. Choices could be offered for foods, activities, locations and more.

For some people it is best to only offer 2 or 3 choices in order to keep it simple, however others may be able to select from a number of options.

Options should be offered to the person in the form of visuals and a selection can be made. The examples below show laminated symbols with

velcro dots however you could also use photos or objects to represent choices.

Choice boards can be used to make activities more engaging and interactive.
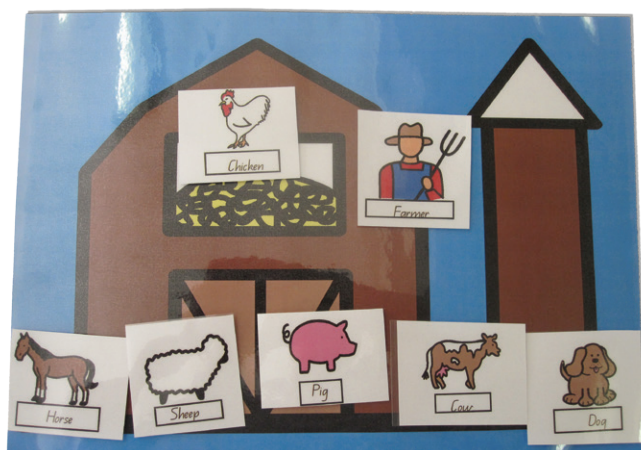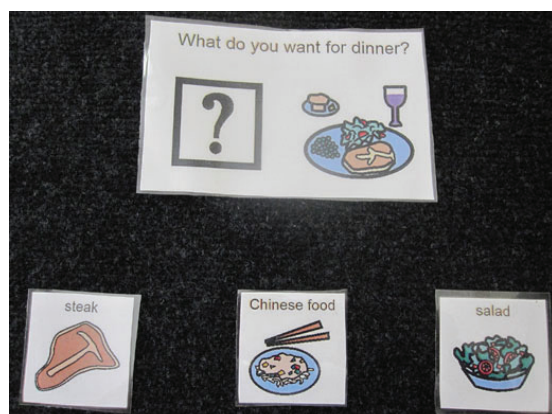
Example:
When singing 'Old Macdonald' the child can select the symbol for the animal they want to sing about next.

Other songs like 'The Wheels on the Bus' can be used the same way.
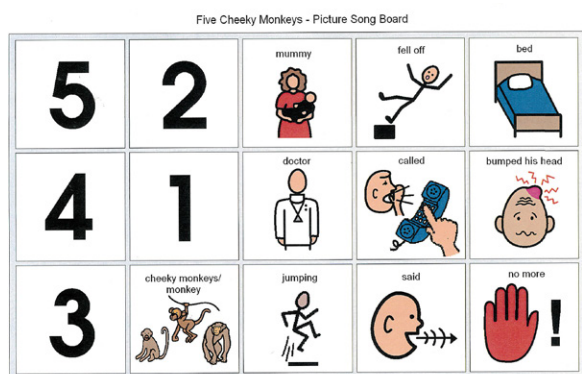
Children can sing along to 5 cheeky monkeys

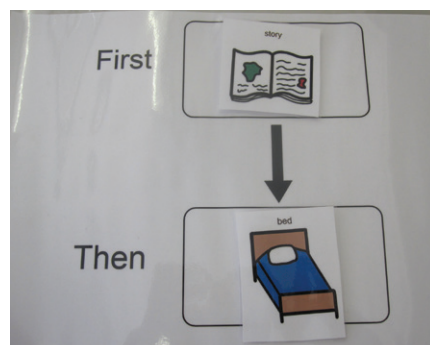
Children choose their favourite song

First / Then

First/then resources can be used in a number of ways. The basic concept is to provide a visual reminder of something that must be done first, and what will follow it.

