



OUTDOOR SPACES IN SPECIAL EDUCATION

PURPOSEFUL LANDSCAPE DESIGN FOR PLAY,
LEARNING AND SENSORY HEALTH

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INTRODUCTION

- Combining four ideas:
 - role of outdoors/nature in well-being, for everyone
 - importance of play for all children
 - making connections between play and sensory health
 - landscape architecture/ site planning
- About us
- Observations in special schools

TODAY

1. Play outdoors
2. Landscape Planning for school grounds
3. Sensory health
4. Purposeful Design- 8 play settings for diverse needs
5. Challenges



1. OUTDOORS



About being outdoors...

- well-being
- sensory regulation
- health, fitness, movement and exercise - importance in brain development and learning
- inclusion: outdoors allows more children to show mastery
- understanding of natural systems /stewardship



Outdoor play

- child directed
- child selected

play is
learning
with a
capital 'L'



Sobering
thought:

today - schools
are one of the
few places where
children actually
do play outside

2. LANDSCAPE PLANNING FOR SCHOOL GROUNDS

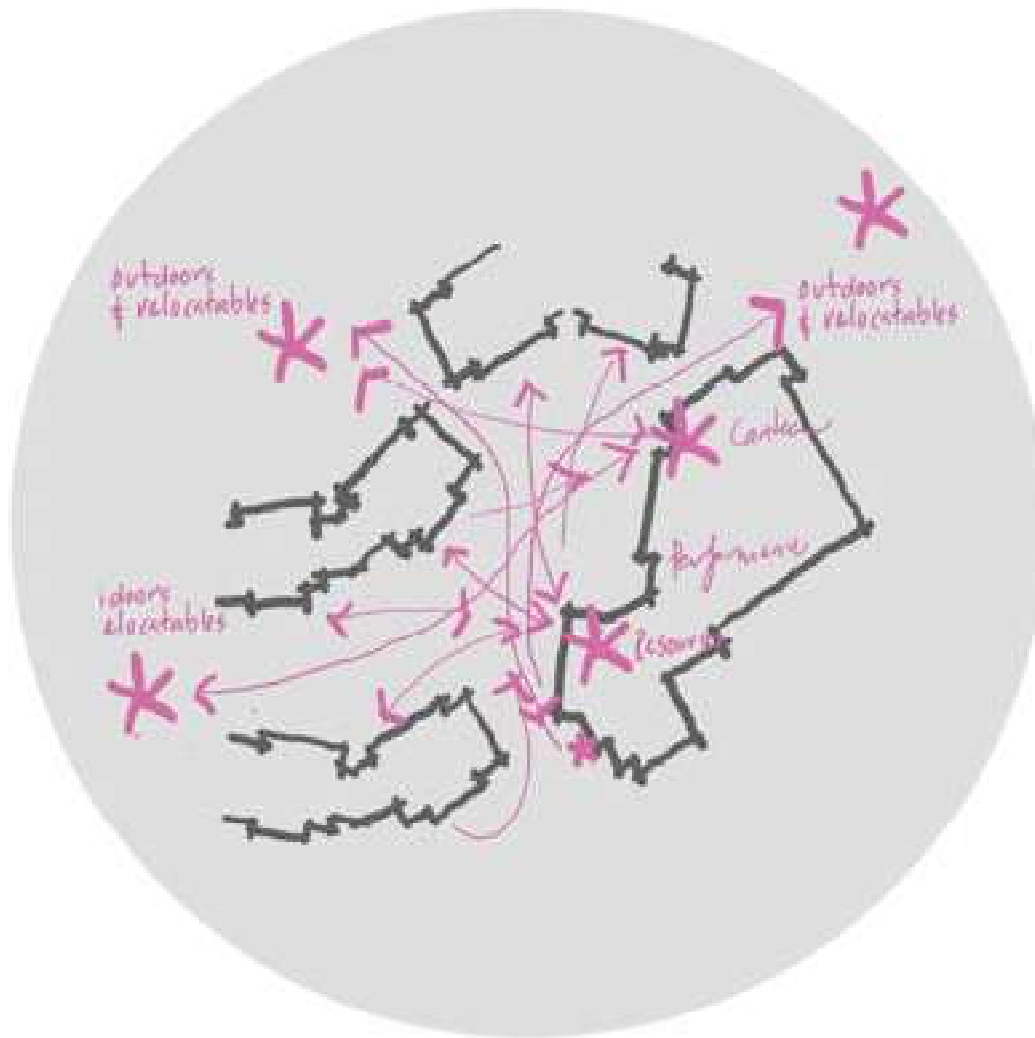


Landscape planning in schools

– why it's a good idea

- Consult and Observe
- Consider all the opportunities and constraints of the whole grounds
- piece together optimal uses for outdoor spaces
- Design for a purpose – what is the role of each space across the school
- Lots of stakeholder input
- Allows for budgeting and planning, grant applications etc
- Don't just order random equipment and expect the supplier to provide the best outcome
- Design process – design first then seek quotes





Avoid conflict
between moving
and sedentary /
vulnerable
activities

3. SENSORY HEALTH

Angela Tieman- Paediatric OT
Sensory Health Matters www.sensoryhealthmatters.au

www.physio-pedia.com/Sensory_Integration



About sensory
health

Sensory integration
and processing
how the brain
organises, processes
and makes sense of
input from these
8 senses

Sensory
integration -
important in child
development:

- social-emotional relationships,
- motor skills,
- cognitive skills,
- adaptive skills

OUR SENSES

EXTERIOR senses:

hearing
vision
smell
taste
touch

INTERIOR senses:

inside the body,
perceived through
organs,
e.g. hunger

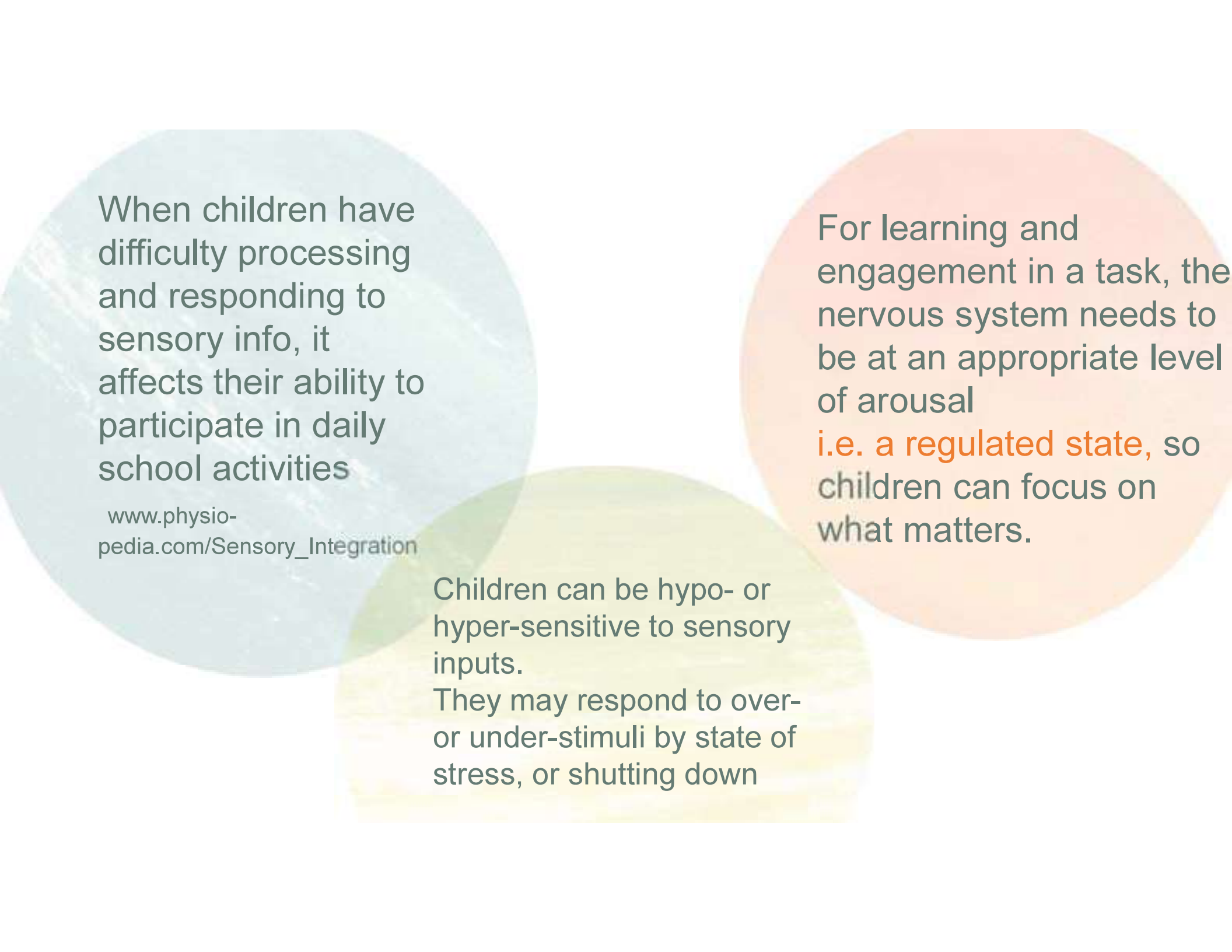
PROPRIOCEPTION

information about
location, movement,
and actions of our body
sense of effort,
sense of force

Movement Senses

VESTIBULAR

information about
movement, changing
head position and
gravity
linked to vision and
balance



When children have difficulty processing and responding to sensory info, it affects their ability to participate in daily school activities


www.physio-pedia.com/Sensory_Integration

For learning and engagement in a task, the nervous system needs to be at an appropriate level of arousal

i.e. a regulated state, so children can focus on what matters.

Children can be hypo- or hyper-sensitive to sensory inputs.

They may respond to over- or under-stimuli by state of stress, or shutting down



Goal - to use sensory activities, through outdoor play, to help children learn how to self-regulate their emotional states and behaviour, in order to progress and learn.

Most
proprioceptive activities are
regulating,
especially when
bringing in rhythm
and regularity.

- gross motor activities
- various movements
- weight-bearing activities- crawling and push-ups
- resistance activities - pushing and pulling

Vestibular Stimulation

Calming:

- slow, rhythmic movement
- linear plane movements
- back and forth; side-to-side

Excitatory-increases alertness:

- quick, unpredictable movements
- spinning
- up-and-down bouncing

- spinning
- rocking
- climbing
- sliding
- balancing
- bouncing
- swinging
- throwing a ball
- walking, running
- riding toys

About sensory health, cont.

We all have **sensory preferences** – (how our bodies respond to the world around us)

Environments that suit children's personal preferences **require less conscious effort** for them to be open to learning, e.g.

- very loud, bright, noisy
- quiet, enclosed
- very soft, not scratchy

Angela Tieman-
Paediatric OT
Sensory Health Matters
www.sensoryhealthmatters.au

4. LANDSCAPE PLANNING WITH PURPOSE

8 OUTDOOR PLAY SETTINGS FOR DIVERSE
PLAY AND SENSORY NEEDS




- diverse opportunities for children to engage their senses
- provide both stimulating or calming activities, physical activity and movement
- emotional safety
- develop new skills so that they are ready to learn



