

EMPOWERING EARLY YEARS

**Rackenford Primary School
Thursday 27th June 2019**

Continuous provision and skills: Utilising Loose parts and provocations from EY to KS2 to enhance learning.



Empowering Early Years

SUMMARY: Continuous provision: LOOSE PARTS/ PROVOCATIONS, EY AND BEYOND....

WHY PLAY? The skills of a playful learner and context, plus key factors for non EY teachers to remember.

WHAT are Loose parts & Provocations?

SKILLS potential linked to LOOSE PARTS learning -Research – FM skills, positive learning behaviours, maths and literacy etc.

KEY NEURO-COGNITIVE knowledge, Brain development and how children learn in all areas linked to LP play.

LOOSE PARTS - WHAT/ WHY/WHERE/ HOW ?

- Enhancements
- Affordance theory
- Outdoor vs indoor Loose parts
- Risky play and planning.

Loose Parts Challenges examples – Loose parts lab:

- Large loose parts play and maths
- Role play and literacy/ writing
- Construction/ Block play and maths/ literacy/ STEM
- Small scale loose parts and mathematical creativity – pattern/ properties etc.

Loose Parts storage

Getting Parents on board with FM skills.

Discussion



WHY PLAY?

'PLAY' IS NOT A DIRTY WORD:

For ALL CHILDREN, through physical freedom, opportunity, time, support, interactions, interest-led, autonomy, challenge & open-endedness/ risks taken and self-directed fun, it allows for the essential skills of:

- **Motivation in self-led learning (all children are born interested in everything).**
- **Resilience –problem solving**
- **Risk-taking (link to confidence/ growth mindset – aim higher)**
- **Creative thinking (divergent vs Convergent) - INNOVATION/ GENIUS – NASA 2017**(<https://www.youtube.com/watch?v=ZfKMqrYtnc&feature=youtu.be&t=5m29s/> <https://ideapod.com/born-creative-geniuses-education-system-dumbs-us-according-nasa-scientists/>)
- **Practice of key high level socio-emotional skills necessary for life & later achievement (self regulation, collaboration, empathy)**
- **Dynamic learning (not static)**
- **Practice of taught concepts (esp maths, linguistic competency)**
- **Reflection and evaluation.**



ALMOST ALL
CREATIVITY INVOLVES
PURPOSEFUL PLAY.

ABRAHAM MASLOW

TEACHERS, REMEMBER!...

Freedom to be creative and play with Loose Parts as part of planning, does NOT have to mean:

- Anarchy in behaviour (through noise, mess, movement, self-expression, this is learning & rules can be shared)
- Should NOT feel detrimental to your teaching prowess or authority (you are still great and in charge)
- Should not be considered less planned, nor unable to be assessed in a valid way
- Shouldn't be impossible for the learning to be documented, observed or cover all the objectives that you need.



BUT it IS about understanding that the KEY for learning with loose parts is in trusting in PROCESS over PRODUCT

NB: For the teacher, (although planning for skills using Loose parts activity):

- There are risks with the learning (as with all good things), you need confidence, as the learning has no ceiling (like a work sheet does), but this means opportunity to exceed expectation increases for all children.
- The learning may be incidental through play - but no less valid and different learning happens all the time.
- The learning may exceed your expectation, meaning you need to re-work your plans (expect the unexpected!)
- The creative freedom in process and scope afforded to the children is ESSENTIAL to their own breadth and depth of learning, as well as overall engagement in the learning process as MOTIVATED learners.
- The open-ended-ness still allows for sharp assessment of learning, through real observation leading to assessment of next unique steps for each child.
- It supports reflective practice based on engaged activity, through enhanced plans for engagement & differentiated skills support (based on next steps, triple loop). Thus, allowing **each unique child to thrive**.



2022 Skills Outlook

Growing

- 1 Analytical thinking and innovation
- 2 Active learning and learning strategies
- 3 Creativity, originality and initiative
- 4 Technology design and programming
- 5 Critical thinking and analysis
- 6 Complex problem-solving
- 7 Leadership and social influence
- 8 Emotional intelligence
- 9 Reasoning, problem-solving and ideation
- 10 Systems analysis and evaluation

Declining

- 1 Manual dexterity, endurance and precision
- 2 Memory, verbal, auditory and spatial abilities
- 3 Management of financial, material resources
- 4 Technology installation and maintenance
- 5 Reading, writing, math and active listening
- 6 Management of personnel
- 7 Quality control and safety awareness
- 8 Coordination and time management
- 9 Visual, auditory and speech abilities
- 10 Technology use, monitoring and control



CONTEXT:

Why Loose parts play matters...

(Source: Future of Jobs Report 2018, World Economic Forum).

For the child in LP play:
The process allows for all of these growing skills as well as key FINE MOTOR skills:

For the positive fulfilment of the unique potential of each of the citizens of tomorrow we support & in order to differentiate from what robots can do, we NEED to support, enable and encourage these essential skills (through PLAY/ PLAYFUL LEARNING CONTEXTS).

SKILLS LINKED TO LOOSE PARTS PLAY / CONTEXT: Why do we need FM skills?

Tristram Hunt –Director of the V and A Museum

*"These are the skills which will enable young people to **navigate the changing workplace of the future and stay ahead of the robots**, not exam grades. These **meta-skills are critical in all sectors**, not just the creative industries." (Launch of 'Towards a 21stC education system report' The Edge Foundation – Oct 2018),*

Source <http://www.edge.co.uk/news/edge-news/towards-a-twenty-first-century-education-system-edge-future-learning>

- Feb' 2018, The Guardian – '*Children struggle to hold pencils due to too much tech, doctors say*'
<https://www.theguardian.com/society/2018/feb/25/children-struggle-to-hold-pencils-due-to-too-much-tech-doctors-say>
- BBC News, 30.10.2018 '*Surgery students 'losing dexterity to stitch patients*'.
<https://www.bbc.co.uk/news/education-46019429>

LOOSE PARTS:

‘When children interact with loose parts, they enter a world of “What if?” that promotes the type of thinking that leads to problem solving and theoretical reasoning.

Loose parts enhance children’s ability to think imaginatively and see solutions, and they bring a sense of adventure and excitement to children’s play.’

(Daly and Beloglovsky, 2015, cited in Play Wales 2017)



WHAT ARE LOOSE PARTS?

(Loose parts are...) 'Any collection of **fully movable elements** that **inspire** a person to pick up, **re-arrange** or **create** new configurations, even realities, one piece or multiple pieces at a time.

Loose parts require the **hand and mind to work in concert**; they are **catalysts to inquiry**. Loose parts are the flexible edge of an **inviting, open-ended, interactive environment** that allows participants to **make an imprint of their intention**.

Experiences with loose parts provide a **profound yet playful** way for children to form associations between **learning and pleasure**'.

Ref: Sutton, (2011)



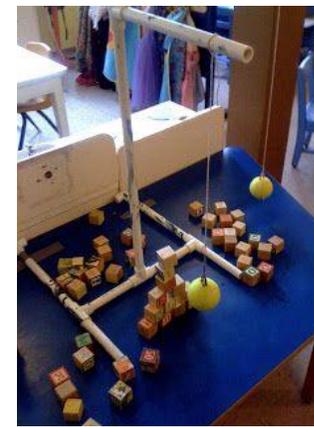
LOOSE PARTS provide some of the **BEST opportunities** for enhanced, child-led, engaging & unique play, either individually or with peers. They create **physical, sensory, creative, cognitive and practical opportunities** for learning, through interest for the unique child.