For routine - an activity or step in an activity that must be completed before moving on to the next
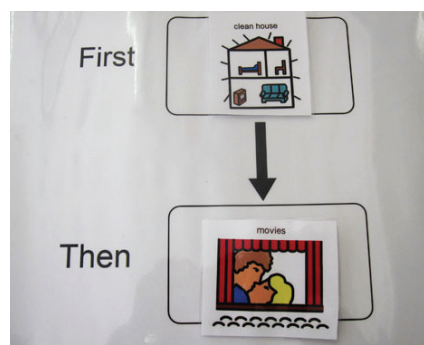
Example:
first we read a story then we go to bed

For activities - new or non-preferred activity followed by preferred activity
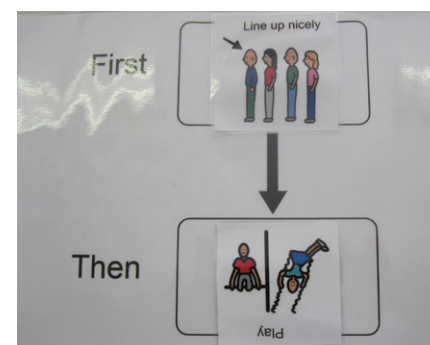
Example:
first we clean the house then we go to the movies

For behaviour - an appropriate behaviour that must be demonstrated before a reinforcer is given

Example:
*first we line up nicely then we go to play*

Reward Charts

Reward charts can be used to effectively support appropriate behaviour. Token economies are an ideal method of targeting a select behaviour. The charts can take many forms, however 3 basic elements need to be considered and displayed:

1. Target behaviour
2. Number of times target behaviour must be demonstrated to 'earn' reward
3. Reward
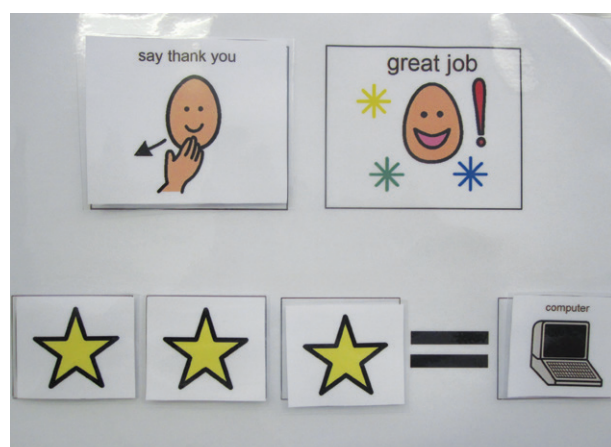
Example:
A simple reward chart targeting the behaviour of saying thankyou. 3 stars are required in order to gain the reward of computer time.

Example:
A reward chart targeting the behaviour of working quietly. 5 tokens are required in order to gain the reward of listening to music.

Visual Schedules

Visual schedules can be a great way to make transition from one activity to another easier. It also gives the person a clear reminder of where they are meant to be, what they are meant to be doing, and what comes next.

Visual schedules can be combined with a 'Finished box' to make it more interactive for the user. This can reinforce the end and beginning of tasks or activities.

Visual schedules can also be used to break down the steps of an activity. This can help with task focus and independence.

Visual schedule planner by good Karma applications.

Example:
A visual schedule showing the daily activities for a childcare setting

Example:
A visual timetable showing the chores required for house cleaning

Example:
A visual schedule that shows the toileting routine

Example:
A visual schedule for the morning routine. As each step of the routine is completed the symbol is removed and placed in the finished box before moving on to the next step.

Visual Schedules

Set a timer to create independance.

Display classroom activities for the day to add structure.

SATURDAY

A

10:45		Court Sports Indoor Court 3
12:15		Lunch
1:15		Canoeing
4:30		Showers & get ready for costume disco
6:30		Dinner
7:30		Costume disco
9:30		Back to dorms
10:00		Bed time

Develop an independant daily schedule.

Subject choices.

Packing for each day.

Visual Supports also support people in the workforce.

Warehouse and printing room checklist

	✓
get trolley	
check paper	
order paper from reception	
go to warehouse	
pick up parcels	
deliver parcels	
fill paper shelves	
fill photocopier	
tidy up	
fill second photocopier	
put trolley back	

Kitchenette 1 checklist

	✓
wipe benches	
water plant Monday and Thursday	
empty dishwasher	
stack dishwasher	

Kitchenette 2 checklist

	✓
wipe benches	
water plant Monday and Thursday	
empty dishwasher	
stack dishwasher	

Visual timers assist people with Down syndrome to keep to schedule.