1. Running/walking/ball games / bikes / hard surfaces

- large scale, active spaces
- access paths and circulation routes
- ovals, hard courts/multi purpose games surfaces
- running tracks, bike-ed, other sports



can be drivers
of conflict

physical activity ball skills



vital circulation, social interaction, and inclusion



2. *Opportunities for varying levels of climbing and risk taking*

- climbing is a fundamental means of exploring and testing skills
- offers children the chance to acquire the skills at their own pace
- choice of degrees of challenge



- progression, skill development
- 'enabling' design and mastery
- use of large muscles
- requires provision of different sizes and scales of equipment
- opt-in challenge
- access to slides as a particular focus





Match the degree of challenge to the intended age group



Structures for young children

- The benefit of a stair as well as other climbing options
- Slide to get down





A choice of ways up:

- stair, rungs and net
- slide to get down

Adaptable

Cubby under

A fine line between skill development, mastery, challenge and failure:

- reduce injuries and enhance skill development and mastery by:
 - providing graded skill progression and challenges
 - enabling design
- and think about the diverse needs and interests of children, especially in a school

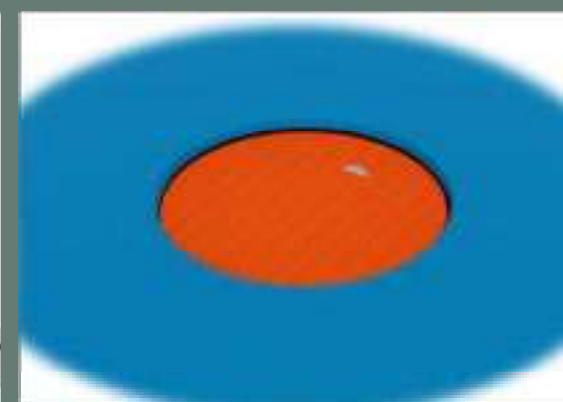


3. *Key forms of movement*

Types of movement on equipment

- Swinging
- Rocking (see saw, spring rocker)
- Spinning (carousel; spinning tunnel)
- Bouncing (play space trampolines)
- Gliding (flying fox/track ride)
- Sliding
- Agility
- Combinations

- great for sensory regulation (vestibular and proprioception)
- calming or stimulating
- choose accessible designs









Selection tips for equipment

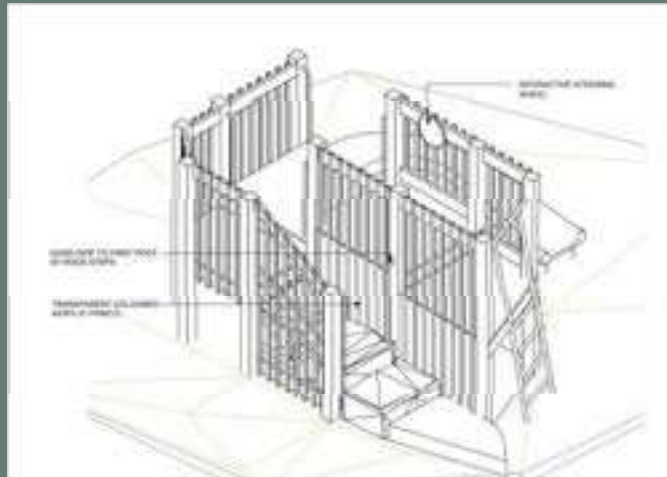
- provide diversity and choice- in height, challenge and type
- provide enough swings
- design for social/ inclusion
 - choice of seat types/sizes
 - group and single items
 - back support
 - easy access; direct transfer
 - hand grips
- choose items that offer other 'affordances'

4. *Other external senses*



Visual:

- light
- colours
- smell/ taste
- sound





Tactile

opportunities
for
progressive
exposure to
overcome
aversions

5. *Sand / digging*

- exploration of the touch senses
- digging / use of large muscles
- imagination / creativity



