



What Learning Looks Like for Students With Profound Needs? A Curriculum Journey From Singapore

SEPLA-CON 2023 | 17th July 2023



Introducing Presenters



Today's Content:

- **Special Education: A Singapore's Context**
- **Introducing Cerebral Palsy Alliance Singapore School (CPASS)**
- **Learners in the High Support Programme: Profound Multiple Learning Difficulties**
- **CPASS High Support Curriculum**
- **The Transdisciplinary Approach**
- **Curriculum Resources**





Special Education: A Singapore's Context

Education for Students with Special Needs

Mainstream Schools

Students with special needs who have the cognitive skills to access the national curriculum and mainstream learning environment.

Special Schools

Students with moderate to severe special educational needs who require intensive, specialised support and curriculum customisation.

- Autism Spectrum Disorder (ASD) with no intellectual impairment
- Autism Spectrum Disorder (ASD) with intellectual impairment
- Mild Intellectual Disability (MID)
- Moderate to Severe Intellectual Disability (MSID)
- **Multiple Disabilities (MD)**
- Sensory impairment

(MOE, 2023)

Special Education (SPED) Curriculum Framework



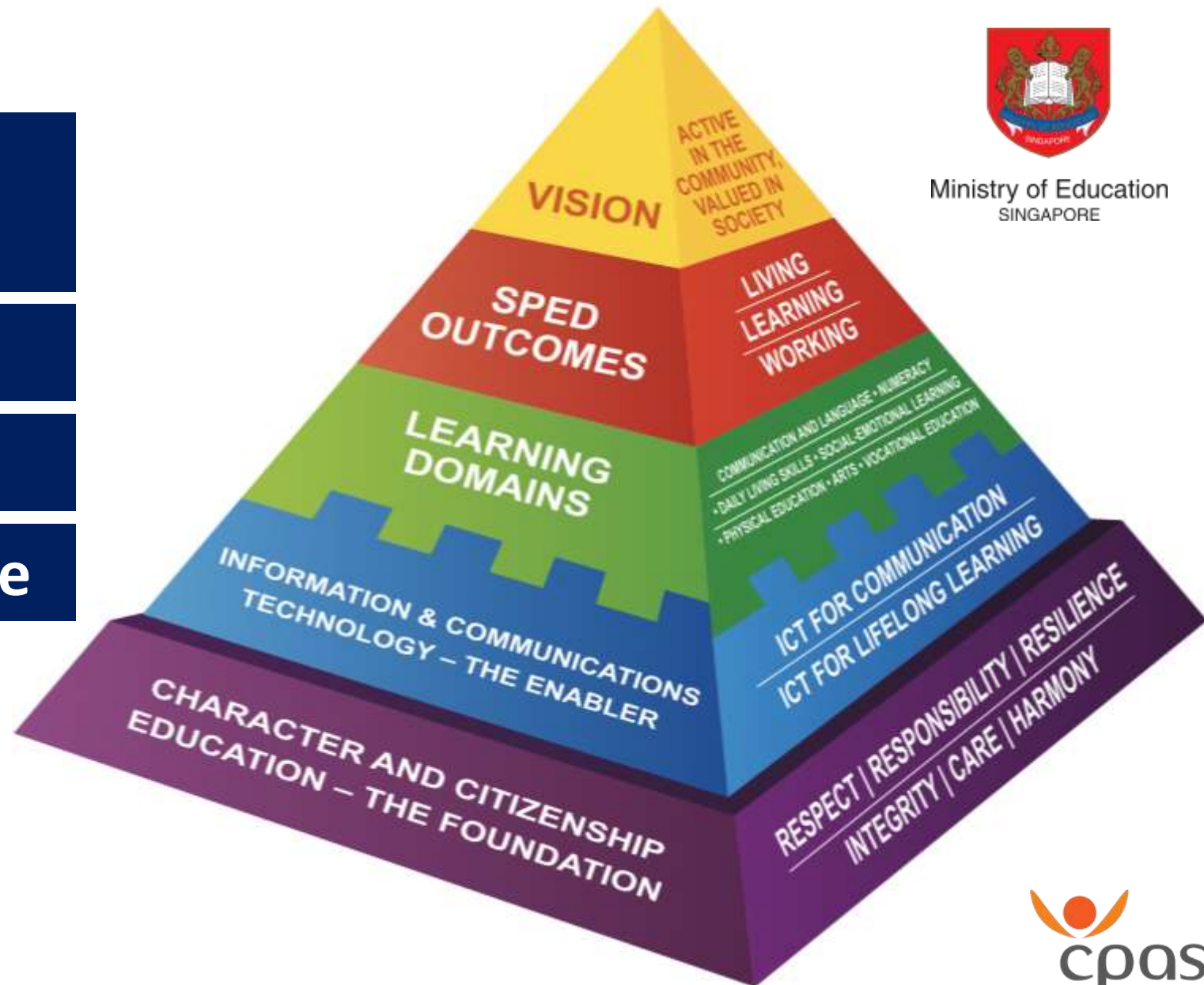
Ministry of Education
SINGAPORE

Co-developed with SPED
Schools

7 Core Learning Domains

Common Direction

Flexible and Customisable



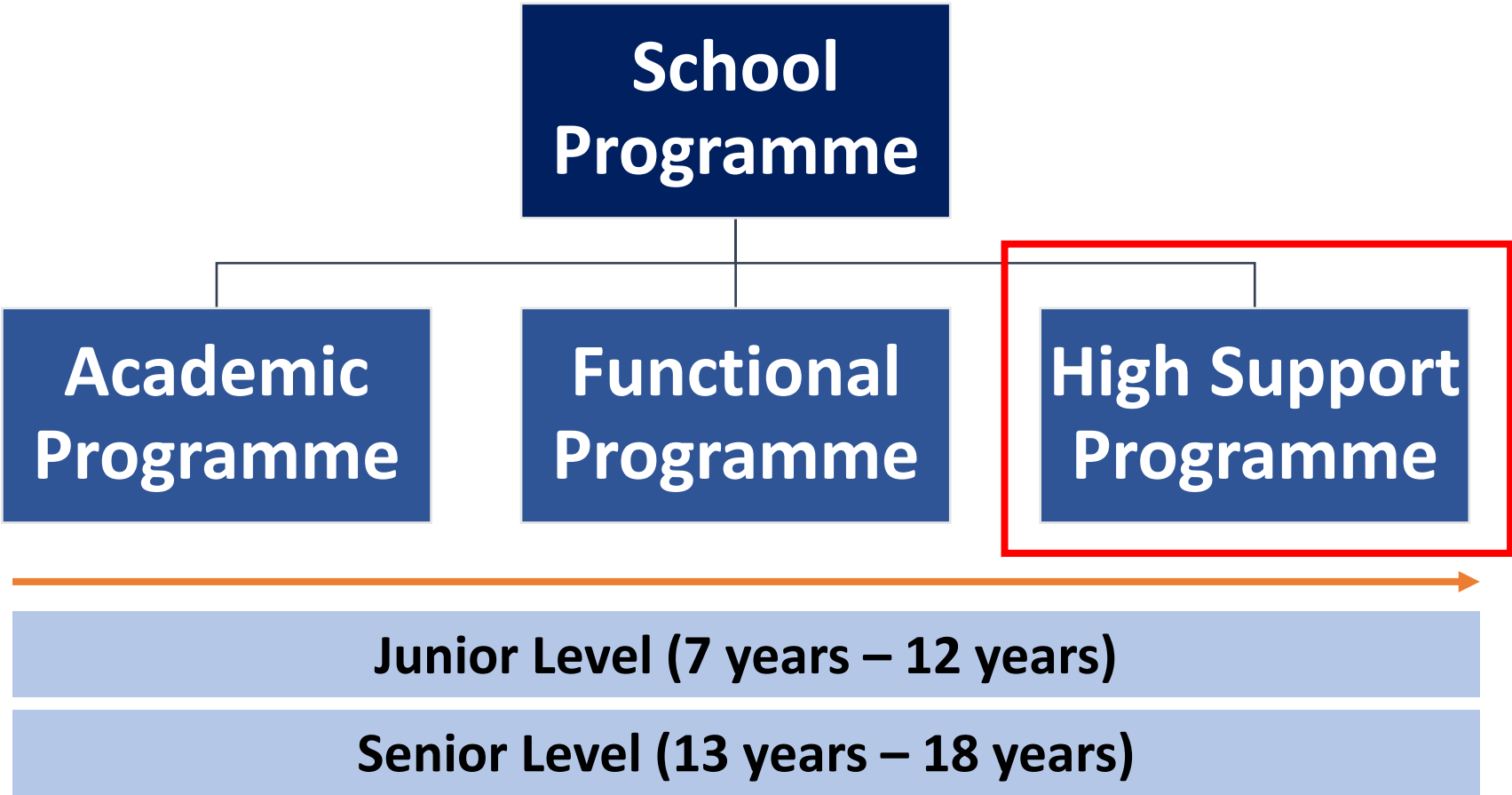


Cerebral Palsy Alliance Singapore School (CPASS)