Dealing With Complex Issues

Dealing with complex social issues can often be quite difficult for someone with Down syndrome. They may not able to express what they are feeling or explain what is going on emotionally. They may also have trouble explaining relationships or not understand how their behaviours can upset people. These communication boards will assist with communication and help the person with Down syndrome better understand what is going on and process their emotions.
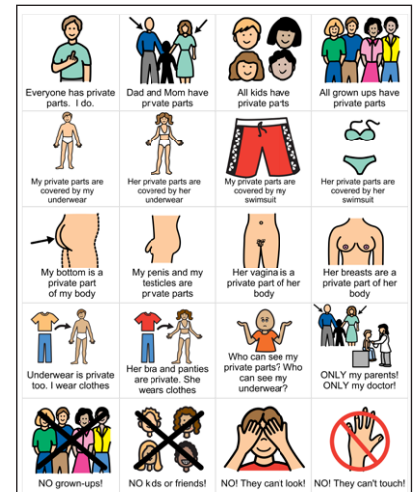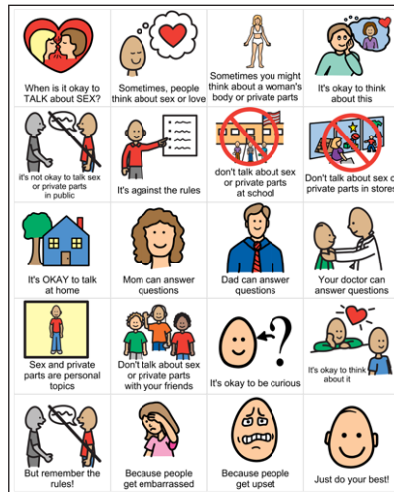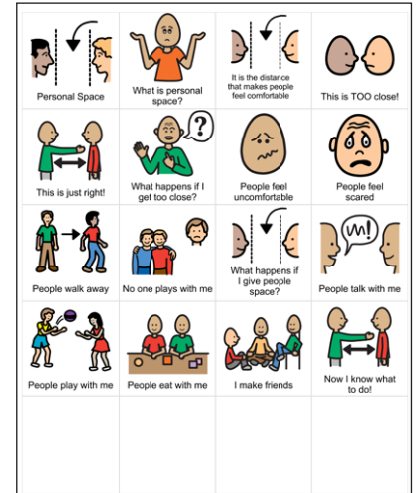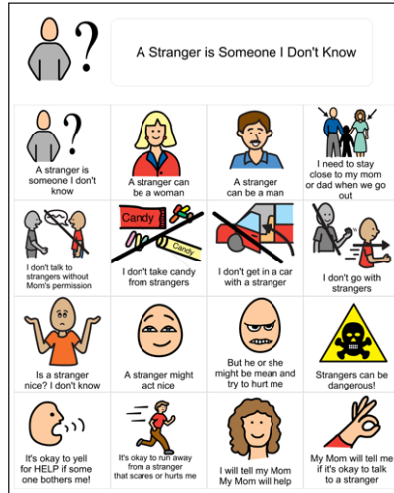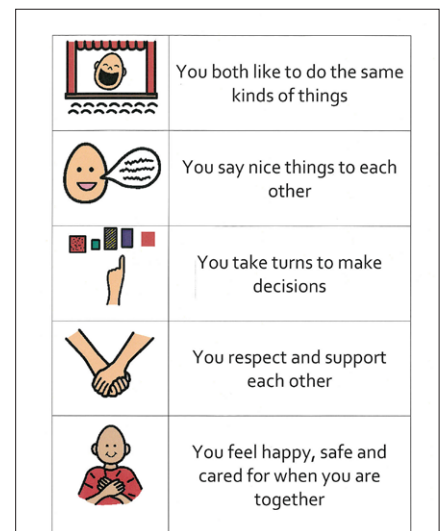