6. *Calming spaces*

- intimate scale
- full-body pressure
- tunnels







- gentle rocking

7. *Settings for creative, pretend play*

- related to imagination, creativity, language development, empathy, social and cognitive skills
- Ideally combine with sand/ loose materials in a role play setting







8. *Natural elements and loose materials*



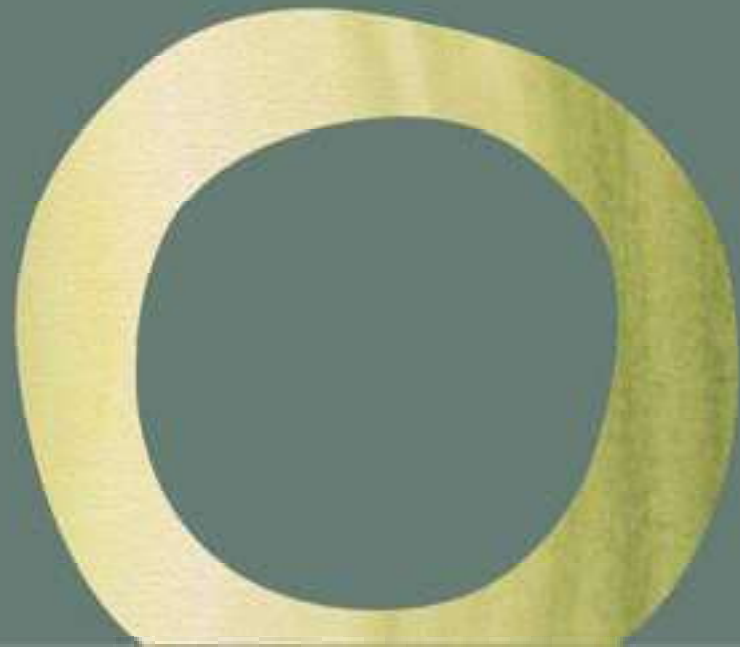




Touch, taste,
smell

natural areas / living things

- productive gardens,
- trees, forests, habitat
- lawns, gardens,
- amenity









5. CHALLENGES



Special challenges

- Children's safety
- Ingesting loose materials and plants
- Weapons/other children's behaviour
- Supervision