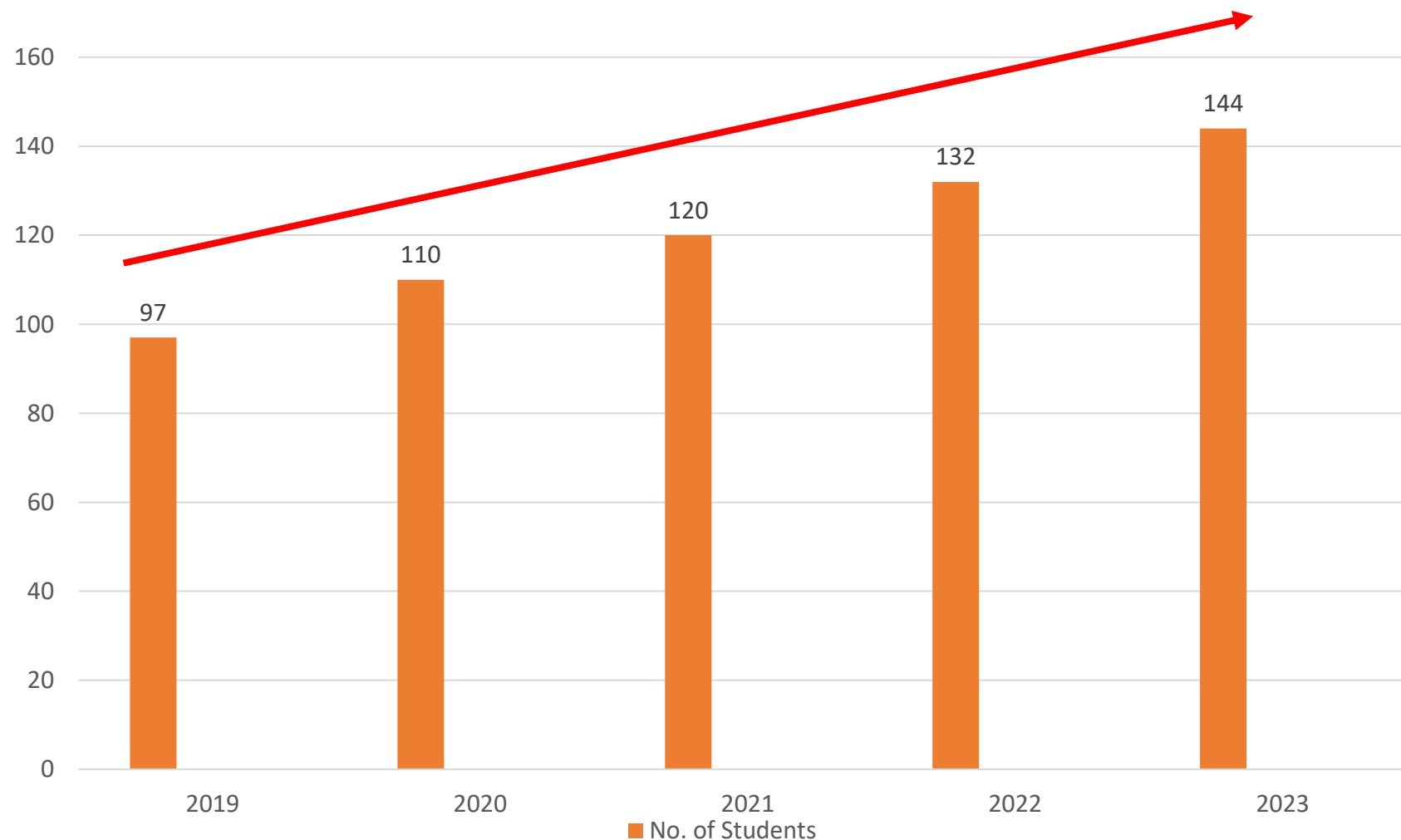
- Special Education School
- 2 Campuses (East & West – as of July 2023)
- **277** students with moderate to severe **multiple disabilities**
 - **245** students (East Campus)
 - **32** students (West Campus)



Cerebral Palsy Alliance Singapore School (CPASS)

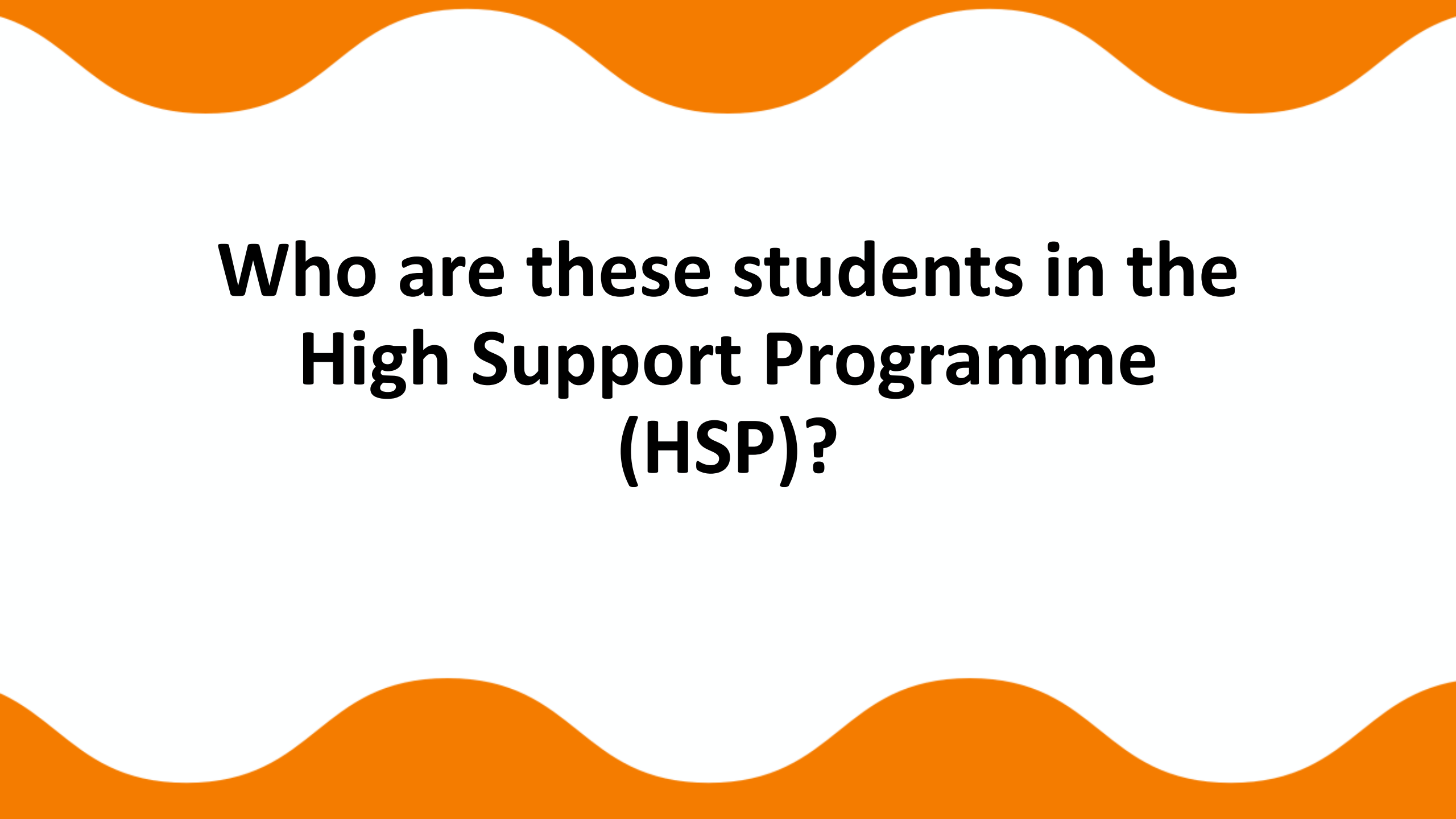


No. of Students in CPASS High Support Programme (from 2019 – 2023)



Potential Attributing Factors:

- Global trend of increasing number of students with profound needs due to medical advances (Carpenter, 1994; Salt, 2010; Peter, 2015)
- Compulsory Education (CE) Act in Singapore was extended to students with moderate to severe needs with effect from 2019 (MOE, 2016)



**Who are these students in the
High Support Programme
(HSP)?**

Case Study

“Sarita is 10 years old. She shows positive responses to lively, bright and noisy TV programmes or activities and to music with a strong beat. She visibly relaxes and smiles when in the company of her parents, other family members, certain members of school staff and some pupils. She shows similar responses when in the soft play area and the hydrotherapy pool. When shown bright lights, Sarita stills and appears to concentrate and will visually track them as they are moved across her field of vision.

She will also still to sounds, smile in response to familiar voices and will participate in simple turn-taking games when an adult repeats her vocalisations. Sarita has a moulded matrix wheelchair in which she spends most of her day. [...] Sarita does not use any recognisable words but makes some consistent vocalisations. She has seizures which are generally well controlled with medication, and she receives her nutrition via a gastrostomy. Sarita relies on others for all aspects of her personal care and safety.”

(Male, 2015, pp.9-10)

Definitions and Characteristics



Singapore:

- No specific term
- Generally classified under the broad umbrella term of students with **'moderate and severe disabilities'**
- Disability category of **'multiple disabilities'**

(Poon et al., 2013; MOE, 2022)



UK:

- **Profound Multiple Learning Difficulties/Disabilities (PMLD)** first coined by Evan and Ware (1987) in the UK
- Learners functioning at the earliest stage of intellectual development
- Have additional (and multiple) physical and sensory impairment

Definition and Characteristics of students with PMLD

Students with PMLD have:

- **Complex** learning needs
- **Severe learning difficulties** (IQ below 20/25)
- May also have other difficulties such as
 - **physical disabilities**
 - **sensory impairment (deaf, blind)**
 - **a severe medical condition**

(DfE, 2011; Mackay, 2009)

Definition and Characteristics of students with PMLD

Students with PMLD:

- Require a **high level of adult support** for both learning and personal care
- Likely to need **sensory stimulation** and **curriculum broken down** into very small steps
- **Communicate by gestures, eye pointing, symbols, or very simple language**

(DfE, 2011)

Videos of students with PMLD in CPASS



Videos of students with PMLD in CPASS



Challenges faced in the High Support Programme

1. Teachers struggled to engage and teach students with profound and complex needs

2. Lack of structure



CPASS HSP Curriculum Journey

Before 2019:

- Teachers given themes to develop their own Scheme of Work
- Teachers create own resources

2020:

- Rolled out the HSP Curriculum to all 19 classes in HSP

2022:

- Reviewed and refined curriculum processes

HSP Curriculum Journey

2019:

- Formation of HSP Curriculum Team
- Development of HSP Curriculum

2021:

- Refined curriculum implementation
- Co-taught with classes
- Conducted dialogue sessions, training and workshops with teachers

2023:

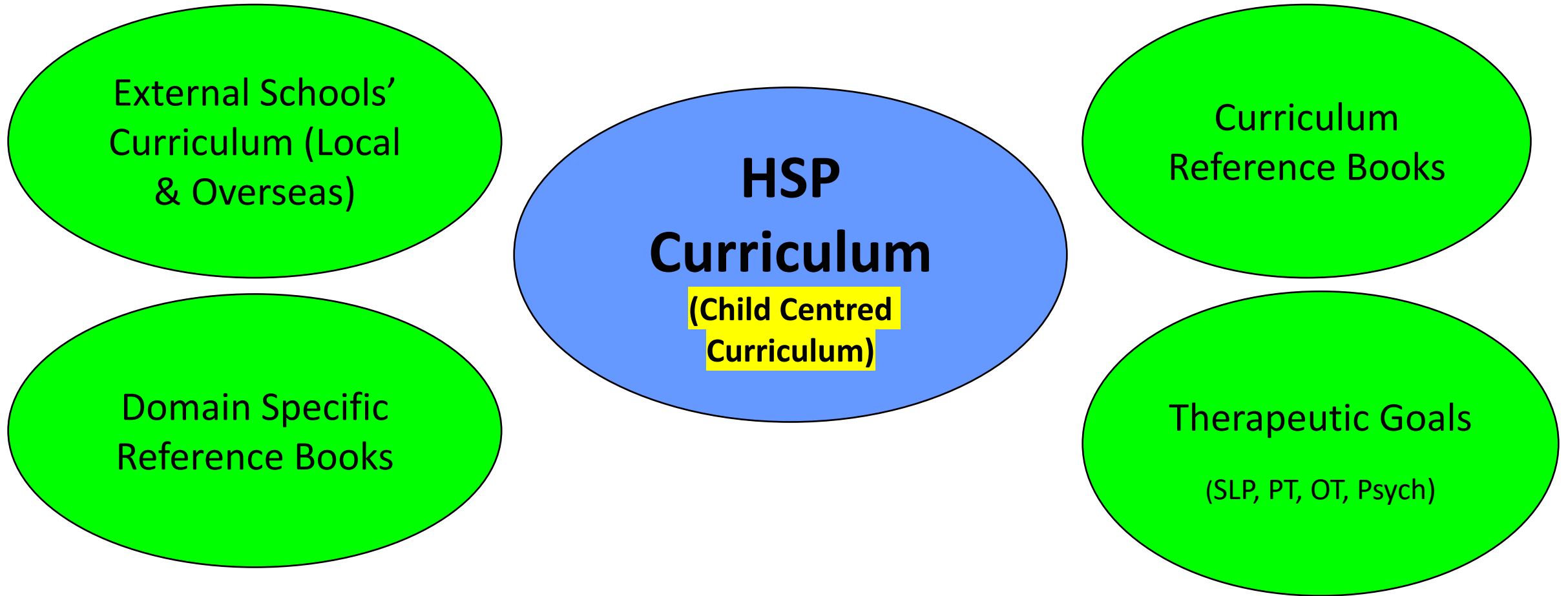
- Continue to review and refine curriculum processes
- Co-teach
- Trial assessment tool – Engagement for Learning

Moving Towards a Child Centred Curriculum

- Students with PMLD have complex needs
- Important to focus on individual learners – what are their abilities and needs?



