

### NEUROSCIENCE AND PLAY-BASED LEARNING

Liu, Solis, Jensen, et al., 2017, The Lego Foundation

### Play is **JOYFUL**

Emotions are integral to neural networks responsible for learning.

Joy is associated with increased dopamine levels in the brain's reward system linked to enhanced memory, attention, mental shifting, creativity, and motivation.

### Play is **ITERATIVE (REPETITIVE)**

Perseverance associated with iterative thinking is linked to reward and memory networks that underpin learning. Iteration increasingly engages networks related to taking alternative perspectives, flexible thinking, and creativity.

#### Play is **SOCIAL**

Positive caregiver-child interactions help build the neural foundations for developing healthy emotional regulation and protecting from learning barriers, such as stress.

Social interaction activates brain networks related to detecting the mental states of others, which can be critical for teaching and learning interactions.

### Play is **ACTIVE**

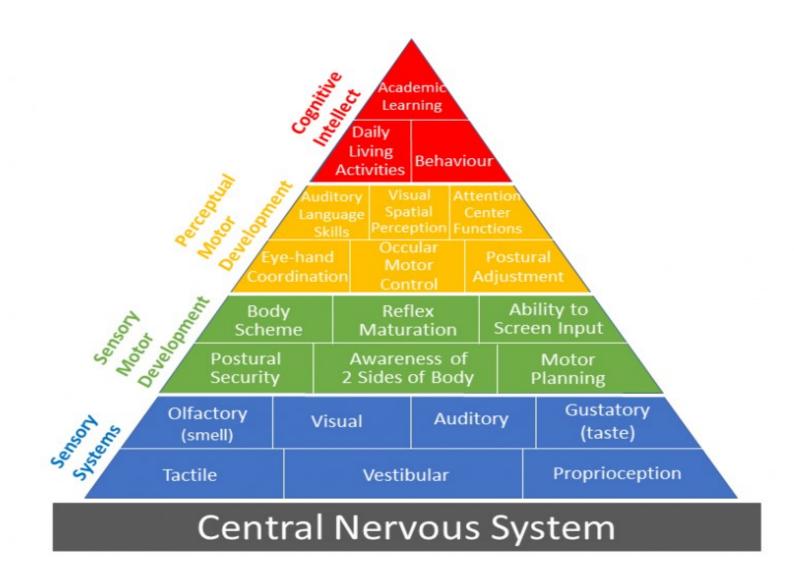
Active engagement enhances memory encoding and retrieval processes that support learning.

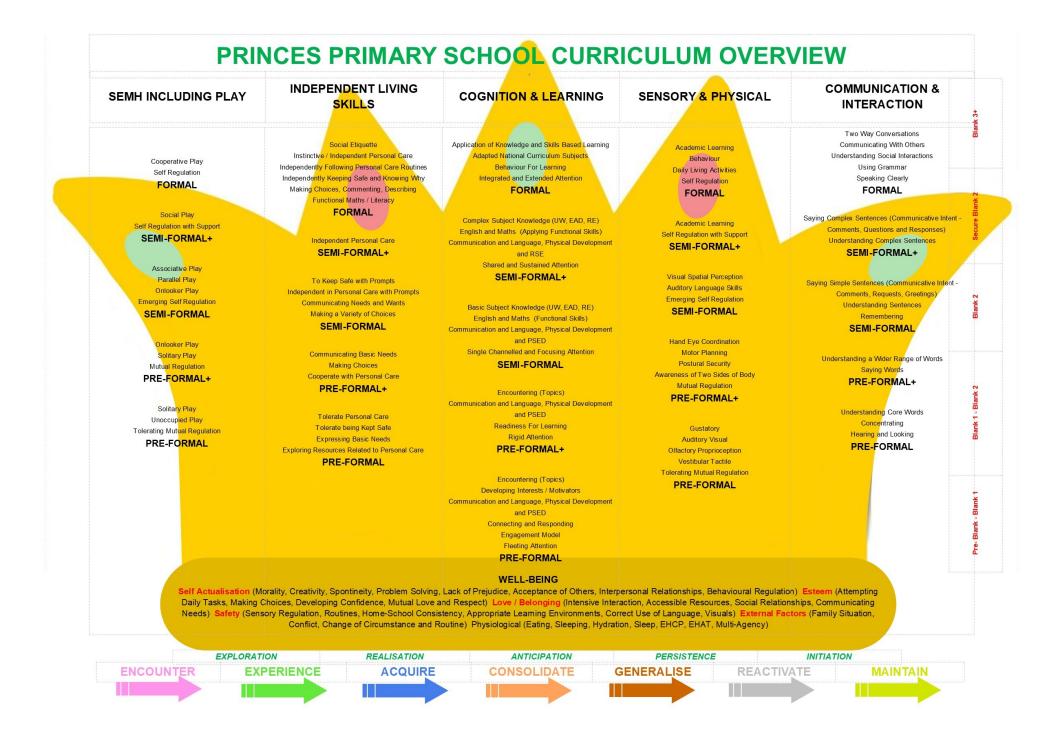
Full engagement in an activity allows the brain to exercise networks responsive for executive control.