Loose parts are essential, inclusive tools for learning, allowing educators to **reflect** upon their own spaces, learning environment & cohort **passions**, whilst utilising **cost-effective & easy multi-sensory** resources in a **carefully thought-out** way, in order to **enhance the depth and breadth of differentiated skills development** and **playful learning** experiences, enhancing the breadth and depth of learning for each child.



PROVOCATIONS:

- Reggio- Emilia pedagogy concept to inspire wonder, thought, talk etc...
- Can use to enhance mathematics understanding and practice using loose parts (interesting working objects or things to deconstruct, objects from nature).
- Inspire greater talk and depth in Loose parts creativity, role play construction – through visuals, key linked objects to storytelling etc?

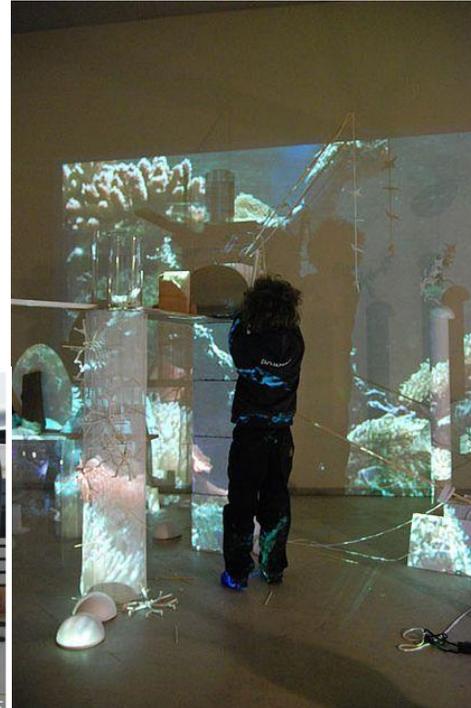


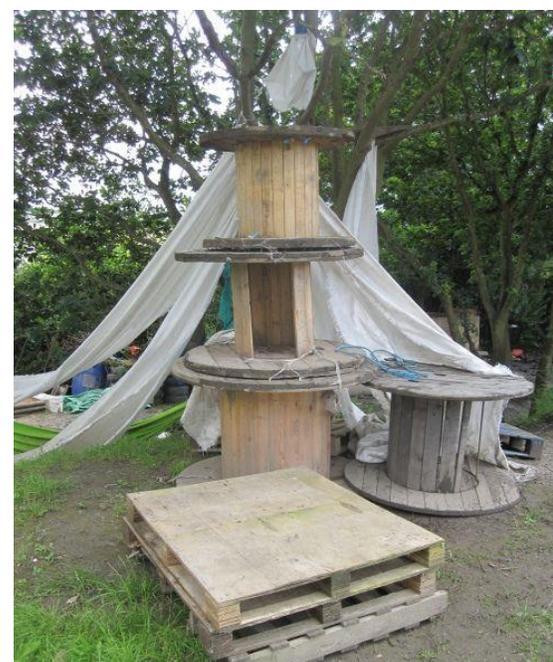
Hayshead Nursery
Provocations

What is a provocation?

Put simply, provocations provoke! They provoke thoughts, discussions, questions, interests, creativity and ideas. They can also expand on a thought, project, idea and interest.

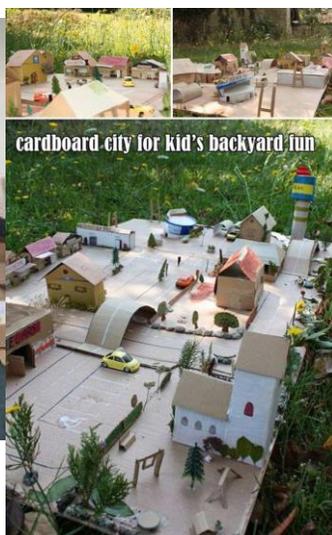
<http://www.racheous.com/reggio-inspired/what-provocation-reggio/>





OUTDOOR





Between three and six years,
children rapidly acquire new
gross- and fine-motor skills.
Activities using loose parts help
them develop confidence in
their ability to use their bodies...



Lisa Daly & Miriam Beloglovsky

(Loose Parts: Inspiring Play in Young Children)



LOOSE PARTS PLAY & FM SKILLS RESEARCH

Why we NEED to allow children to develop these skills.

- **Stoeger et al, (2013), Dinehart, L. & Manfra, L. (2013).** Link to later achievements overall ('Closing the gap': lower income children and FM skills, in relation to later academic achievement) (Cognitive/ FM link)
- **Pitchford et al (2016)** FM skills as a predictor of Maths ability.
- **MacDonald, M et al (2016)** Object manipulation skills and subsequent PSED skills of self regulation and pro-social behaviour .
- **Choi et al. (2018),** Expressive language abilities of children in relation to their FM skills.
- **Iverson, (2010)** Motor development and developing language skills.

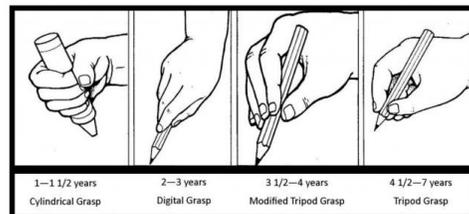


WHAT ARE FINE MOTOR SKILLS?

The term "fine motor skills" technically refers to one's ability to control the small movements of the hands and fingers, as well as the small muscles of the face and mouth (tongue) and feet.

They enable skills of **self-care (PD)**, **self-confidence in doing/ playing/ friendships (PSED)**, **language & communication (SLC)**, **Manipulation of objects (Writing, Reading, construction (Maths), creative, life skills)** and **affect the fulfilment of a child's full potential (behavioural impact and resilience levels)**

FM skills follow GM skills development (strength, balance etc) and are all linked to healthy brain development, hand eye co-ordination and the opportunity to practice and develop these skills in play!



HOW FM SKILLS HELP DEVELOPMENT!

- ‘**Experiential learning**’- meaning navigating our environment and experiencing it more in a sensory way, strengthening neural networks (ie’ learning) & physical skills. **Schreiber, (2015)**
- The ***prefrontal cortex*** of the brain is involved in **processing physical motor (movement) information as well as cognitive (thinking/complex) tasks**, thus through doing (FM activity), we enable all areas of the brain to function better together& we can make our needs understood, make informed decisions, begin to reason and problem solve and understand our bodies and minds better. **Carlson et al, (2013)**



HOW FM SKILLS HELP DEVELOPMENT!

If master FM skills (ie writing/getting dressed), then don't need to exert as much cognitive and physical effort into it (as it becomes a learnt skill in procedural memory) & thus frees up brain for greater attention, memory capacity and ultimately learning! Better Self-Regulation too (which has health implications).

Refs: Graziano et al (2013), Moffitt et al, (2011).



TECHNOLOGY AND FM SKILLS!



Finger swiping isn't necessarily a quality FM skill!

One dimensional – using fingers, less wrist strength, rotation, arm rotation and core strength skills associated with other LP play than tech use, essential for writing and attention.

It brings about an instant response of colours/shapes/ sounds & a child's brain responds with the neurotransmitter **dopamine**, the key component in our reward system - associated with feelings of pleasure.

- Dopamine hits in the brain can feel addictive & high level users of screens have been shown to have same dopamine levels in the brain as addicts.
- **Addiction, leads to problems with self-regulation.**
- Finger swiping or letter tracing using one finger is **not** same as real-life FM play using objects, senses, whole body & social interaction, supporting greater brain development & pro-social skills.
- Source: <https://www.psychologytoday.com/blog/behind-online-behavior/201604/what-screen-time-can-really-do-kids-brains>



LOOSE PARTS IN LEARNING: SKILLS POTENTIAL – POSITIVE LEARNING BEHAVIOURS

EY-PSED – Self-regulation (executive functioning behaviours through healthy brain development), social language, teamwork/collaboration, resilience, perseverance, attention.