Designing the Curriculum



HSP Curriculum Vision

Happy Learners

- Students to have fun and enjoy learning.
- Students to lead meaningful and full lives.

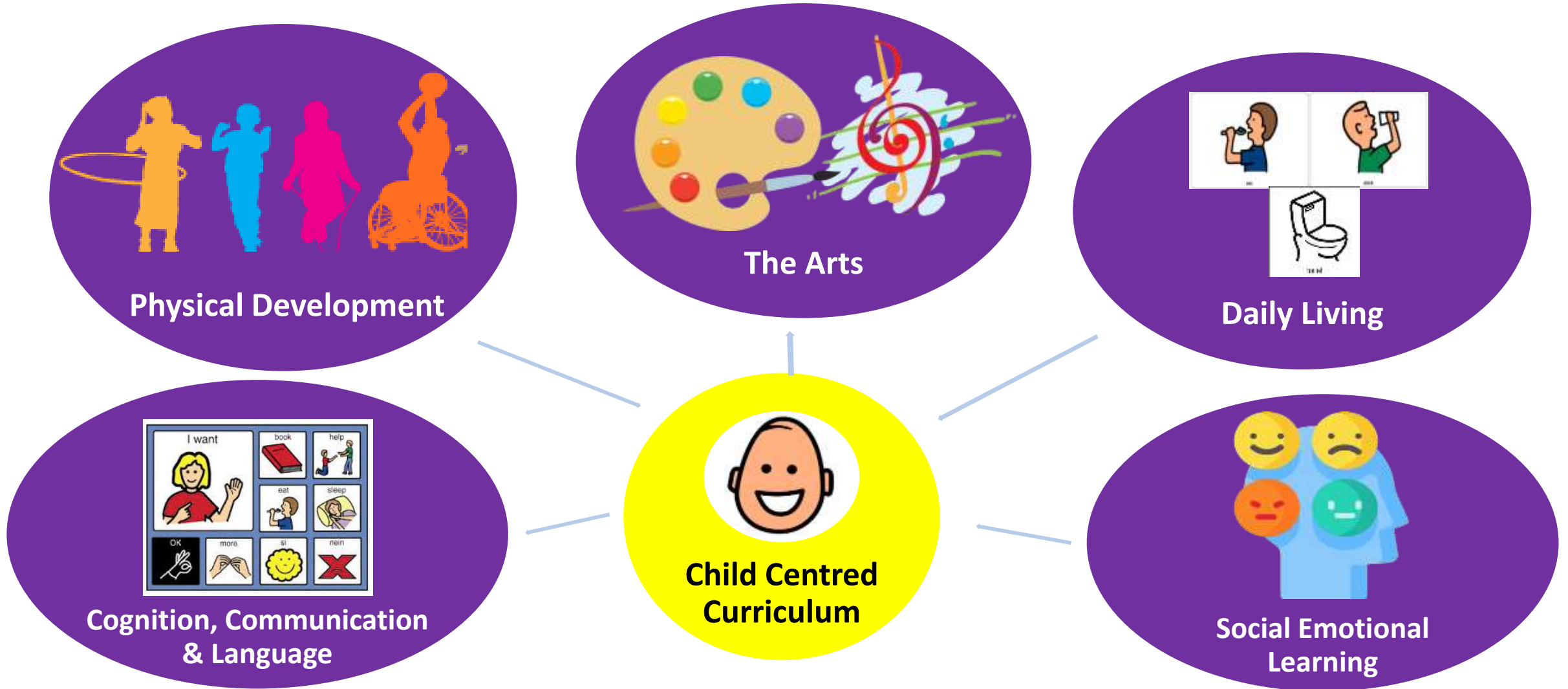
Active Learners

- Students to be engaged during lessons and participate in their own learning.
- Students to have autonomy.

Successful Learners

- Students to make progress and achieve their IEP/ ITP goals.

What is the HSP Curriculum?



Students work on developing different goals across the domains based on their learning needs.

Individual Education Plan(IEP)/Individual Transition Plan (ITP)

Age	Programme	Goals Reflected in	<ul style="list-style-type: none"> Goals for individual student are crafted from the learning domains provided IEP/ITP Goals will be embedded into lesson activities
7 – 12 years old	High Support Junior (HSJ)	Individualized Education Plan (IEP)	
13 – 18 years old	High Support Senior (HSS)	Individualized Transition Plan (ITP)	

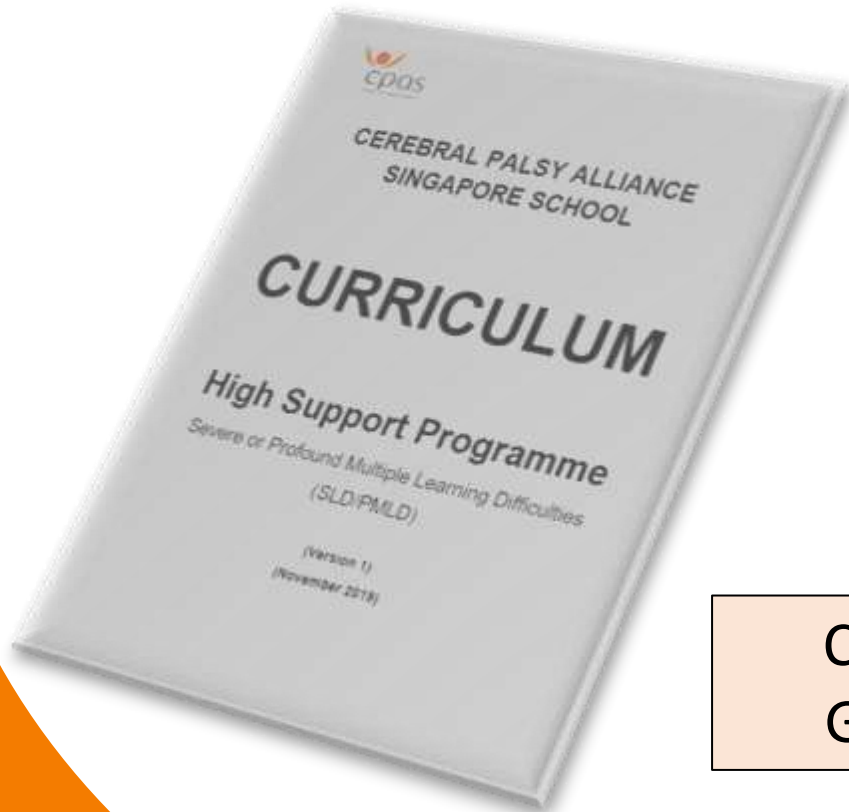
Assessing Learning

- In recognising that learning cannot be guaranteed to be linear or developmental and fluctuates across days and situations for these students (Barber & Goldbart, 1998; Imray & Hinchcliffe, 2012; Ware, 2017; Welsh Government, 2020), **ipsative** assessment is collected **qualitatively**.
- Teachers are to complete daily learning evaluations for individual students based on selected IEP/ITP goals.

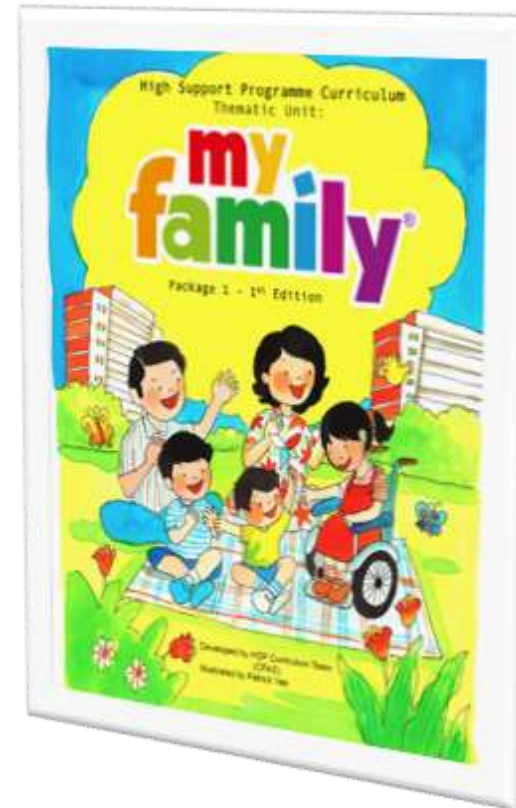
Name of students	Learning Outcomes	Nth Trial	W	Th	Remarks	Students' Feedback
1. ZZZ	(IEP 1.1) ZZZ will communicate choice to attentive adults by giving her preferred choice picture card in school at least 1 out of 2 trials during sensory stimulation/sensory story lesson for 2 consecutive days by Semester 1.	1 st	PP	PP	(State remarks on how the student responded during the lesson.)	Did the student enjoy the lesson?
		2 nd	GE	GE	1. Teacher taps on the picture cards as a gestural prompt. ZZZ took 10 seconds before tearing her preferred card.	Yes. By tearing the Yes card and smiling at the teacher.
	(IEP 2.1) ZZZ will tolerate standing on the standing frame for 15 minutes in school at most once during sensory stimulation/sensory story for 2 consecutive days by Term 2.	1 st	Vi	Vi		

- This data is consolidated in a checkpoint document every Week 5 & 9 of the school term and eventually reflected in the IEP/ITP.

How is HSP Curriculum delivered in class to our student?