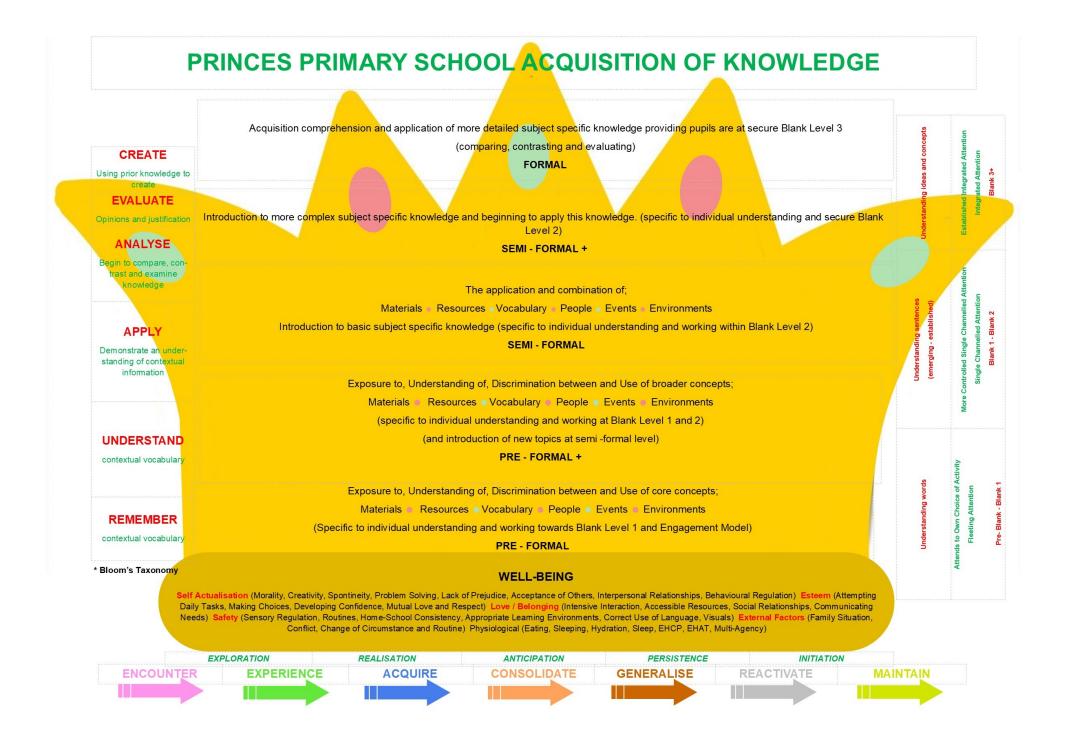
### Play is **MEANINGFUL**

Meaningful experiences introduce novel stimuli linking to existing mental frameworks. Processing these stimuli recruits networks in the brain associated with analogical thinking, memory, transfer, meta cognition, creating insight, motivation, and reward.

# **PYRAMID OF LEARNING**









# **VISION & VALUES**

### "Relish the Moment"

Robert J Hastings

#### We would like children

- to become aware of their strengths and appreciate the value of those strengths
- to value themselves and others for who they are
- to know how to motivate themselves and become self-motivated, independent learners
- to feel inspired and have the strength to realise their dreams

#### We would like educators

- to always remember the profoundly important role they play in children's lives
- to keep their purpose, their mission and their enthusiasm alive
- to keep reminding themselves of the reason they became educators in the first place
- to find joy and excitement in discovering new ways in which children learn
- to keep in mind the crucial importance of taking good care of their minds, bodies and souls

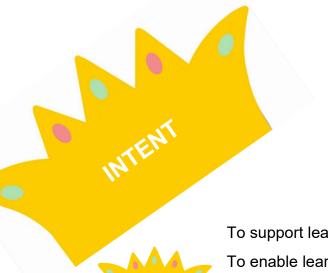
#### We would like to ensure parents

- feel supported in the most important job of all bringing up their children
- understand and appreciate the uniqueness of every child
- become aware of the fine distinction between truly supporting their children and forcefully motivating them
- find out more about the way they learn and discover the distinction between their own way of learning and that of their child

#### We would like governors to

- hold the children close to your heart
- remember that you are key to the effectiveness of our school
- find the time to get to know us all

"When we are dreaming alone it is only a dream. When we are dreaming with others, it is the beginning of reality."