Ks1 & beyond:

- Autonomy (link to citizenship in school environment),
- Ownership
- Creativity – blue sky thinking (innovation)
- Power of self-led learning
- Motivated learners
- Risk-taking through challenge, open-ended nature of LP play.



5 R's – Risk, relationships, resilience, reflective, resourceful.



LOOSE PARTS IN LEARNING : SKILLS POTENTIAL – LITERACY

WRITING through LP play (Role play, provocations, construction, creative freedom with loose parts etc)

FM (and GM) skills inherent in LP play – links to **EMERGENT LITERACY**, bilateral integration of brain & supports language development (expressive/ receptive language and encoding etc (link to tracking, memory, comprehension, reading)).



KS1 and beyond:

- Something self-led and influenced, inspiring writing in every opportunity.
- Developing more sophisticated language structures – hypothetical, instructional writing, recounting, evaluation, reflection, tenses, adding in descriptives, use of modals through hypothetical thoughts in problem solving play, (talk for writing) - writing for the audience ('doing' in play as a character, allowing for better understanding of mood/ context/ adjectival use etc – breadth of writing).

Ks2 - Evaluative writing – using taught constructs: 'when we, we could improve by ...', subordination, instructive, reasoning, critical understanding.

LOOSE PARTS IN LEARNING : SKILLS POTENTIAL – MATHEMATICAL SKILLS

ie: Construction (large and small scale), STEM challenges, provocations.

Key Early breadth of broad mathematics skills underpinning later understanding:

*Subitising (perceptual and conceptual), *conservation of number, *measurement, *estimation, *operations, *cardinality/* ordinality, *pattern, *shape, quantity discrimination, different representation of number etc.

Skills into KS1 and KS2 –PRACTICAL applications of taught mathematical knowledge, ie: ‘SEEING the maths in action being able to explain reasoning (applying vocabulary in an interesting, self-led context)

* Problem solving, *creating own maths problems in context based on maths understanding (Y6), *visuo-spatial awareness to support concrete maths conceptual understanding or taught items, *scaling up (factors), * ratios, *proportions, *measurement, *arithmetic etc...



*‘Currently, children are not always given access to the cardinal significance of counting until they have established the ability to recite the numbers, and this limits understanding that can emerge from learning to count. What teachers need to do is make understanding cardinality a central part of counting, and include many opportunities for children to create sets of a given number as well as count all of a set. This will, amongst other things, prepare them for the different addition situations of $3+4=?$ and $3+?=7$.
‘(Trundley 2015)*



REFLECT!

Think being able to ride a bike – You could read all you like about it, look at pictures, be told etc, but this is single level understanding - (no real application linking to personal experience).



You can't possibly appreciate nor begin to explain in depth or apply your knowledge fully until you do this yourself - feel the proprioceptive forces needed for exertion for it to move, balance required, force to stop, effect of momentum, incline etc and the overall extra sensory experiences through self-led practical play (wind in hair, sights whizzing by vestibular input of bumps in road, legs burning (!)), as well as the sense of personal autonomy over the process (cause and effect), interest, risk (getting faster/ turning/ objects in path etc) and resilience to keep trying and get back up...

Think about bike riding having done it vs not tried practically and then in the context of being asked to apply understanding or knowledge to mathematical concepts and problems, as well as writing about it (greater breadth, depth, engagement, self-led learning and investment – grater motivation).



BRAIN HIERARCHY

Not fully developed until 23y)

FRONTAL LOBE

- *Abstract Thinking
- *Problem Solving
- *Reasoning
- *Executive Functioning
- *Organizing
- *Motor Functions
- *Regulates Emotions
- *Expressive language

FUNCTIONS

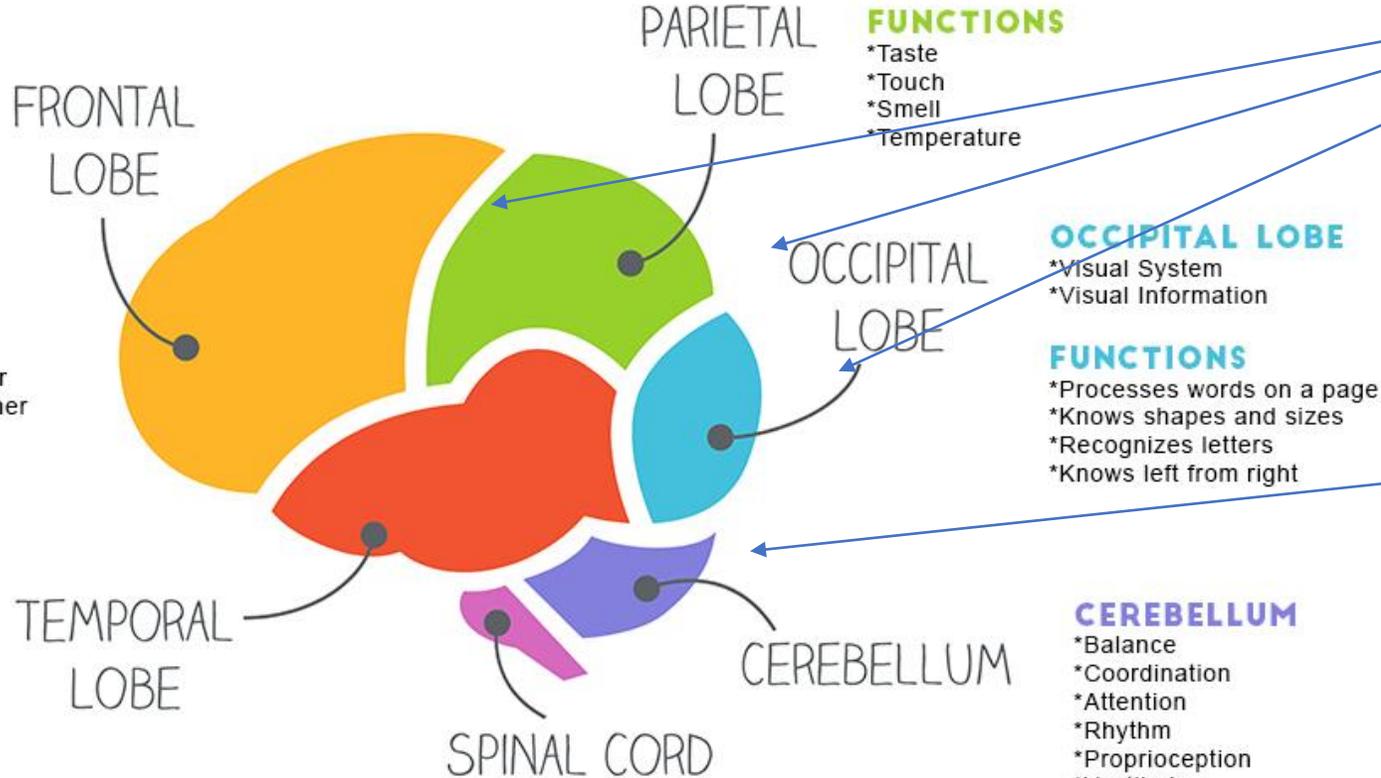
- *Organizes thoughts on paper
- *Remembers facts from teacher
- *Starts and completes tasks
- *Tells stories

TEMPORAL LOBE

- *Speech
- *Auditory Processing
- *Hearing
- *Behavior
- *Emotions
- *Short-Term memory
- *Long-term memory