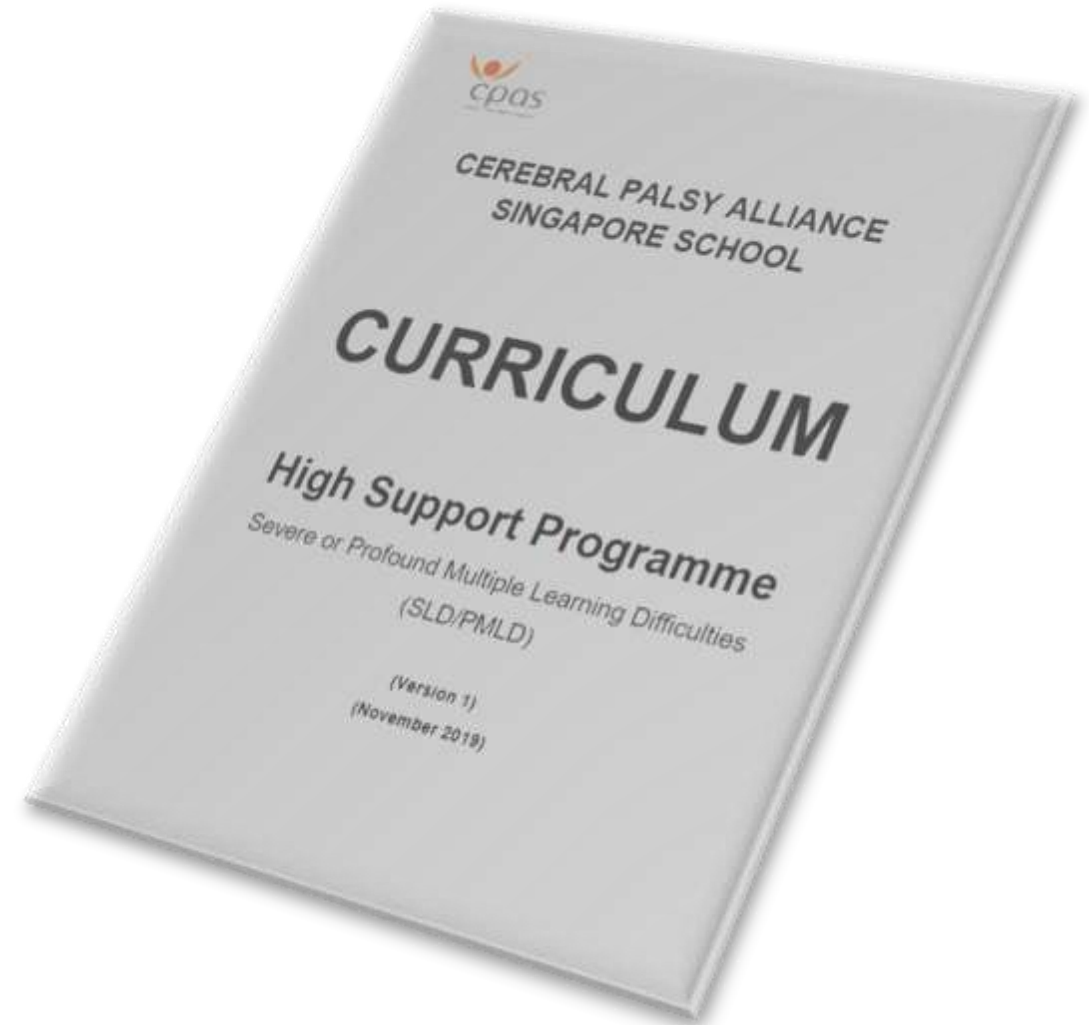
Curriculum
Guidebook



Thematic
Package

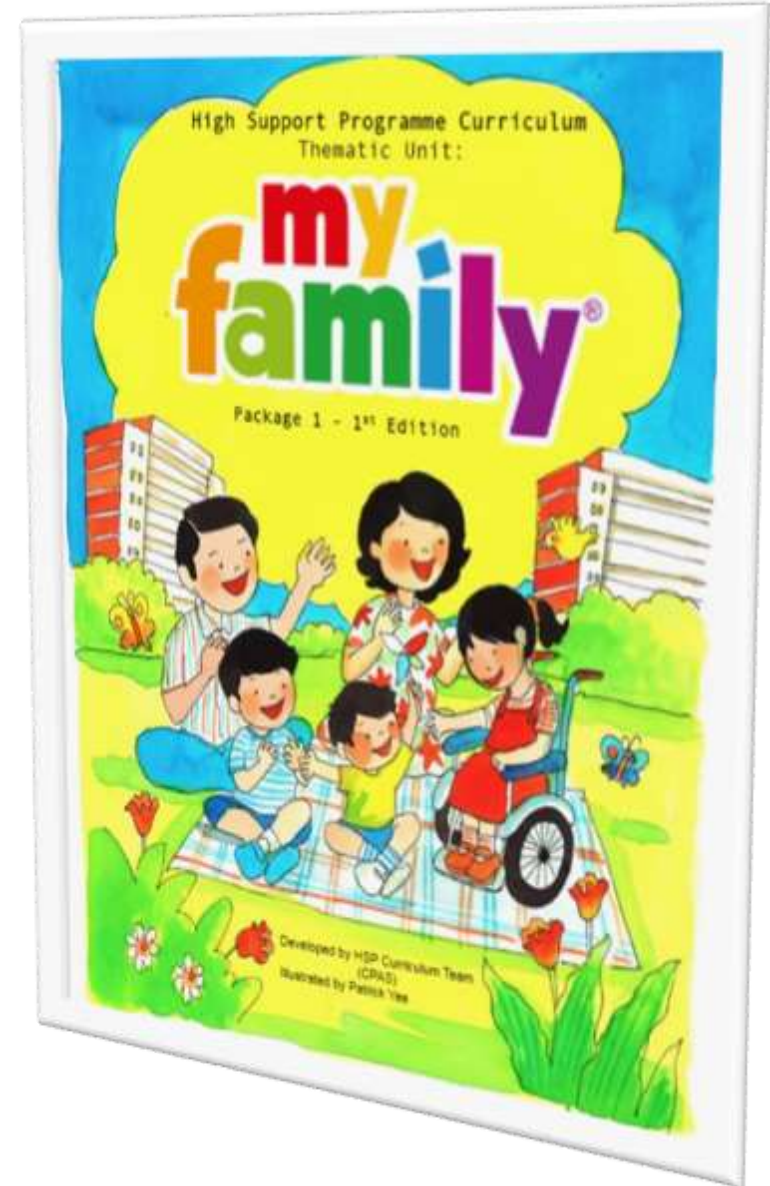
Curriculum Guidebook

- A handbook for teachers in the High Support Programme
- To guide and support teachers in the High Support Programme
- Content includes:
 - ✓ Suggested teaching approaches and strategies
 - ✓ Scope and Sequence (5 Domains)
 - ✓ Assessment Guidelines



Thematic Packages

- Rolled out termly based on specific themes. For example, **The Ocean Kingdom, Our School, Singapore Town, My Family.**
- Provides ideas for lesson activities across different subjects.
- Includes tips on lesson facilitation.
- Provides ideas for adaptation to suit needs of different students.
- Written with feedback and inputs from the Allied Professionals (e.g., SLP, PT, OT, Psych & AT Hub).

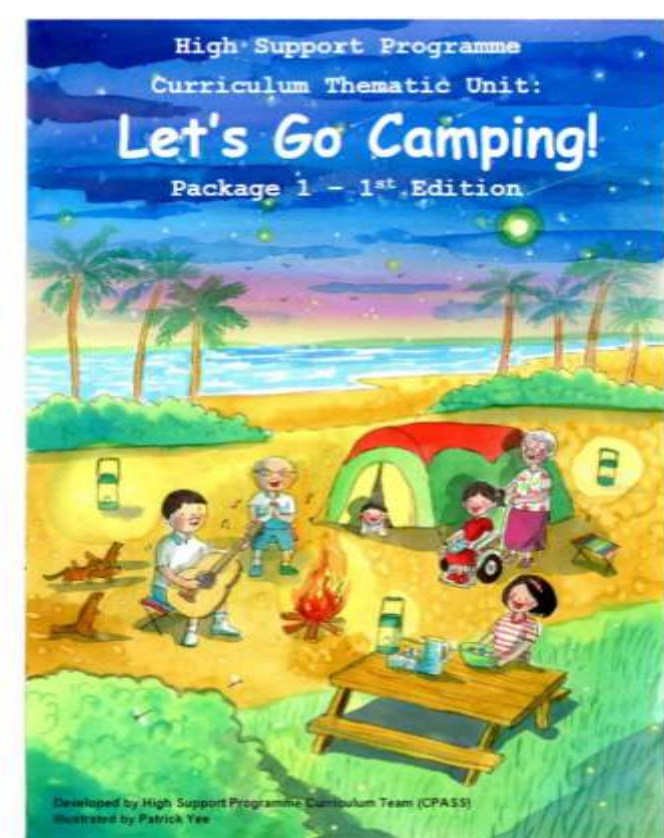
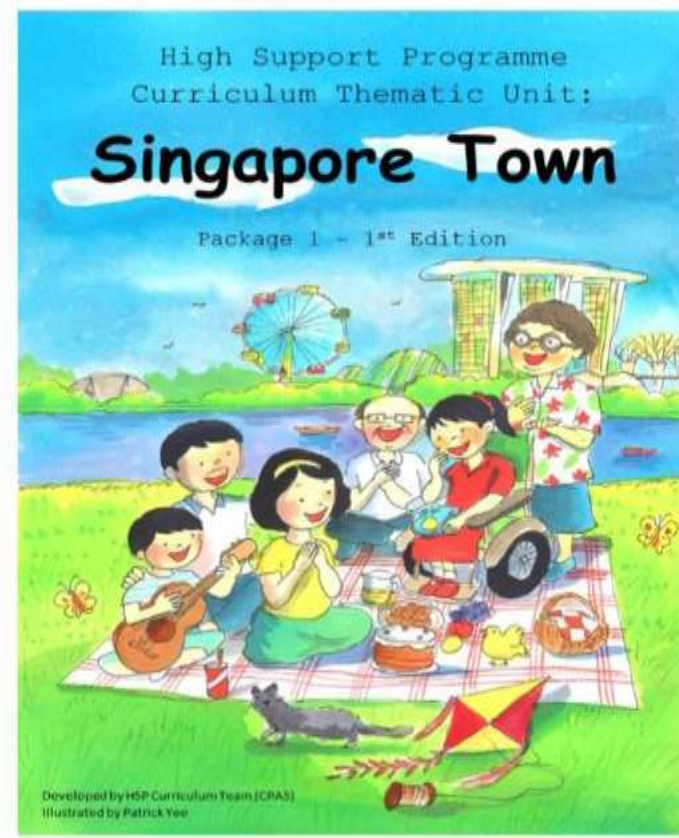
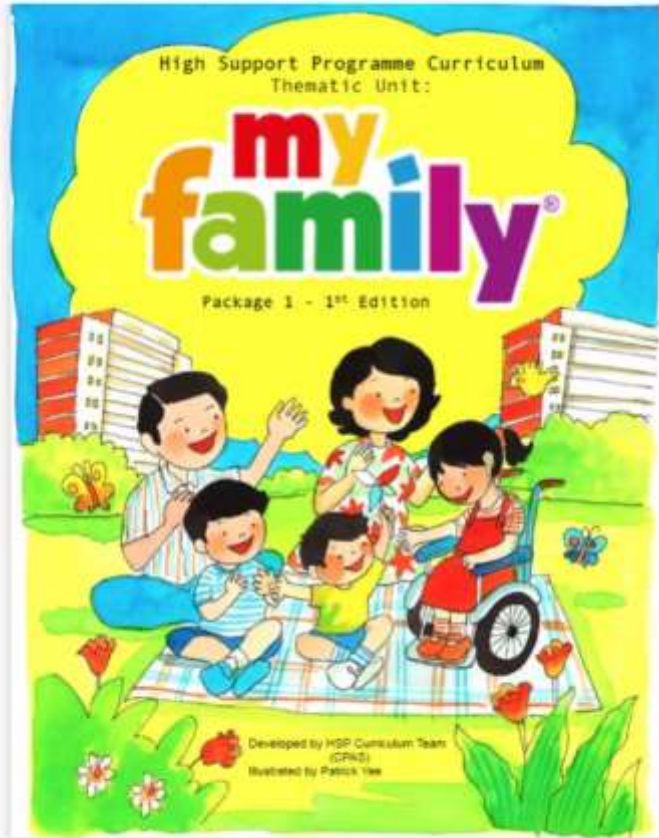