To support learners to develop communication strategies so that they have a voice.

To enable learners to live safe, healthy and happy lives, promoting physical development and movement range.

To enable learners to be valued and active members of their community, interacting and building positive relationships with others.



To be successful learners who enjoy and contribute to their own learning and make progress and achieve.

To develop confident individuals who are able to live safe, healthy and fulfilling lives.

To develop responsible citizens who make a positive contribution to society.



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# PRE-FORMAL FOCUS FOR LEARNING

In addition to the EHCP areas of need (Communication and Interaction / Cognition and Learning / Social, Emotional and Mental Health / Physical and Sensory Needs / Independence Skills), Princes bespoke frameworks along with the developmental stages of the MSLD EYFS framework will be used to support understanding of pathways and progression.



Connecting and responding to key people and familiar activities - e.g. object permanence, Attention Autism, SCERTS, encountering / experiential, Intensive Interaction, building relationships.



Making sense of the environments and world around them - routine, objects of reference, transitions, classroom environment, educational visits, recognising their impact on the environment e.g. cause and effect.



Developing varied interests and motivators - flexibility of thought, experiential learning.



Readiness for learning - emotional regulation, sensory regulation, routines, relationships (adults and peers).

# PRE-FORMAL+ FOCUS FOR LEARNING

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Reciprocal interactions with key people and sustained attention with a breadth of familiar activities



Familiarity with a range of environments and routines eg now/next, transitions with more symbolic understanding



Introduction and exposure to simple concepts across the 7 areas of learning including basic maths and literacy skills.



Readiness for learning - emotional regulation, sensory regulation, routines, relationships (adults and peers).

# SEMI-FORMAL FOCUS FOR LEARNING

In addition to the EHCP areas of need (Communication and Interaction / Cognition and Learning / Social, Emotional and Mental Health / Physical and Sensory Needs / Independence Skills), Princes bespoke frameworks along with the developmental stages of the MSLD EYFS framework will be used to support understanding of pathways and progression.



Reciprocal social interactions with familiar and unfamiliar people. Developing and managing strong relationships with peers and adults.



Interacting with the wider environment and world around them



Readiness for learning - emotional regulation, sensory regulation, routines, relationships (adults and peers).



Building up skills and learning across the 7 areas of learning working up to the Early Learning Goals including functional life skills with a focus on Literacy and Maths. Experiential learning with exposure to new topics in line with Blank Level 1 and 2 concepts.

# SEMI-FORMAL+ FOCUS FOR LEARNING

In addition to the EHCP areas of need (Communication and Interaction / Cognition and Learning / Social, Emotional and Mental Health / Physical and Sensory Needs / Independence Skills), Princes bespoke frameworks along with the developmental stages of the MSLD EYFS framework will be used to support understanding of pathways and progression.



Reciprocal social interactions with familiar and unfamiliar people. Developing and managing strong relationships with peers and adults.



Interacting with the wider environment and world around them



Readiness for learning - emotional regulation, sensory regulation, routines, relationships (adults and peers).



Working consistently at Early Learning Goals across the 7 areas of learning and accessing initial elements of specific subjects (for areas of strength) across National Curriculum Key Stage 1. Experiential learning with exposure to new topics in line with Blank Level 1 and 2 concepts.

# FORMAL FOCUS FOR LEARNING

In addition to the EHCP areas of need (Communication and Interaction / Cognition and Learning / Social, Emotional and Mental Health / Physical and Sensory Needs / Independence Skills), Princes bespoke frameworks along with the developmental stages of the MSLD EYFS framework will be used to support under-



Investigating and interacting with the wider world around them.



Key Stage 1 National Curriculum standards, pre Key Stage Standards - English and Maths.



Knowledge and skills based learning including all subject areas in line with Blank Level 3 and above.



Generalisation and mastery of skills consistently.



Behaviour for learning - emotional regulation, sensory regulation, routines, social relationships (adults and peers), confidence, resilience and determination (SCERTS).