Example:
When unwanted feelings become confusing visual supports can help.
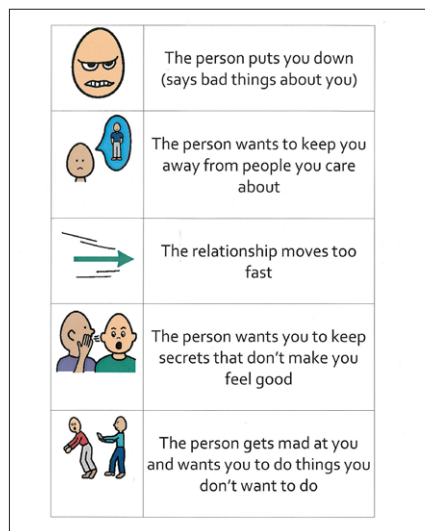
Example:
Talking through relationship issues.

Social Stories

(Carol Gray, Jenison Public Schools, 1994)

Social stories were developed to describe social situations and relevant social cues to children with autism, and to define appropriate social responses. The principles can be just as effective for teaching routines to people with Down syndrome. Photos can be used as visual cues but the story must be written so that it is consistent.

Target a situation that is difficult for the person with Down syndrome.

Observe the situation and try to see it from the person's perspective.

Determine what may be motivating the person's current response - it is this that will be the focus of the social story.

The social story is comprised of 3 types of sentences.

Descriptive sentences - defining where the situation occurs, who is involved, what they are doing and why.

Directive sentences - an individualised statement of the desired response, telling the person what is expected. They often begin with 'I will....' or 'I can.....'.

Perspective sentences - describe the reactions and feelings of others.

A good forumla to follow for most stories is to write 2 to 5 descriptive and perspective sentences for every directive sentence in a story.
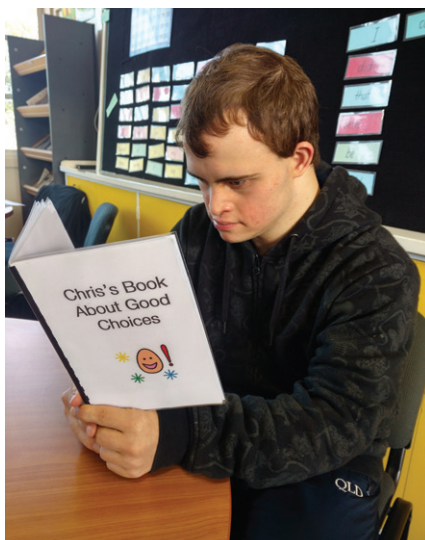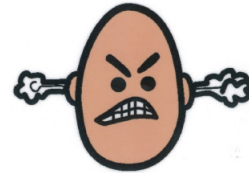
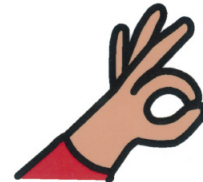*A social story about feeling upset or angry.*

1 My name is Jane.

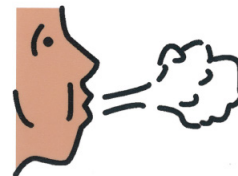2 Sometimes I feel angry.

3 Sometimes I feel upset.

4 It is ok to feel angry or upset. Everybody feels angry or upset sometimes
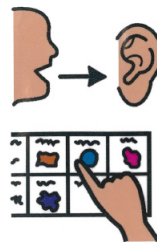
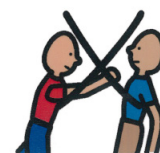5 When I am angry or upset I should make good choices.