12 Themes

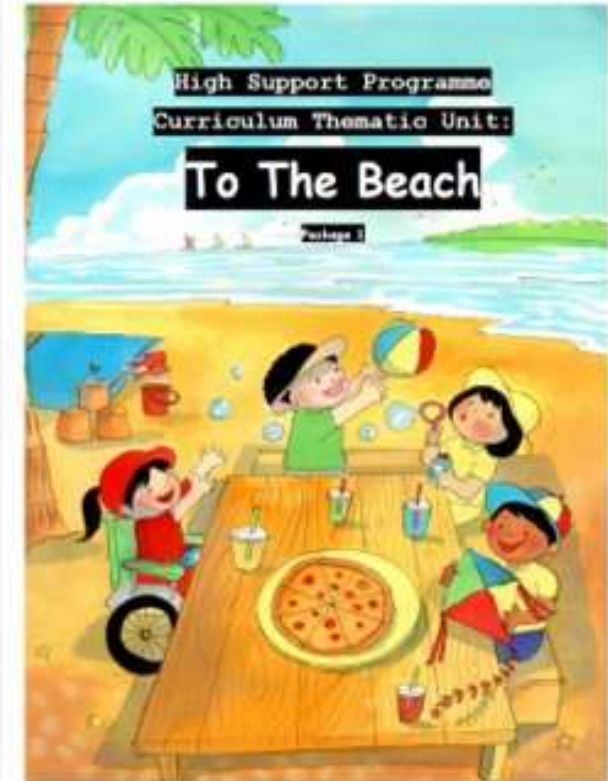
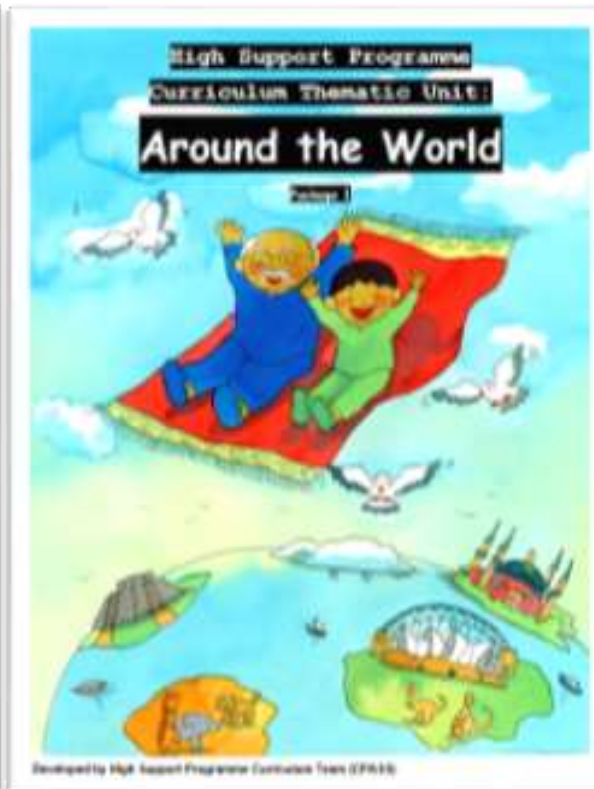
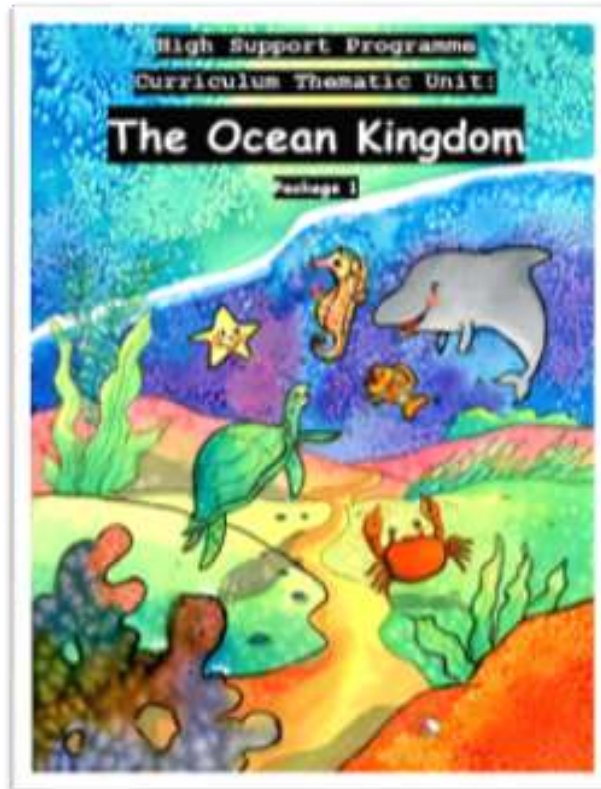
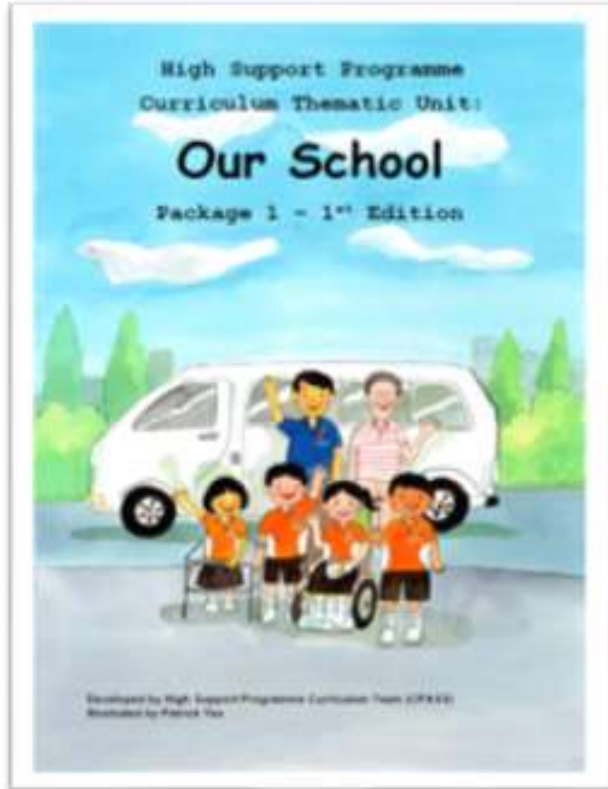
Year 1, 4, 7, 10	My Family	The Animal Kingdom	Singapore Town	Let's Go Camping
Year 2, 5, 8, 11	Our School	The Ocean Kingdom	Around the World	To the Beach
Year 3, 6, 9, 12	Our Cultures	The Magical Garden	Our Community	Movie Mania

- The themes will be repeated after 3 years with different activities, stories and resources in the form of expansion packages.

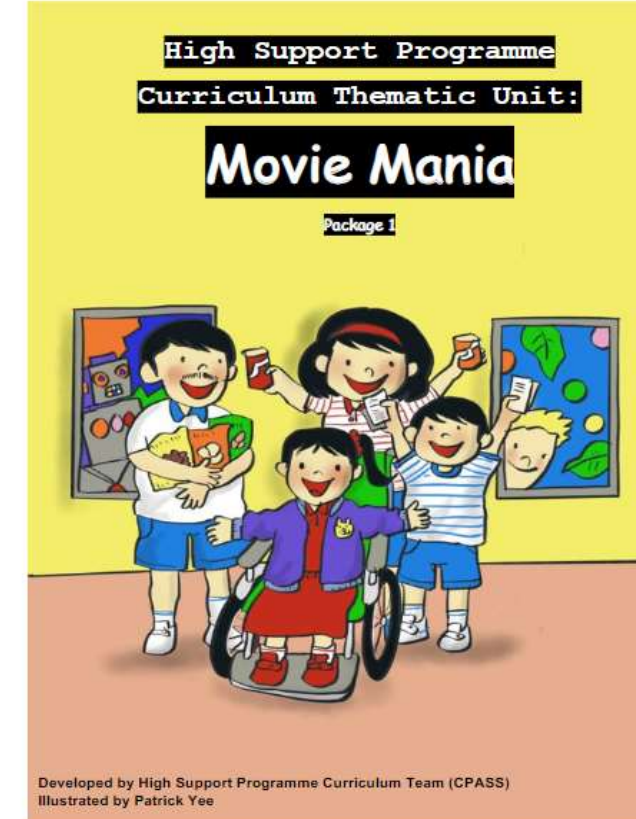
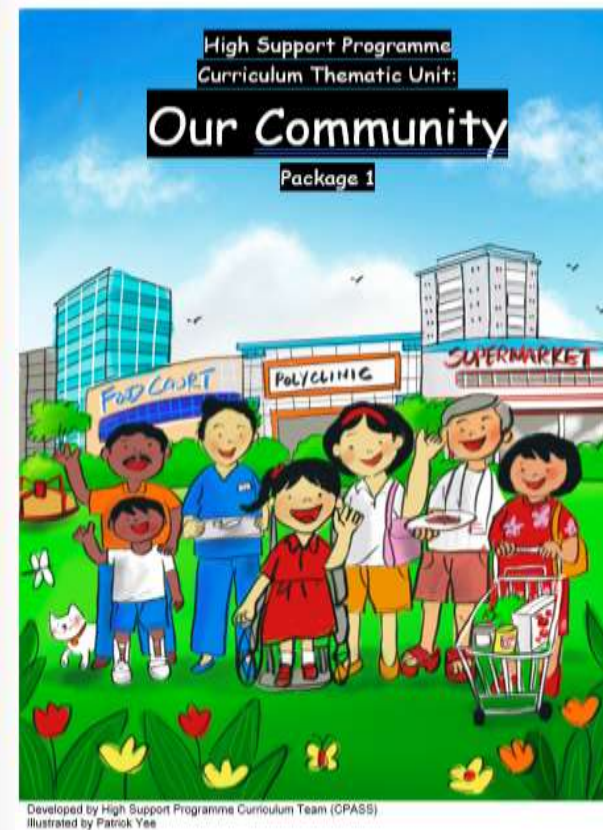
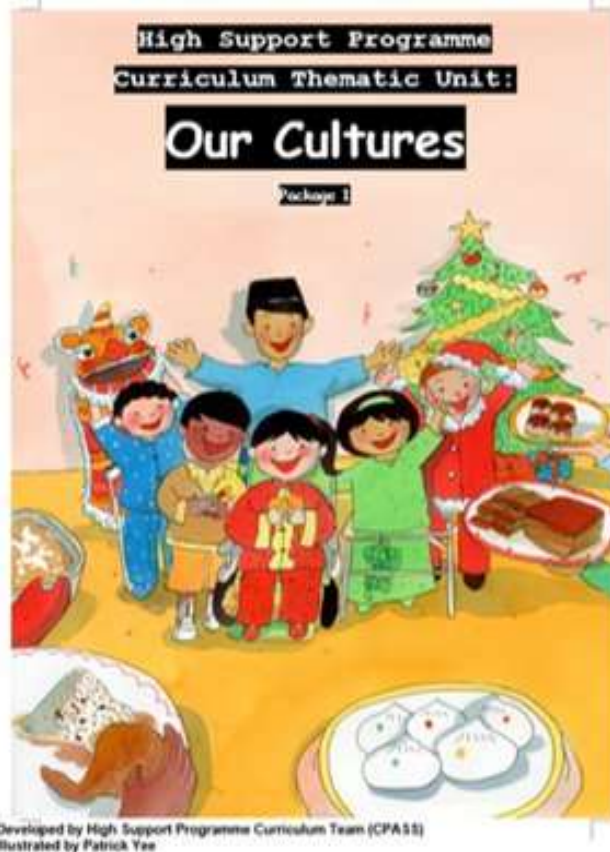
Thematic Packages 2020