FUNCTIONS

- *Processes what the teacher teaches
- *Fear
- *Fight or Flight
- *Retains Facts



PARIETAL LOBE

- *Sensory Information

FUNCTIONS

- *Taste
- *Touch
- *Smell
- *Temperature

OCCIPITAL LOBE

- *Visual System
- *Visual Information

FUNCTIONS

- *Processes words on a page
- *Knows shapes and sizes
- *Recognizes letters
- *Knows left from right

CEREBELLUM

- *Balance
- *Coordination
- *Attention
- *Rhythm
- *Proprioception
- *Vestibular

FUNCTIONS

- *Kick a ball
- *Throw a ball
- *Jump on one foot
- *Ride a bike



Hierarchy of the brain

levels: Without prior GM skills

(*Cerebellum*) through whole body play to stimulate both sides of the brain working together, lots of **practice for FM skills** in play with real-life object manipulation / visual stimulation (*occipital lobe*), masses of **sensory information** for the hands and feet in play (*Parietal lobe*), then EF skills of *Frontal lobe* area (expressive language, emotions, reasoning/organisation of thoughts & ideas cannot happen.

REFERENCE WEBLINK:

www.ilslearningcorner.com/2016-03-brain-hierarchy-when-your-childs-lower-brain-levels-are-weak-they-cant-learn

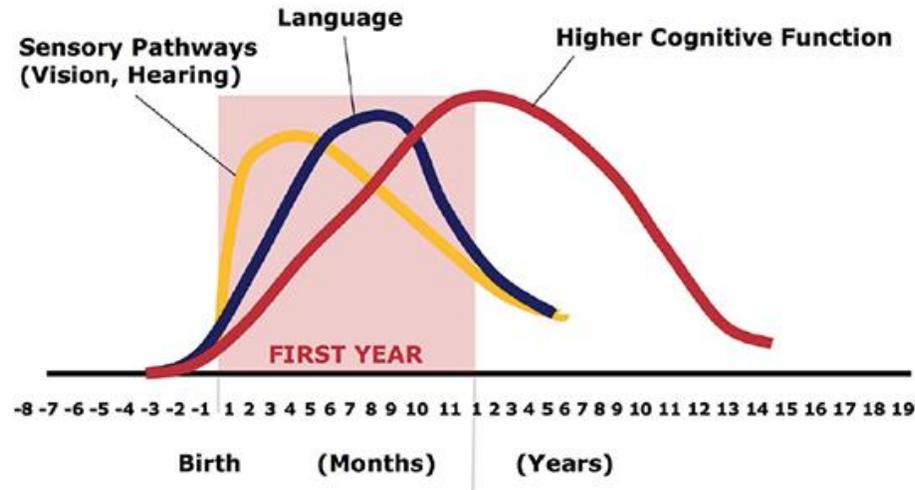


Empowering Early Years



BRAIN ACTIVITY AND SKILLS

Human Brain Development Neural Connections for Different Functions Develop Sequentially



- In the proliferation and pruning process (**Neural pruning – what we don't use or stimulate we lose**), simpler neural connections form first, followed by more complex circuits, timing is genetic, but early experiences (EPIGENETICS) determine whether the circuits are strong or weak. Source: C.A. Nelson (2000). Credit: Center on the Developing Child.
- **Neuroplasticity** – means brains are malleable but get less so as we get older, meaning takes longer to learn a language than when we are under 1... (<https://developingchild.harvard.edu/resources/inbrief-science-of-ecd/> Center on the Developing Child (2007). *The Science of Early Childhood Development (InBrief)*. Retrieved from www.developingchild.harvard.edu.)
- **Farah et al, 2012** Study showed that stimulating environments (alongside caring nurturing adults in their lives) aged 4 had a profound impact on a child's later brain and pre-frontal cortex as a teenager and often predicted this, esp for semantics, word and memory., <https://www.theguardian.com/science/2012/oct/14/childhood-stimulation-key-brain-development>.

BRAIN INFOGRAPHICS

Left brain

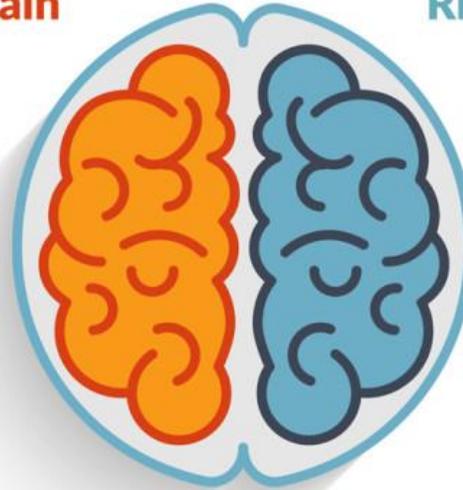
Right side of body control

- Number skills
- Math/Scientific skills
- Written language
- Spoken language
- Objectivity
- Analytical
- Logic
- Reasoning

Right brain

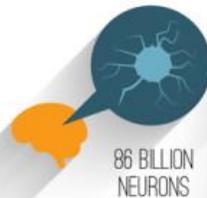
Left side of body control

- 3D shapes
- Music/Art awareness
- Intuition
- Creativity
- Imagination
- Subjectivity
- Synthesizing
- Emotion
- Face recognition



PARIETAL	Intelligence, language, reading, sensation
FRONTAL	Behaviour, intelligence, memory, movement
OCCIPITAL	Lobe, vision
TEMPORAL	Behaviour, hearing, speech, vision, memory
CEREBELLUM	Balance, coordination
BRAIN STEM	Blood pressure, breathing, heartbeat, swallowing

Amazing facts about the brain:



LOOSE PARTS: THE BASICS (AND MORE COMPLEX BITS)

THINK in planning engaging & inspiring provision and play opportunities for the children in your care, using loose parts....



WHAT?

WHY?

WHERE?

HOW?

- **What** am I using as loose parts in play?
- **Why** am I including them (in that area/ for that cohort/ to enable a **skill?**)
- **Where** am I placing these items in the environment (transport or not?)
- **How** am I displaying these items for use? (link to **TOOLS/ PROVOCATIONS** to support loose parts play inside and out).



THE IMPORTANCE OF THE LEARNING ENVIRONMENT:

‘Static, unchanging play spaces do little for children whereas environments which can be manipulated, where things move and can be moved open worlds of possibility. Children need environments they can manipulate and where they can invent, construct, evaluate and modify their own constructions and ideas through play.’

Ref: Play Wales -2017, (Loose Parts Toolkit, 2017)



- Think **Shared ownership** of the space and setting – autonomy, citizenship, shared values & respect.
- **Children aren't playing in "your space" – it is theirs** to be inspired by and engaged with everyday, as well as re-imagine, in order to enhance their own deep-level learning and early skills, through playful experiences

THE LEARNING
ENVIRONMENT AS A
UNIQUE AQUARIUM
TO THOSE LOOKING
IN.

“We value space, to create a handsome environment and its potential to inspire social, affective and cognitive learning. The space is an aquarium that mirrors the ideas and values of the people who live in it.”

- Loris Malaguzzi



WHAT ?

- What interests to the children have?
- What **skills** am I trying to enable in this area of provision?
- **Unique child** - any allergies to natural items?
- **Different ages** of children/ mixed cohort (small items)
- Seasonal
- **Contrasts for interest and engagement** (shape, size, colour etc)?
- Are items **opaque/reflective/shiny/change colour** when wet etc?
- **Items that can be manipulated and changed/ enhanced/grouped** as part of play (ie: windfall apples to make into apple juice/ cut up/ use as balls in tubes etc, toilet roll tubes – cut/ squashed/stuck together in many different ways.
- **What tools have I included** to support the loose parts in play – for mark making (brushes/ chinks/sticks etc)



Loose Parts Planning: Affordance Theory

(The 'What', 'Where' and 'How'? Of planning for loose parts provision).