## EVIDENCE BASED RESEARCH INFORMING INTENT



Maslow's Hierarchy of Needs - Abraham Maslow 1954



The Pyramid of Learning - Williams and Shellenberger 1996



Blank Level Questioning - Blank, Rose and Berlin 1978, PECS - Bond and Frost 1985; SCERTS - Prizant, Wetherby, Rubin, Laurent and Rydell 2006, Intensive Interaction - Dave Hewitt 1988; Attention Autism - Gina Davies 2013, Developing Attention Levels - Cooper, Moodley and Reynell 1978



Venturing into Play - Caroline Smith 2015



The Rochford Review - Diane Rochford 2015-2019 Ofsted Inspection Framework 2019 Bloom's Taxonomy - Benjamin Bloom 1956 Buckley et al., 1996 Clarke, P.J. et al. (2010)



### **ENGAGEMENT MODEL**

Engagement Model is statutory for pre subject specific learning. The five areas (exploration, realisation, anticipation, persistence and initiation) support pupils' engagement in developing new skills, knowledge and concepts in the school's curriculum by demonstrating how pupils are achieving specific outcomes. They represent what is necessary for pupils to fully engage in their learning and reach their full potential.

See definition within impact section.

# WHOLE SCHOOL APPROACH TO LEARNING

Our curriculum approach is personalised and incorporates a range of strategies which are consistent across the school. We acknowledge the Pyramid of Learning, which informs teaching approaches at any given point across the day and recognise that pupils on any pathway can fluctuate through the day.

Pupil's pathway progression will be individual and may cross different pathways for different subjects depending on personal strengths and interests, which will be effectively demonstrated through bespoke frameworks.

The curriculum at Princes is flexible and will adapt and change in line with future evidence based research and government guidelines.

Both child and adult led themes will be used to provide breadth of experience. Staff will ensure that engagement indicators are prevalent throughout the curriculum and any teaching and learning.

Relevant learning contexts will be provided in order to prepare for high school.

Emphasis will be on processes, rather than outcomes.

Enrichment days / weeks will be utilised to enhance the learning experiences of the children

Class staff will work closely with the DSL/Pastoral Lead - Safeguard, EHATS, Early Interventions, attendance monitoring etc

A multi agency approach (including physiotherapy, OT, SALT, CAMHS)

Community Links; Outdoor Learning including Forest Schools; Enterprise; Sports Provision (LFC, EITC, Little Musketeers etc); MSLD music festival; School Council



- Communication and Attention
- PSED
- Physical Development including swimming
- Play
- British Values and SMSC
- RE
- **Experience based learning** (covering English, Maths, Expressive Arts and Design and Understanding the World and MFL KS2 only)
- Engagement Model

## CURRICULUM AREAS



- Communication and Attention
- PSED
- Physical Development including swimming
- Play
- British Values and SMSC
- RE
- Emerging English
- Emerging Mathematics
- **Experience based learning** (covering Expressive Arts and Design and Understanding the World and MFL KS2 only
- Engagement Model



- Communication and Attention
- PSED
- Physical Development including swimming
- Mathematics (linked to functional life skills)
- English (linked to functional life skills)
- Play
- British Values and SMSC
- RE
- Expressive Arts and Design
- Understanding the World
- Modern Foreign Languages (KS2 only)

## CURRICULUM AREAS



- Language and Communication
- PSED
- Physical Development including swimming
- **Mathematics** (linked to functional life skills)
- English (linked to functional life skills)
- Play
- British Values and SMSC
- RE
- Expressive Arts and Design
- Understanding the World
- Modern Foreign Languages (KS2 only)
- Emerging subject specific knowledge linked to National Curriculum subjects.



## CURRICULUM AREAS



- Language and Communication
- PSHE
- **Physical Education including swimming** (Including up to Key Stage 2 National Curriculum)
- Mathematics (Pre Key Stage Standards) linked to functional skills
- English (Pre Key Stage Standards) linked to functional skills
- Knowledge based learning Key Stage 1 National Curriculum Standards - Science, Computing, History, Geography, Music, Art & Design, Design and Technology, MFL - KS2 only)
- **Play** (Cooperative Play successfully entering into play with another child: play has an organized structure, will communicate with others, will express ideas for activities, acknowledges actions and accomplishments, negotiates roles and sets up events, will respect other chil-

### Problem Solving & Creative Thinking

**Responsibility for own learning** - self evaluations (IEPS and work), creating own IEPs

RE

**British Values / SMSC** 



## **EVALUATING PROGRESS**

Earwig Frameworks - Bespoke frameworks, EHCP, SCERTS, EYFS leading into National Curriculum Standards, Intensive Interaction, British Values and SMSC. Some frameworks are not currently on Earwig but are used to support progression such as swimming.

Lateral Progress as well as linear progress which is demonstrated on Earwig.