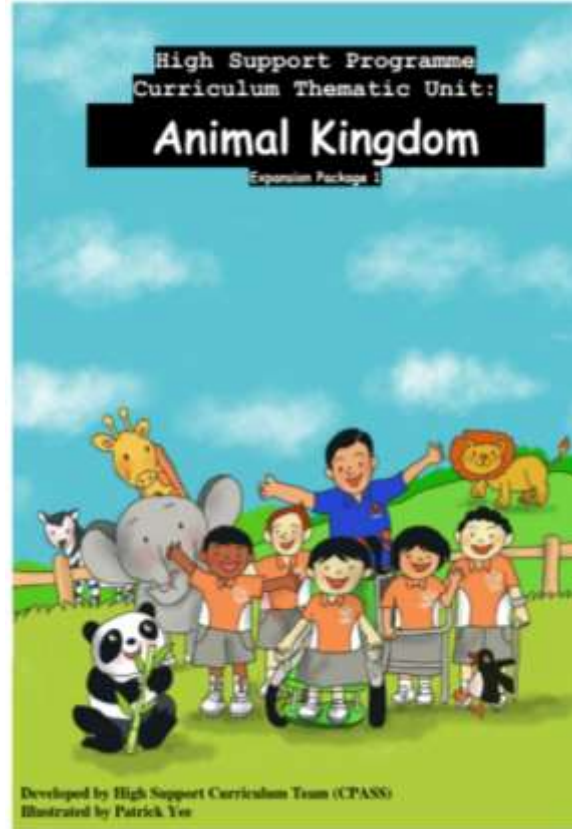
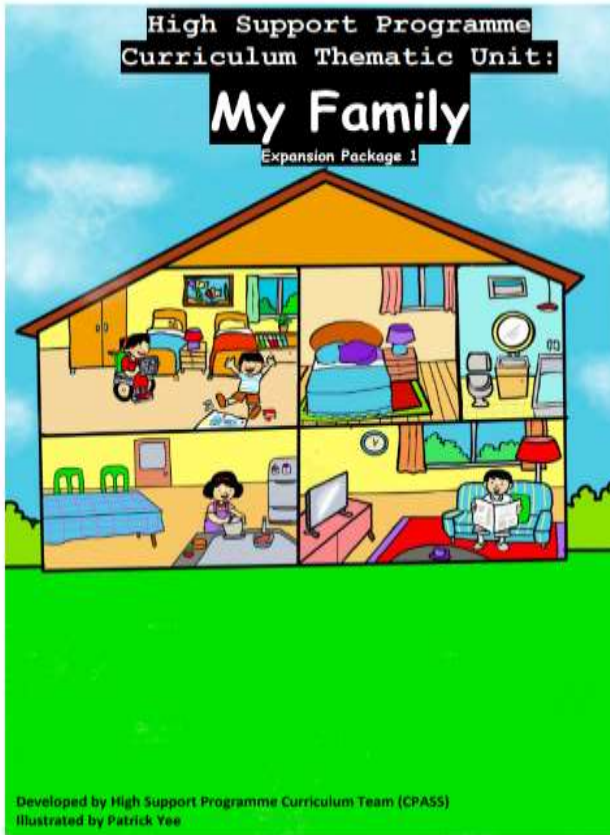
Thematic Packages 2021



Thematic Packages 2022



Thematic Packages 2023



Let's Go
Camping
(Exp 1)

Teaching and Learning Approach

In HSP, we adopt a **Multisensory Learning Approach**.

This approach implies that our teaching methods involve engaging more than one of our senses at a time.

These sensory experiences allow students to explore and make sense of their learning in the classroom.



Ocean Kingdom

Touch



Bodily Experiences



Smell



Sight



Hearing



Taste

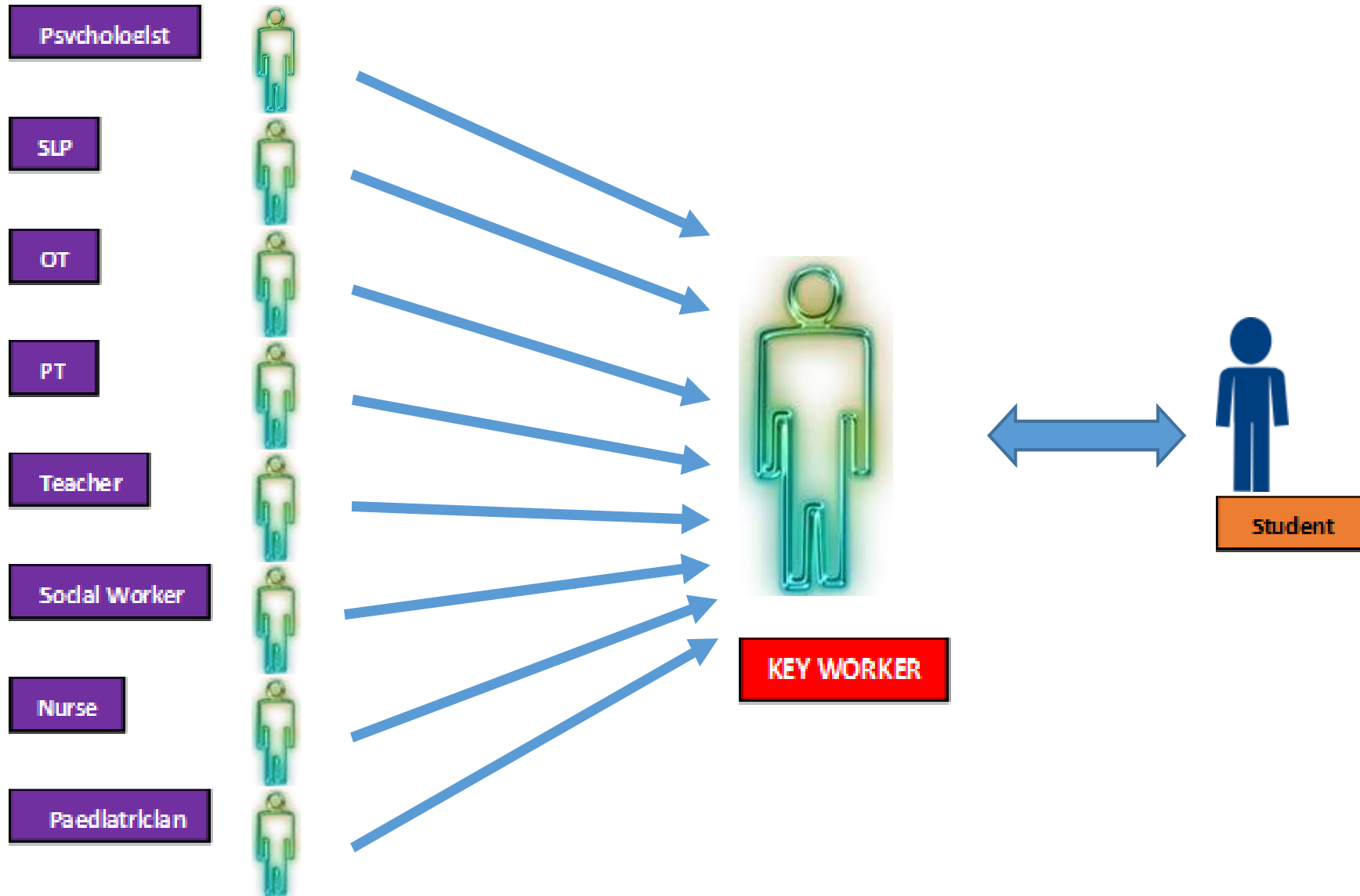


Customisation of Thematic Packages

- Incorporation of local elements –
 - Key events in Singapore (e.g., Singapore National Day)
 - Local culture and heritage (e.g., local traditions, games)
 - Multi-racial (e.g., Chinese, Malay, Indian, Eurasian elements – food, attires, festivals, culture)



Trans-D Approach



General Tips for Facilitating Arts

- Before the start of any art activity, please take a few minutes to do a simple warm-up activity to stretch their limbs (hands, fingers, elbows etc.) to prepare for art activities.