- **Gibson (1979)** suggests environments and objects within them have values & meanings that are unique to the person perceiving them = 'Affordance theory.'
- The 'affordances' of an object or space are *all the things it has the potential to do or be* (ie: a stick is a wand, sword, writing tool, a bridge, a stick doll, a walking stick –anything!)
- Also, A brick wall may be built to make a clear boundary between a pavement & garden but for many children, it would offer a place to sit, walk along, balance, hide behind & jump off.
- Enabling environments – smooth rocks to *stand / sit* on, logs to *balance* on, trees with *branches* to climb etc...all the potential to use (afford a use) & manipulate in different, unique ways.
- **Bohling et al, 2010** – Affordance allows children to match material properties to their own behaviour.

How many different ways can you use logs to elicit different skills and uses in play?



WHY?

- **Why** am I adding these items?
- Based on **what skills** I want to build upon (or skills gaps)?
- Based on **child-led interests/ schemas**?
- Local abundance of an item (ie rocks/shells) ?
- Ie: If expanding on **measurement as maths concept** – *have I got items of differing sizes/ that I can manipulate* (ie sticks/ windfall apples) *in play for the children to expand their learning* (or do I always allow for this too?)
- Ie: For **talk opportunities/early vocabulary opportunities**– *have I got items which inspire chat – nice to touch, smell, see, unusual or very familiar etc...? Or which are linked from a story I have read (guided play opportunity?)*
- Ie: **PD skills** – *have I got heavy items to use to construct with, awkwardly shaped items or tiny items for FM skills or a mix of all of these to allow for the breadth of skills?*



FM skills – ie: *If I have sunflower seed heads, have I allowed tools to manipulate these and explore and learn and expand my investigations?*

WHERE?

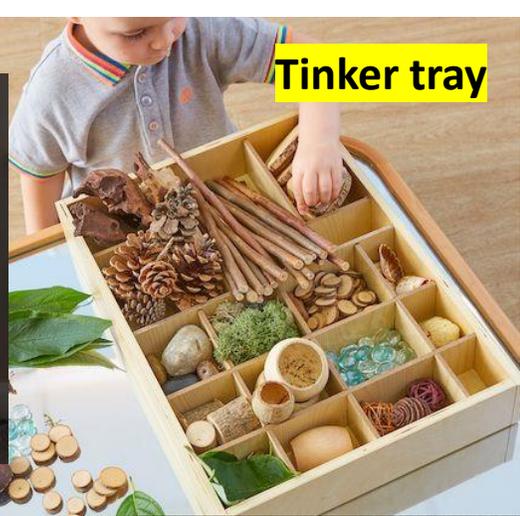
- **Where** have I placed the loose parts in the environment? (somewhere unusual?)
- **Ie: For PD skills**, are they placed *high/ low/child-height* shelving with *assorted levels, in containers requiring skills to get out / (lids/ tools to select) or team-work?*
- Am I allowing **transportation** of the loose parts – to encompass deeper level child-led play and if not, are the children aware of the limits and why (if safety)
- Are the **items outside or in** to allow for *different play types* (ie: outside often more risky, bigger, louder, more scope for PD and differing items than inside)



HOW?

- **How** have I displayed the loose-parts items? (Ie, are they colour/size/category-sorted/ displayed at differing heights etc?)
- **What containers** have I used (transparent/ non/ divided etc)
- Are they **displayed alongside a provocation** to provide inspiration (ie vase of flowers and selection of flower parts/ petals for playdough?).
- **Are the loose parts the provocation** – ie' presented in a pattern/construction?
- **For interest and additional PD/ Creative/ Mathematical skills - have I added levels, staging, mirrors, used natural light etc?**





Mirrors



Framing



Grouped



Provocation



Set-up



storage

Height



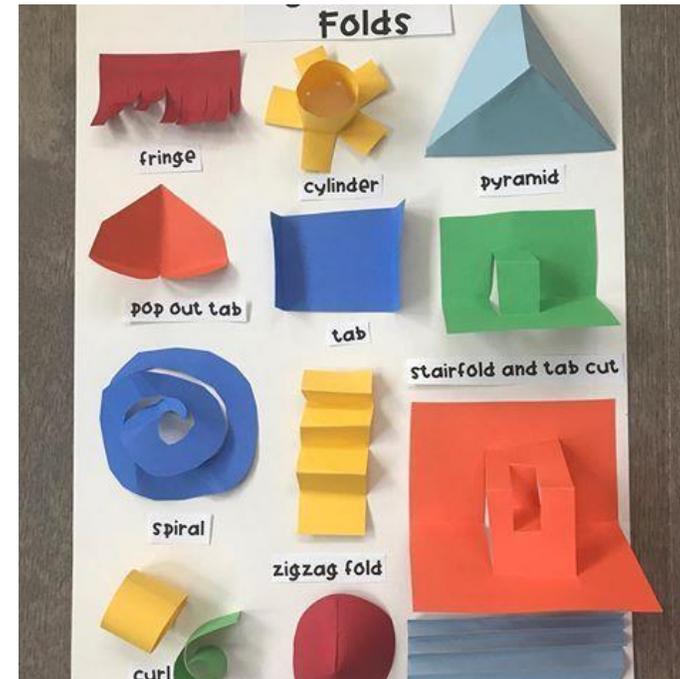
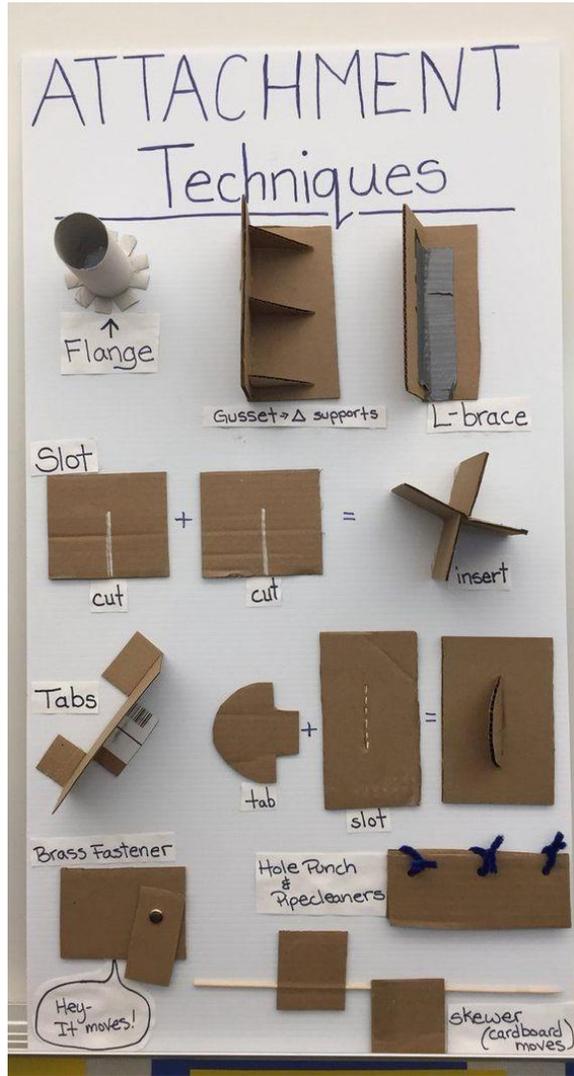
Different heights

HOW continued...