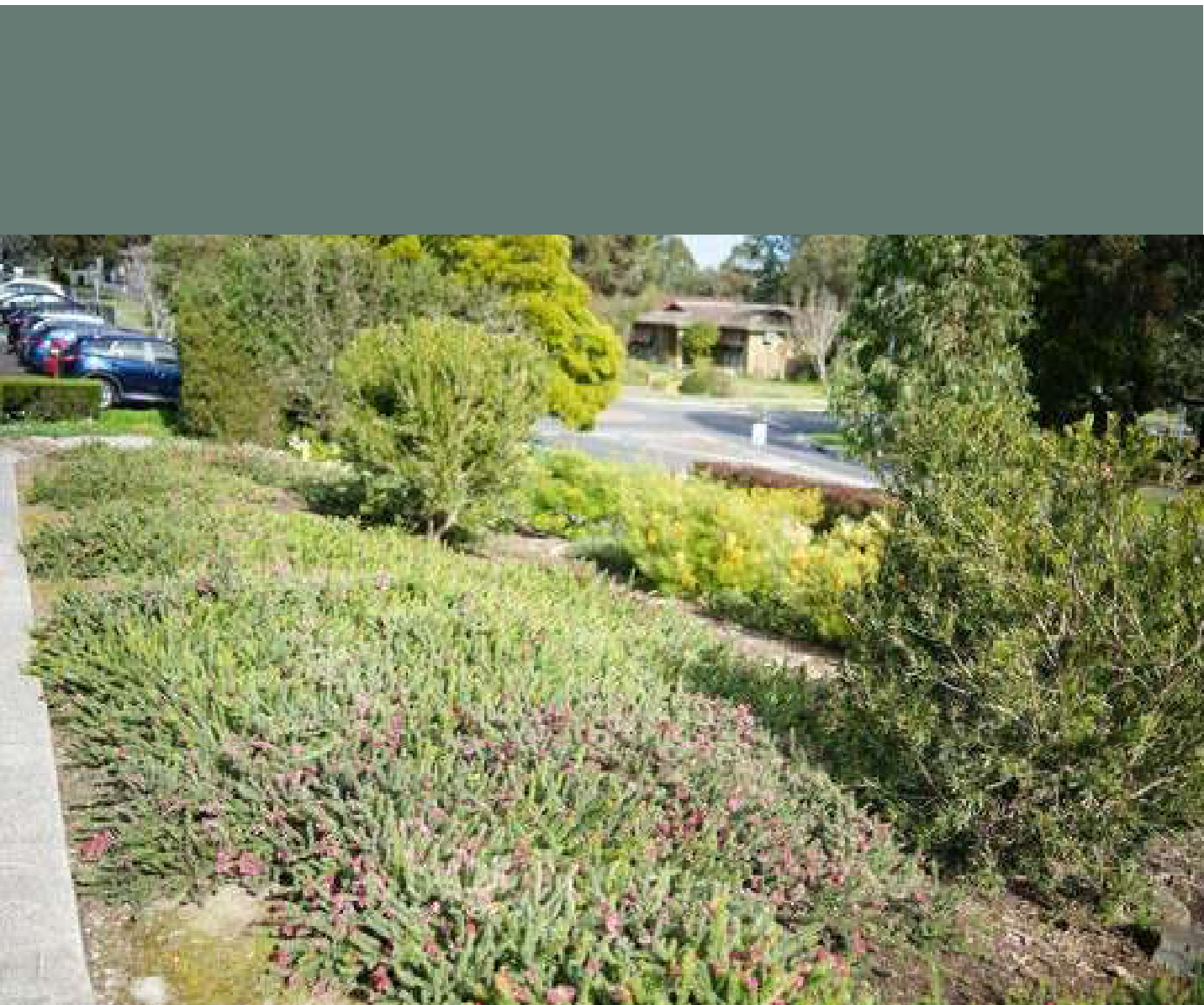
Play in these types of spaces at school is vulnerable...

- to conflicts
- disturbance
- crowding
- lack of materials
- lack of time
- over- control
- ideas about mess
- risk aversion
- new buildings



Plant survival





Strategies for plant survival

- tough plants in the right place
- large enough garden beds
- protect root zones-with barriers, raised beds, plant between rocks
- maintenance and care
- education
- following intensely loved play zones



protected planting

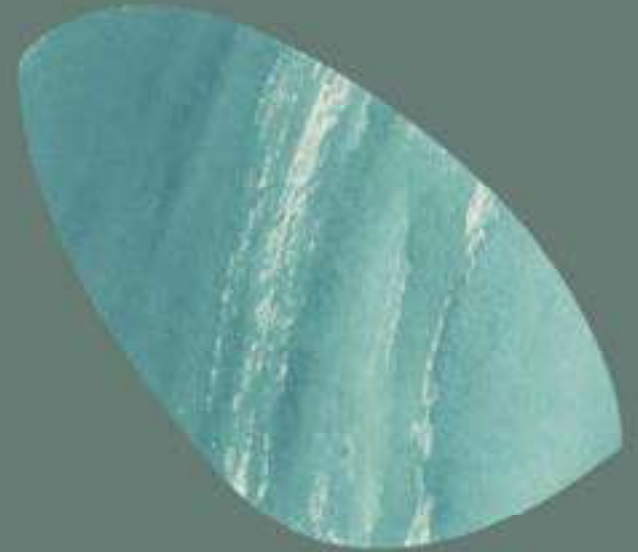






Your homework...

- take a closer look at what children are doing in your school
- or what they could be doing
- how are their sensory needs being met through outdoor play?
- how does the setting measure up?





Thanks, and
over to you

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