Suggestion for Art Warm Up:

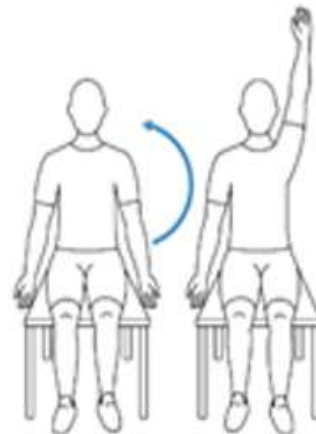
- Neck flexion, extension, side flexion and rotation



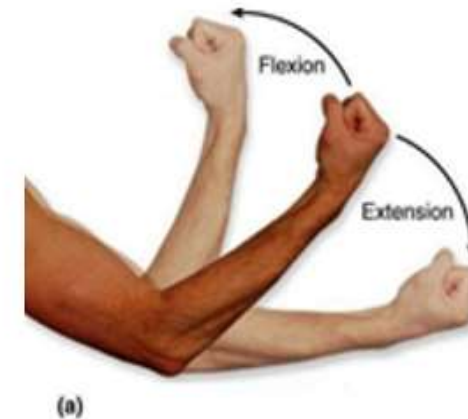
- Touch the toes or shin (if unable to reach toes)



- Shoulder flexion



- Elbow flexion & extension



Inputs from
Physiotherapy Dept:

Inputs from Speech & Language Pathology Dept:

- When presenting the items please note the food consistency which your student is eating:

Consistency:

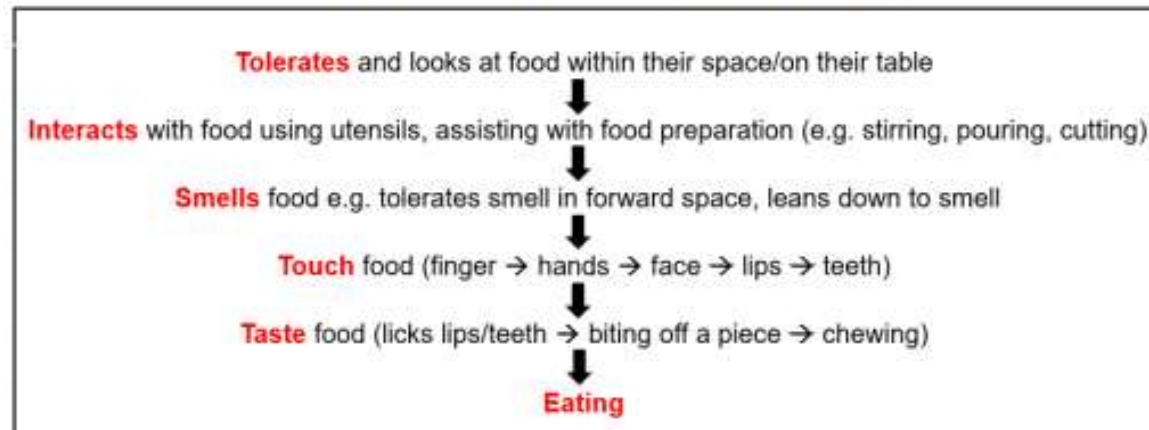
Liquidized Pureed Minced & Moist Soft & Bite-Sized Regular

(For more details: Please refer to Annex B: Daily Living_Food and Drink Consistencies in the Curriculum Booklet.

For example,

- For a student on soft & bite sized-diet, they can still explore hard textured foods, however, as a precaution, the food will have to be wrapped in a gauze.
- For those on a puree diet and/or tube feeding, please liaise with your SLP for food tasting.
- Please also ensure you are aware of your student's allergies.
- Please also take note of the sequence when presenting food items to your students (refer to sequence below).

Sequence for exposure to food items



Inputs from Speech & Language Pathology Dept:

The IDDSI Framework

Providing a common terminology for describing food textures and drink thicknesses to improve safety for individuals with swallowing difficulties.



© The International Dysphagia Diet Standardisation Initiative 2019 @ <https://iddsi.org/framework/>
 Licensed under the Creative Commons Attribution-ShareAlike 4.0 License <https://creativecommons.org/licenses/by-sa/4.0/deed.uk>
 Derivative works extending beyond language translation are NOT PERMITTED.

Food Consistencies

Please check in with your SLP for the food consistencies recommended for your students if you are unsure.

Type of Food/ Drinks	Food/ Drink Consistencies
	Soft
Banana	For students on <u>soft and bite sized diet</u> , teacher can cut into bite-sized pieces For students on <u>minced and moist diet</u> , teacher can mash the banana with a fork into minced and moist consistency
Chocolate chips	Regular/easy to chew
M&M chocolates	Regular/easy to chew
Marshmallow	Regular – it is sticky
Penguin banana chocolate	Regular – has different consistencies
	Regular – has seeds on the skin
Strawberries	For students on <u>soft and bite sized diet</u> , teacher can cut into bite-sized pieces For students on <u>minced and moist diet</u> , teacher can mash the strawberry with a fork into minced and moist consistency
Blueberries	Regular – has skin ** Cough precaution – as it can also become mixed consistency (solid + liquid) with the juice
	Soft
Pancake	For students on <u>soft and bite sized diet</u> , teacher can cut into bite-sized pieces For students on <u>minced and moist diet</u> , teacher can mash the pancake with a fork into minced and moist consistency
Giraffe cookie	Regular/easy to chew

Inputs from Speech & Language Pathology Dept:

- Facilitate where necessary. **Throughout the process, do incorporate your students' communication and fine motor skills goals where possible.*
 - Incorporate choice making/requesting/rejecting via students' respective communication modes.
 - "Do you want more?"
 - "Do you want to stop?"
 - "Which one do you want? (present options to the students) e.g. colours, shapes etc

Wait for the student to respond using their communication method

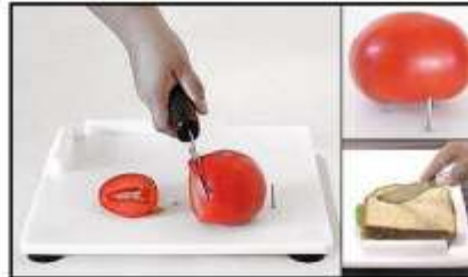
- Incorporate 1-step instructions when appropriate
 - take (object) / take once
 - give (object) adult/peer
 - scoop/pick up/mix

Teachers may also model the following vocabulary:

- Action words: hit, tap, pat, rub, rub, hold (optional: wipe, for cleaning up the wet surfaces with a towel/tissue after the activity)
- Prepositions: into, in
- Core words: more, stop, finish, help, yes, no, like, don't like, your turn, my turn, I, your, do
- Adjectives: wet, cold, dry
- Nouns: object related to activity

Inputs from Occupational Therapy Dept:

- Use adapted utensils and equipment.
 - Build up the handle of the utensils and tools that students with weak grip will be using.
 - Use a sandwich preparation board or help students to hold onto the bread while they spread kaya/butter on it.
 - Use adapted table top scissors to open packaging.
 - Use a kettle tipper. For safety, please only use the kettle tipper for room temperature and not boiling water.



- Use non slip mat for plates and other containers
- Use a visual timer display (websites or apps)
 - **App Store:** Visual Timer App
 - **Website:** <https://www.online-stopwatch.com/countdown-timer/>
 - Borrow a physical one from OT.
- If jars are difficult to access with the butter knife, can consider pouring out the spreads onto a bowl so students can access easier.

Inputs from
Occupational
Therapy
Dept:



Support from Assistive Technology Hub:

— “

“Switch Adaptations can make off-the-shelf toys playable by everyone including children with special needs!”.