- Have I got a **large amount** of these Loose parts – to elicit mass play?
- Have I **modelled use of any items** (ie large scale loose parts and building at height, tearing , cutting) or discussed shared rules about transportation, eating etc?
- **Am I supporting play in this area and providing key vocabulary or challenges to support skills development / collaboration/ resilience etc in this instance or not?**



HOW? SUPPORTING ENHANCED PLAY – MODELLING SKILLS:



PLANNING FOR LOOSE PARTS:

- Provoke interest, engagement & passion, observe & reflect.
- Risk assess, develop cohesion in rules and sense of community.
- Assess engagement levels / engage in child-led interests and passions.
- Then, support, model & enhance skills development with higher level language, differentiated tools, growth mindset-type support, sense of responsibility and safety (what do you need to achieve what you want to do, can't do it YET), additional loose parts items etc.



Initial Audit of Space/ areas/ Provision:

Use observation/visuals/ space use (who by/Leuven scales of engagement, 2011 - www.plymouth.gov.uk/documents-ldtoolkitleuven.pdf), look at Transporting options for items, initial Risk Assessment to assess needs /modelling etc.

Existing: Resources, sourcing others (parents/charity shops etc), spaces available and storage.

Provoke, upcycle and grow with child-led interest, seasonality, projects the children are interested in.

Practice – Encouraging, supporting, modelling (Practical/ language), social skills of play, challenge, risk, enabling and engaging in passions / child-led learning opportunities (ITM).

Ongoing reflection – Review loose parts usage, transportation opps, tidying up (need visuals to support this?) Any First aid statistics changes (ie outdoor loose parts need more modelling, cohesion of practitioner messaging, adult support in area?), levels of engagement and child or cohort-led interests to feed into upcycling loose parts provision.



PLANNING FOR LOOSE PARTS: OUTDOOR : WHY DIFFERENT PLAY OPPORTUNITIES FOR LEARNING



Economies of Scale: Inside vs outside play.

- **Larger scale items/ unusual items** of interest – for construction/ play
- **Bigger set up** scale over greater area/ extended opportunities
- **Louder volume** generally accepted outside vs inside (greater collaboration / level of play/ different collaborative play ie superheroes etc).
- **Faster / speedy**– ie for set ups using tubes, can use bigger space to elicit greater angled speed and over distance.
- **Transport** of loose parts over greater distance (skills used to do this, ie pulleys/ wheelbarrows)

Risk taking:

- Economies of scale and outdoor opportunities allow for greater and different risks/ trial and error/ whole-body play/ greater physicality/ movement and team work.
- Opportunities for risky play using loose parts allow for developing skills of resilience, self-regulation, confidence and perseverance.
- Transport of larger items, construction using heavier items etc.



PLANNING FOR LOOSE PARTS OUTSIDE :

USE:

- **Natural resources** – abundance of natural loose parts for all types of play – from pretend play with sticks to simple maths with shells in the mud kitchen. Texture, size, shape, pattern etc!
- **Seasons**– adds a new engaging sensory dimension to loose parts play as a tool/ game changer/ to upcycle play.
- **Weather** - Think use of light and shadow/sunlight and colour – ie iridescence of copper tools or loose parts in outdoor water play), Rain – collecting rainwater/ sound elicited through rainfall/ cold weather – ice and frost, heat – melting mud and warming water etc
- **Geographic space** – hills/sectioned areas/ wide open green expanse etc, all allow for different play experiences, through changed depth perception, visual stimulation, properties of spaces (ie water running down a hill, shady areas and dens) etc.



"The more risks you allow children to take, the better they learn to take care of themselves. If you never let them take any risks, then I believe they become very prone to injury. Boys should be allowed to climb tall trees and walk along the tops of high walls and dive into the sea from high rocks... The same with girls. I like the type of child who takes risks. Better by far than the one who never does so."

ROALD DAHL

RISK & PLAY

**When you take a risk,
your brain changes.**

Do you remember climbing to the top of a tree? Or swinging as fast as you could until you felt like you might fall off? These risks are more than fun – they help brains develop. **Risky play combines fun and stress – turbo-charging brain development.**

It can be stressful to climb to the top of the tower if you haven't done it before but learning to handle that stress will make you more resilient under future pressures.

Risky play also develops your executive function, the parts of your brain in charge of decision-making. Deciding whether or not to jump off something tests the limits of your judgement. The only way to learn to make good decisions is by practicing making decisions.

Bumps and scrapes are the vivid feedback you need to improve your judgement. Thankfully, you'll get better and your brain will have developed from the experience.



RISK TAKING - Why is it important in play?

Open-ended play opportunities with Larger Scale Loose Parts in Setting Provision allow for:

- **Unique opportunities for Brain building – GM skills.**
- **Pushing physical limits**, sense of safety and self awareness/ developing *independence*
- **Perseverance, Resilience, Confidence skills** – okay to FAIL (link to Growth Mindset idea).
- **Autonomy** –awareness of self and also rules (Citizenship of setting/ school, valued member)
- **Exploration of boundaries** (physical and mental perceptions as well as skills support needed?)
- **Creative** – problem solving opportunities, open-ended, freedom of expression, exploration, imagination
- **PSED** – Social skills, support, negotiation, team work, support, friendships, shared goals, success.
- **Inclusivity: Defy stereotypes**, ie that girls are risk averse or just ‘clever’/ ‘pretty’, thus fixed mindset and fail to practice skills to cope with failures or even perceived failure – essential for life, relationships, academic and work success.

(Key refs: Sandsetter, (2007), Stephenson (2003), Stan and Humberson (2011) and Little, (2010))



LOOSE PARTS EXAMPLE ONGOING CHALLENGES:

LOOSE PARTS LAB: Large scale loose parts (Outdoor, also be indoor with smaller items)

Tyres, crates, spools, cable reels, tubes, piping, planks, logs, ladders etc.

Mathematics/ STEM challenges, SLC, PSED – processes, measurement, problem solving.

Construction – design, collaboration, innovation, challenges, risk, perception (think height, angles, levels etc)

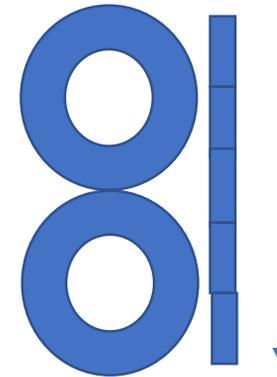
Examples: Mathematics skills

* Y6 Maths SAT Q one year around matchsticks and bottle tops – thus opportunities to explore maths concepts and come up with problems on a new level (not just written) ideal for BREADTH and DEPTH

* **Visuo-spatial awareness, verbal reasoning and ratios:**

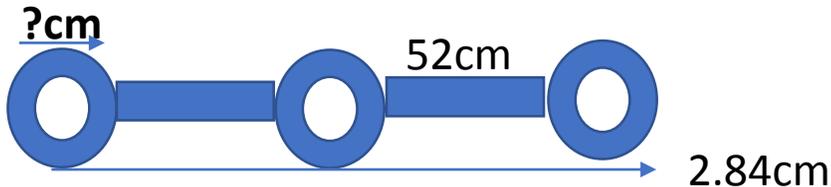
2 tyres : 5 planks of wood = same length put together (can visually see and DO)

So, if had **30 tyres : how many planks ?**



* **Measurement & calculating length/ Factors** – ‘seeing’ the maths with tyres and planks:

Calculating distance/ could add in factors and scale up too – added challenge.