6 Taking deep breaths is a good choice.

7 Telling somebody is a good choice. I can use words or symbols.

8 Being safe is a good choice This means keeping my hands and feet to myself.

9 When I make good choices my Mum feels happy.

10 I feel proud when I make good choices.
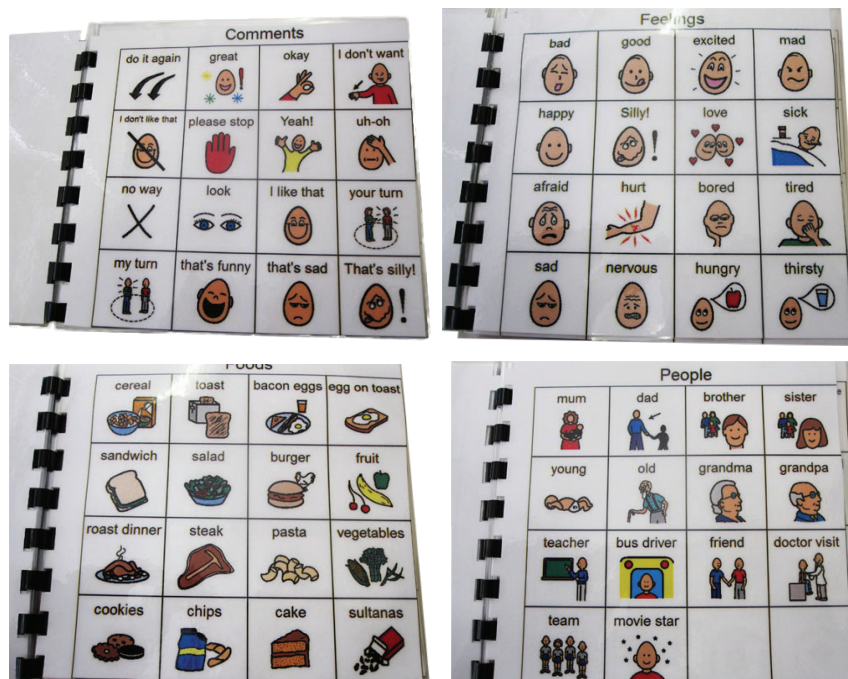
Communication Books

Communication books and boards have the benefit of being fully customisable. They can take whichever format works best for the person and/or situation and can include as much or little content as needed.

Some people carry small communication books with symbols for important things, people, places or concepts. They are usually separated into specific categories for ease of use. Suggested contents include:

- People with photos to represent important people in the user's life
- Food and drinks to represent commonly chosen items
- Places to represent places that are regularly accessed
- Body parts, social language, movies, music, recreation and more.
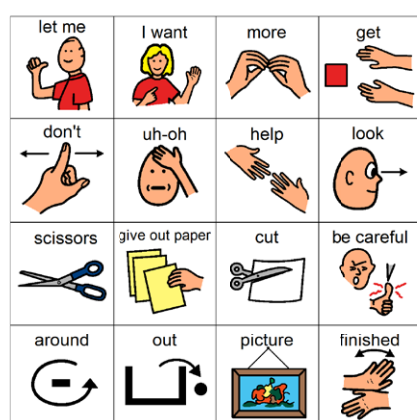
Example:
Pages from a sample communication book.

Communication Boards

Communication boards, like the books, are inexpensive and easy to make and use. They are usually made for use with a particular activity. The benefit of this is that they can be stored with the relevant equipment and do not need to be added permanently to a communication book that may become bulky with too many categories.
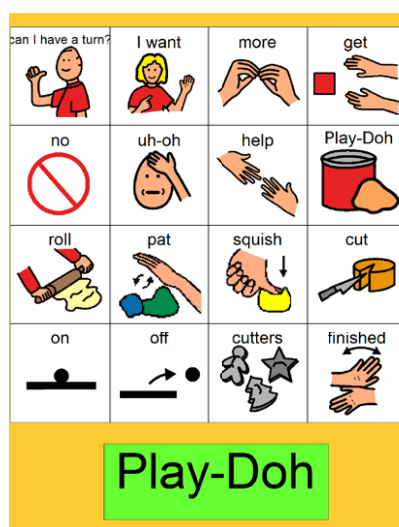
The user should be encouraged to use verbal communication, where possible, while pointing to symbols to support message clarity. This can be modelled to the individual by the person engaging in the activity with them.

Example:
A 'cutting' communication board

Example:
'A 'Play-doh' communication board

Example: *A 'setting the table' communication board*

Red and Green choices

Using the colours of red and green (as in green for go and red for stop) to signify 'appropriate' and 'inappropriate' behaviour choices.

Use of lanyards

Teachers can use visual supports attached to a lanyard for supporting people with Down syndrome away from a building or classroom. These lanyards provide handy on the spot visual supports anywhere anytime.

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