Mr Ramlan Bin Hamim,
Educator
CPAS Assistive Technology (AT) Hub

” —

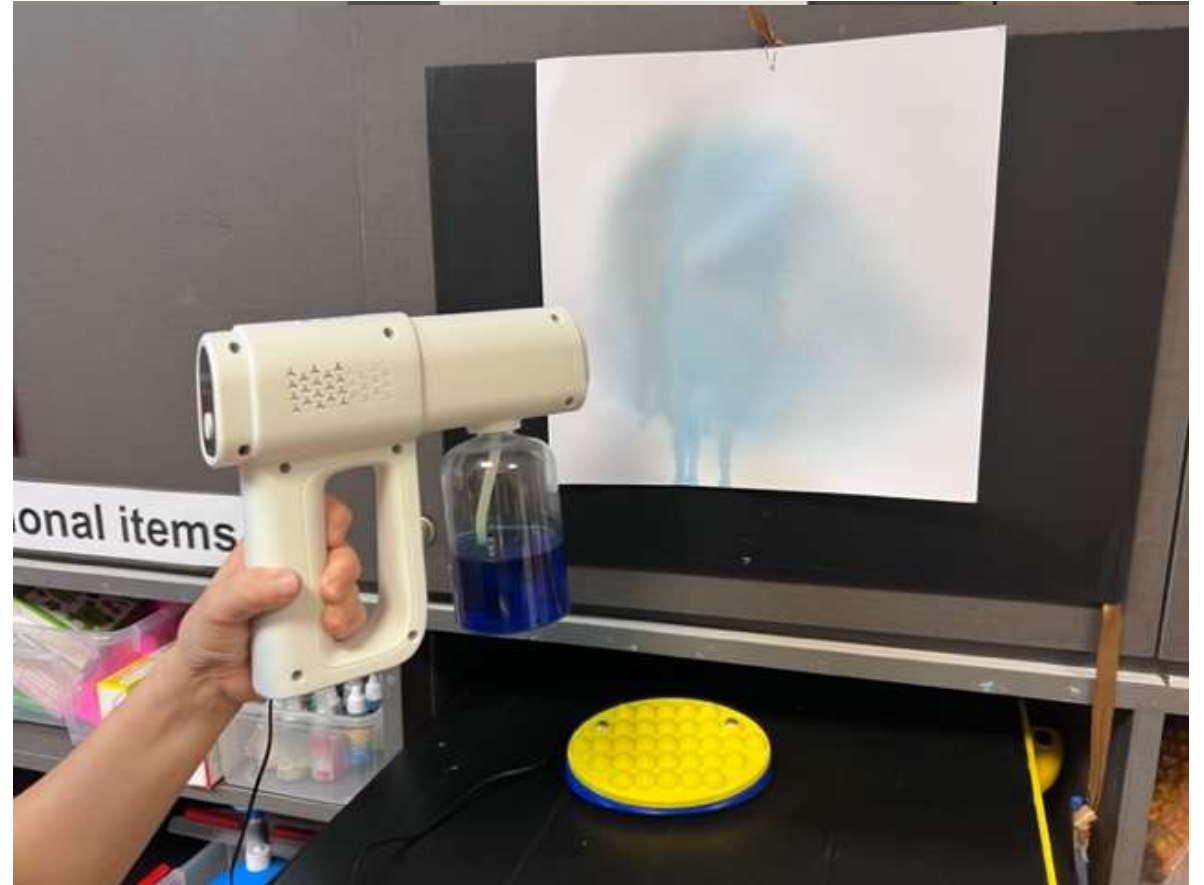


VIEW DEMO

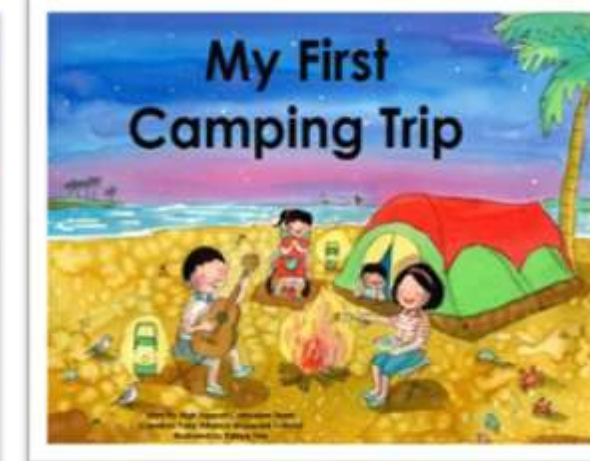
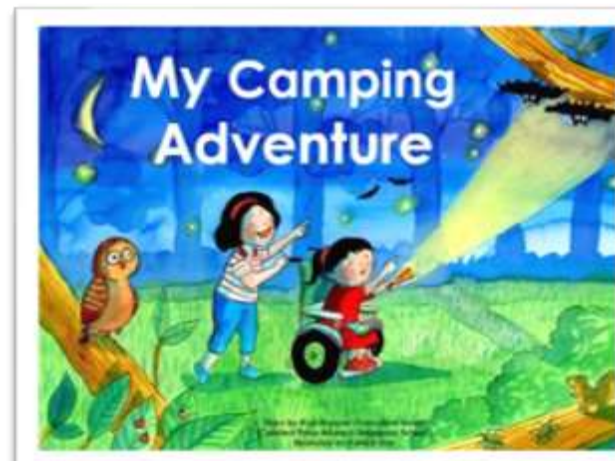
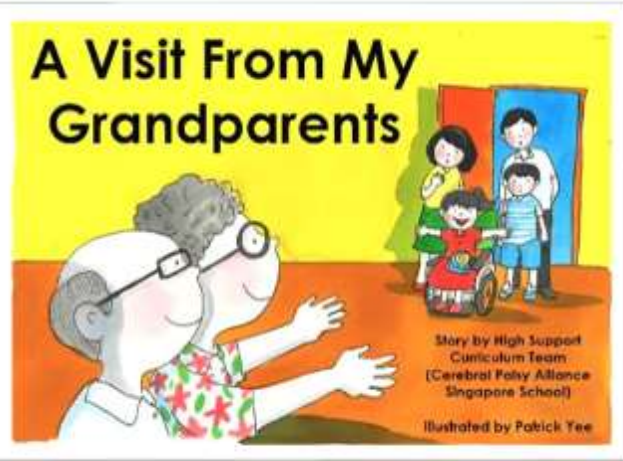


#CPASALLIEDHEALTH

Support from Assistive Technology Hub:



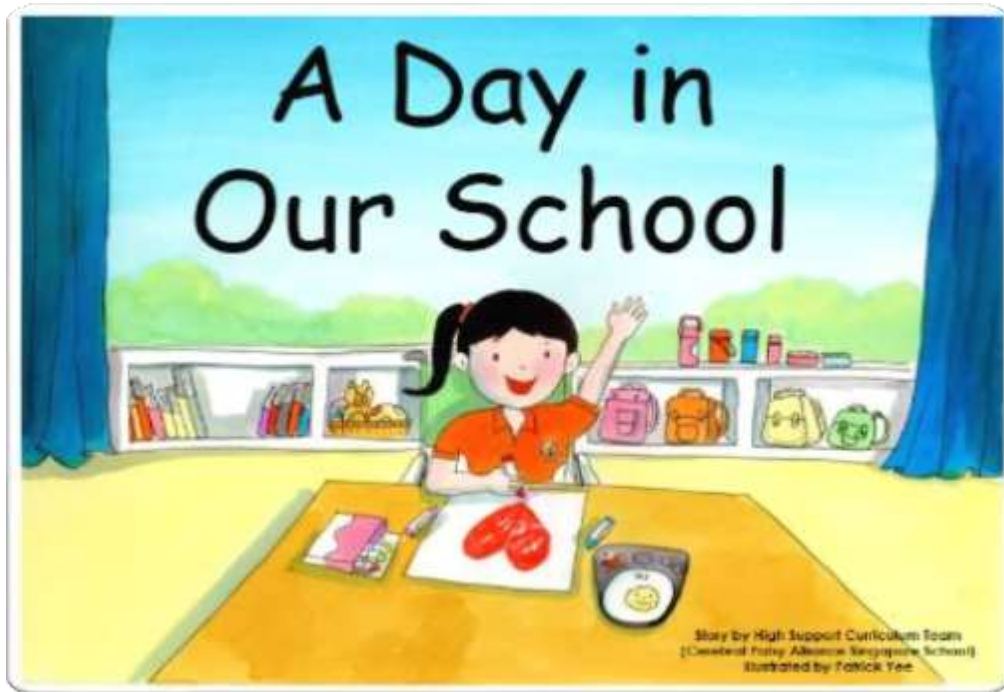
Customized Story Books



Customized Story Books



Customised Stories



- Collaborated with Speech & Language Pathology Department to create customised stories according to themes
- Incorporate 'core words' for language development
- Characters that reflect different learning profiles
- Opportunities for repetition

Customised Illustrations



- Collaborated with local artist – Mr Patrick Yee
- Customised illustrations for storybooks to reflect students' diverse learning and mobility profile
- Representative of students from different racial and cultural background

HSP Story Character - Eva



Mobility	Wheelchair
Ethnicity	Chinese
Comm & Language Ability	<ul style="list-style-type: none">• Transited from Big Mack to iPad• Words: e.g., Proloquo2go “Chat Folder”, “People Folder”, “feelings Folder”.• Single word, short phrases or simple sentences

HSP Story Character - Bala



Mobility	Ambulant with AFO
Ethnicity	Indian
Comm & Language Ability	<ul style="list-style-type: none">• iPad transited to verbal• Able to ask questions and speak in full sentences

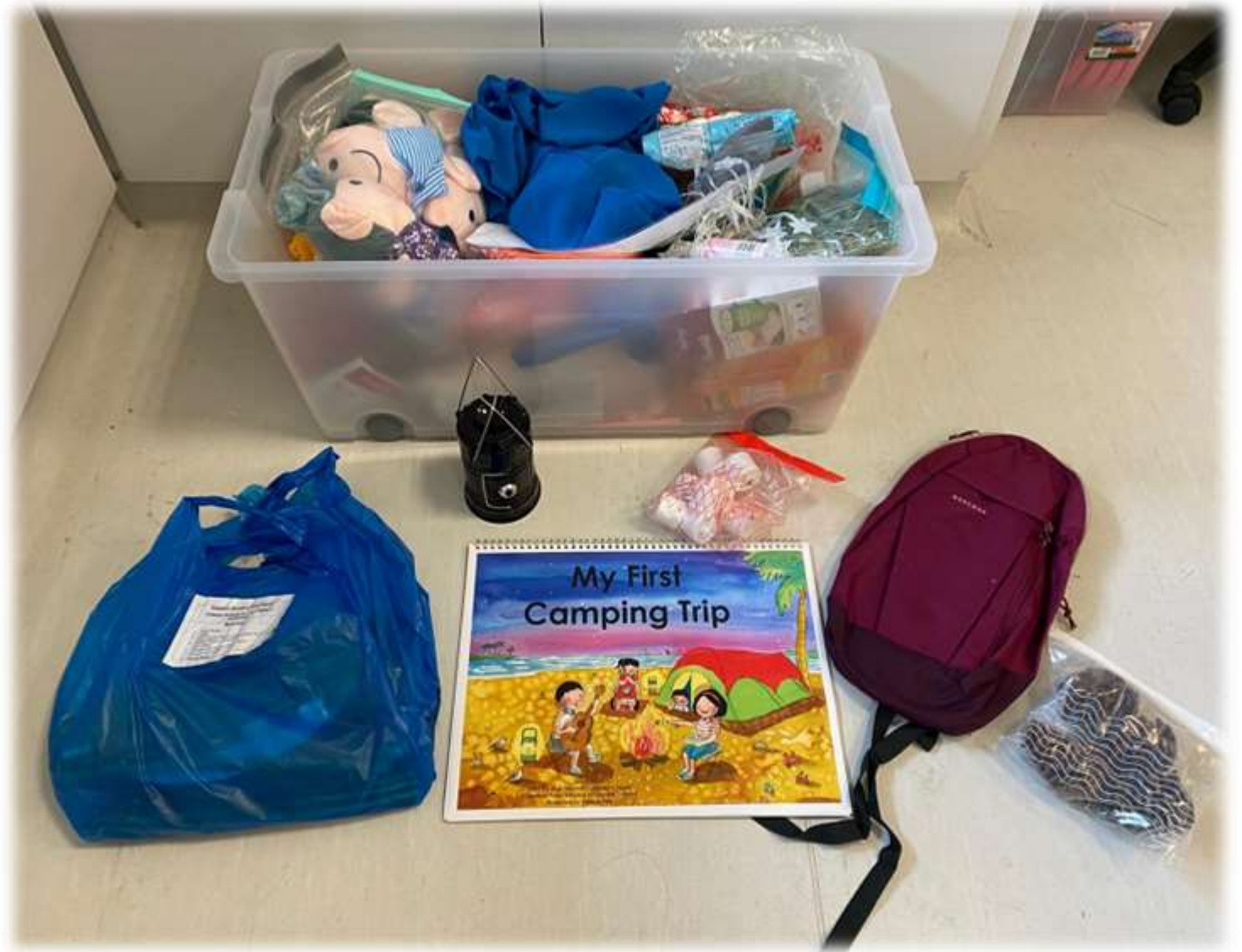
Classroom Resources

- In preparation for each package, the curriculum team will purchase, sort and sanitize all resources.



Classroom Resources

- Resources will be packed into boxes and given to each class.



Learning in Action!



Learning in Action!



Learning in Action!



Learning in Action!



Learning in Action!



Resources for Parents: CPAS HSP YouTube Channel

The screenshot displays the YouTube channel page for CPAS HSP. At the top, the CPAS logo and the text 'CPAS School High Support Programme' are visible. The channel name 'CPAS HSP' is circled in red. A red 'SUBSCRIBE' button is located on the right. Below the channel name are navigation tabs: HOME, VIDEOS, PLAYLISTS, CHANNELS, and ABOUT. The 'VIDEOS' tab is selected. Under 'Uploads', there are five video thumbnails with their titles and durations:

Video Title	Duration
Modified Soccer (Physical Development Activity)	1:40
Rainbow Hoops (Physical Development Activity)	2:36
Kick it Off! (Physical Development Activity)	1:20
Movement & Props: Stretchy Band Song (Music & Movement Activity)	1:16
Action Song: Friends Song (Music & Movement Activity)	3:04

Resources for Parents: CPAS HSP YouTube Channel

Audio Book



Story Massage



Art and Craft



Music and Movement



Physical Development



Teaching & Learning



Contact Us:

Email Addresses:

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joana_yeo@cpas.org.sg

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<http://www.education.gov.uk/a0013104/glossary-of-special-educational-needs-senterminology>
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