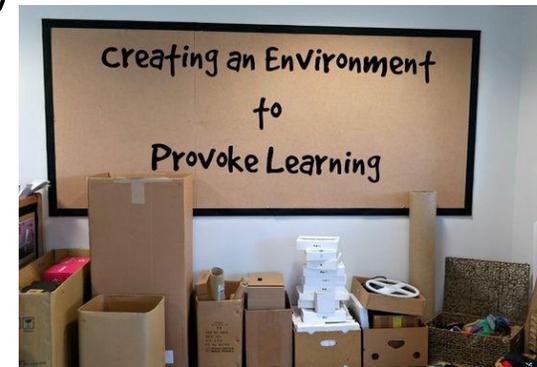
LOOSE PARTS LAB: ROLE PLAY (in or out)

Boxes, materials, pegs, tubes, clothing, wheels, guttering, containers

- Deconstructed in/out (design, prompts for talk, innovation – SLC, Talk4writing, Storytelling, STEM). Boxes, materials, pegs, tubes, clothing.
- Link to any sensory play – weather, water, sand, mud, processes.
- Larger scale vs Smaller scale role play (Provocations)

Example: Literacy - Writing

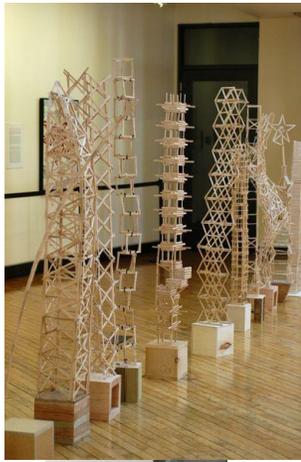
- le: KS1 Role play – large scale loose parts (boxes, blocks, materials) –History learning about 1st lunar landing.
- Challenged to make the Lunar lander– children worked together with open ended loose parts, creating characters, designing, talking about the project, using key language, PSED etc & then wrote about what they did – using key language and imagination, as well as key facts they'd learnt.
- Highly engaged, collaborative, enthused and highly quality play which allowed for opportunity to use language they knew, new language, explore concepts they'd learnt about, but also within their own play context which wasn't a specified outcome (process over product)



LOOSE PARTS LAB: Construction & design ('block' play & enhancements) In or out.

Blocks, lego, tubes, cotton reels, bricks, lolly sticks etc.

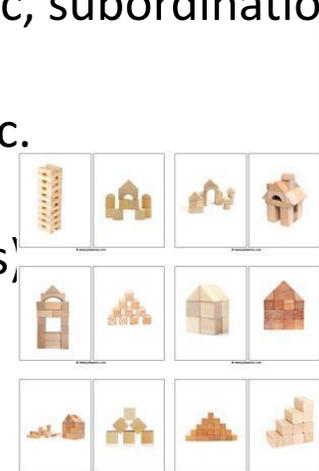
- Mathematics, PSED, SLC
- Upcycled items – ways of attaching (including playdoh etc.), added dimensions – chalk painted, mirrors, shapes, levels etc to explore 3D,



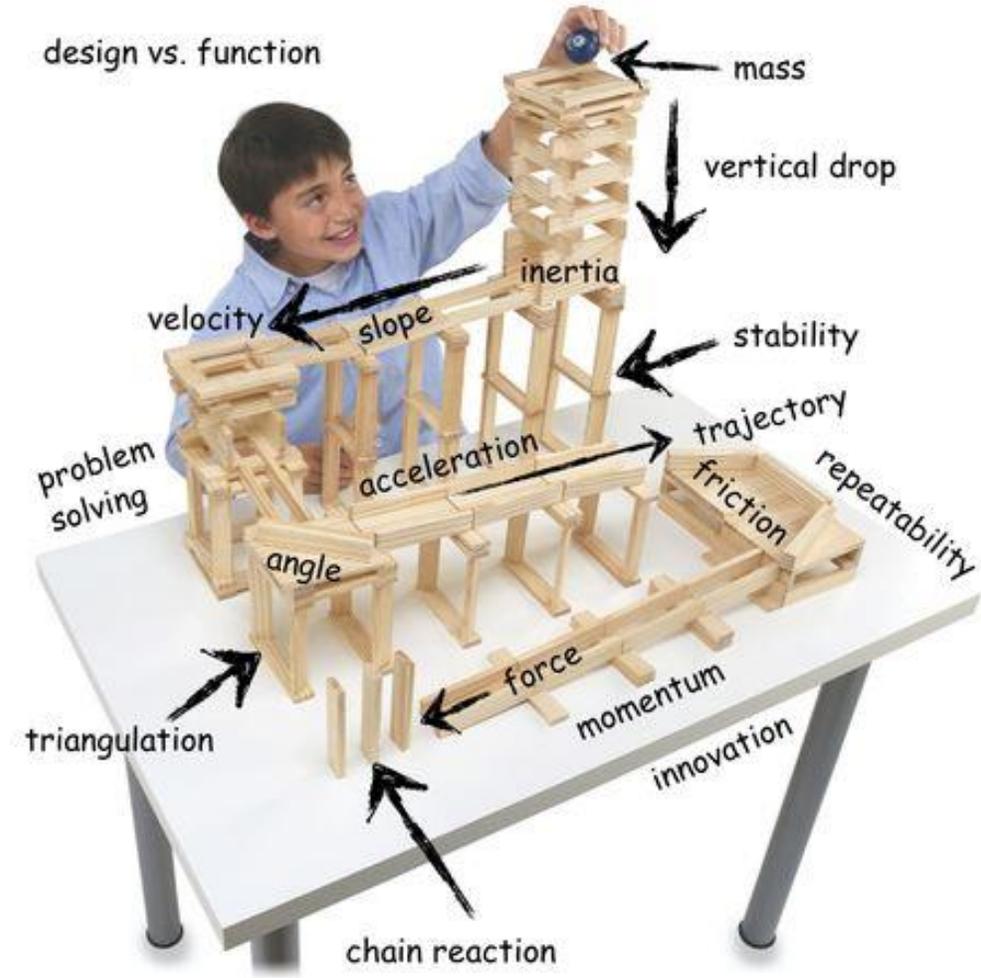
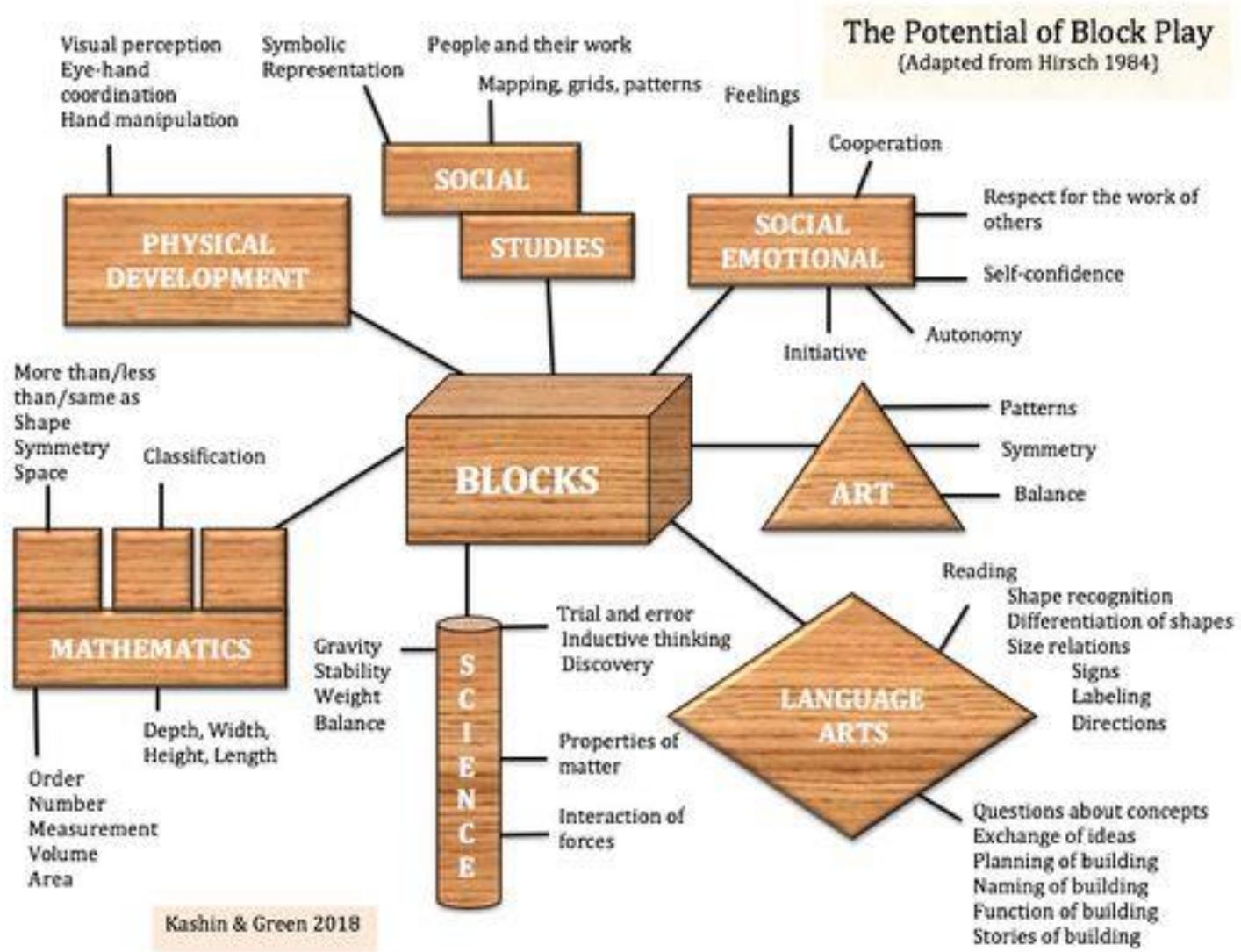
Example: Mathematics and Writing

With block play or creative components (tubes/ rolls/reels etc)

- STEM Challenges to design, construct and evaluate design successes, using blocks, cotton reel and lolly sticks etc...challenge of balance, transporting, height, replication, innovation, speed and momentum (add in water or chutes)
- Opportunity for Hypothetical writing – modal verbs, upon reflection I would/ could etc, subordination
- Instructional writing.
- Additional scope to explore how creation looks in mirror image/height comparison etc.
- Mark making through design and calculations (maths skills and could be based on one key piece of mathematical understanding, ie weight differentials, material properties)



(The awesome-ness of Block play!)



LOOSE PARTS LAB: Tinkering, Creativity, Pattern & design

Beads, buttons, glass nuggets, counters, cotton reels, natural items (seeds, pinecones, shells etc)

- * Smaller scale loose parts - design, pattern, creativity, 'making' etc.
- * Provocations – visual/ unusual
- * Process over product.
- * Open ended access to loose parts items to 'create'.
- * Enhancements – modelling methods for attaching items/ tools, areas to developing ideas MM everywhere (labels etc), documenting builds etc, mirrors, unique surfaces (vertical, suspended etc).



Example: Mathematics in Creative loose parts (ie glass beads, buttons etc)

Exploration of repeating patterns, sequencing etc using small scale loose parts.
Challenge to create patterns...can link to patterns in nature, numbers, coding etc...
Upcycle to challenge a friend to complete the pattern and visually see the gaps...mathematical language scope and collaboration, explanation of understanding.



STORAGE OPTIONS:



Practice skills – cooking, gardening, sewing with support, modelling and language/ interaction

Draw, play with sticks, wave wands/use brushes with water to paint outside/ cotton buds (household or recycled items to mark make anywhere!

Playdough – easy to make and strengthen fingers

Take shoes off outside and in, esp for young children – to develop muscle strength etc

Help with chores – wash up, lay table/ fold clothes etc – model and age-appropriate tools etc/ tasks.

Autonomy for self care tasks – brush hair/ teeth/ get dressed/ shoes and coats on etc (Model if need but don't do)

Working with parents and carers to support FM skill development alongside communication skills

Build block towers/play games – (or make them) Jenga/dominoes/tiddlywinks/jigsaws/ table football etc.

Talk together A LOT whilst doing things! Sing, chat, tell jokes, stories, laugh and have conversations to practice skills

Encourage creativity where you can – musical instruments, construction (lego etc), crafting etc.

Read together – or for pre-readers they choose/ turn pages/ lift flaps etc with you & give them your full attention.

PLAY to strengthen arms, muscles and bodies...to aid fine motor movement.

Be outside for free body movement, visual stimulation – challenge by going up slopes/ uneven ground etc for feet muscles etc.

Use recycled items for crafting/ creations – FM skills of sticking, tearing, cutting,

Less tech & screen time for eyes/ fingers and communication skills – get out and play!

Sample Lists of loose parts

Manufactured	Natural	Location/ Season dependent
Recycled tyres/ steering wheels	Stones	Sea shells
Pallets/ trellis	Stumps/ tree circles	Beach rocks
Wood or plastic crates	Logs/ planks	Driftwood buckets
Buckets, tubs, laundry baskets	Large branches	Haybales
Plastic garden pots	Small Twigs/ big sticks	Troughs
Boxes	Sand	Old Street signs
Gutters	Gravel	Traffic cones
Drain Tile	Water	Car Parts
PVC Pipe	Leaves	Pebbles, Pine cones
Rope	Flowers/ petals	Churns
Chain	Seeds/ seed heads	
Cardboard rolls/ tubes	Bark	
Wooden reels	Moss	
Plastic bottles	Grasses	
Landscape Netting		
Containers/ tubs/pots etc.		
Fabric		
Tarps		
Mesh		
Hoops		
Bricks		
Chalk		
Bin Lids		
Life jackets/hats etc		

Ref: **Hauser et al, 2016 - Table 2., p793**, AIMS Public Health Volume 3, Issue 4, 781-799. Cited from Neill P (2013) Open-Ended Materials Belong Outside Too! High scope 27: 1-8.

THANK YOU!

Questions

Key pointers to remember!



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- Resourcing and enhancements to activity/ playful learning.
- Interest led/ skills-led in planning with loose parts.
- Observation of learning (start small and with this!) It's not always what's expected- freedom to move, experiment, learn in unique ways allows you to effectively plan and engage/ motivate the children in their own learning
- Time and open-ended ness in activity (allows for differentiated need), alongside any key factors to develop aspects of learning.
- Reflection in activity and on activity to assess needs, interests, provocations.
- Look to model skills, language, key aspects of learning within that play – or even through documentation with the children.
- Documentation of learning – use the process to enable depth with skills learnt and practised.
- Provocations to provoke talk, interest, learning – as part of loose parts challenges or not.
- Cost effective.
- Always include Mark Making opportunities to enhance the challenge...labelling, instructions, charts, designing, drawing, reporting, story-writing etc.
- PROCESS OVER PRODUCT.
- BREADTH AND DEPTH OF LEARNING.
- LOOSE PARTS are a phenomenal way to enhance learning across all topics and key areas.