Encounter - Fleeting reactions to activities and stimuli.

**Experience** - Sustained and extended reactions to activities and stimuli. Higher levels of purposeful engagement with activities and stimuli. Links to 7 indicators and aspects of engagement (see below in italics).

Engagement Model (Pre pre-key stage standards)

*Exploration* - This shows whether a pupil can build on their initial reaction to a new stimulus or activity, for example, whether they display more than an involuntary or startled reaction to the activity. Additionally, the pupil may be interested in and curious about the stimulus or activity, for example, they may notice it or reach out to it.

Exploration becomes more established when the pupil is still responsive to the same stimulus or activity when it is presented in different contexts or environments, for example, a different time of day, a different place or with different people.

Exploration is important in identifying which stimuli or activities interest the pupil and motivate them to pay attention and investigate them further, so that they can develop new knowledge and skills.

**Realisation** - This shows how the pupil interacts with a new stimulus or activity or discovers a new aspect of a familiar stimulus or activity. They will display behaviours that show they want more control of the stimulus or activity, for example by stopping it or trying to make changes to it. The pupil will often show what familiar adults consider to be 'surprise', 'excitement', 'delight', 'amazement' or 'fear'.

Realisation becomes more established when the pupil uses the newly developed skills or knowledge in new ways and in different contexts or environments. This is important as it can keep the pupil excited in their learning and prevents an activity from becoming routine.



## **EVALUATING PROGRESS**

Anticipation - This shows how much the pupil predicts, expects or associates a stimulus or activity with an event. They may anticipate that a familiar activity is about to start or finish by interpreting cues or prompts such as auditory (what they hear), tactile (what they feel) and visual (what they see).

Anticipation becomes more established when the pupil shows awareness that a familiar activity is about to start or finish, even when cues and prompts are reduced.

Anticipation is important in measuring the pupil's understanding of cause and effect, for example if they do this, then something will happen. This prepares the brain for learning and helps with the pupil's memory and sequencing.

*Persistence* - This shows whether the pupil can sustain their attention in a stimulus or activity for long enough that they can actively try to find out more and interact with it.

Persistence becomes more established when the pupil shows a determined effort to interact with the stimulus or activity. They will do this by showing intentional changes such as changes in their gaze, posture and hand movement.

Persistence is important so that the pupil maintains an activity long enough to develop and reinforce learning. It also helps the pupil apply their skills or knowledge so they can achieve their desired outcome.

*Initiation* - This shows how much, and the different ways, a pupil investigates a stimulus or activity in order to bring about a desired outcome. The pupil will act spontaneously and independently during a familiar activity without waiting for direction.

Initiation becomes more established when the pupil shows they understand how to create an impact on their environment in order to achieve a desired outcome.

Initiation is important to establish how well the pupil is developing independence, which is required for more advanced learning.



## **EVALUATING PROGRESS**

Acquisition Physical Prompt - gained new skills and responses with physical prompting.

Acquisition Gestural Prompt - gained new skills and responses with gestural prompting.

Acquisition Verbal Prompt - gained new skills and responses with verbal prompting.

Acquisition Independent - gained new skills and responses independently.

Consolidation - becoming more competent and fluent in skills and responses in familiar settings and with familiar and less familiar adults.

**Generalisation** - to have mastered response in different settings, contexts, materials, stimuli and with more unfamiliar people including adults and peers. Includes application of skills learnt in a variety of situations.

Reactivation - to regain a skill or response after an extended period of time if it has been lost or regressed.

Maintenance - to have secure and mastered skill after an extended period of time.



### **PUPIL PROGRESS**

### Pupil progress at Princes reflects the individual nature of all our pupils. Progress is always evaluated from their starting point and reflects their personal journey which works towards the National Curriculum.

Princes Primary does not use numerical data but will use case studies to reflect the pupils progress.

Rate of progress may vary across their school life and across subjects.

Priority areas will be bespoke to each pupil and will be reflected in the child's IEP (linked to EHCP and 12 monthly targets).

The format for annual reviews now incorporates opportunities to discuss the EHCP and amend to ensure that all targets and comments are relevant.

Annual reviews, end of year reports and individual progress meetings demonstrate progress over the academic year using qualitative data.

Internal moderation will focus on similar pupils assessment records in order to moderate baselines, rate of progress and target setting. Team discussions will be held to ensure all judgements are accurate and robust.

Pupils who are making less than expected progress will be identified and clarify the potential reasons behind this and introduce strategies to support.

As part of pupil progress moderation Quality Of Education team will look at evidence from the following identified groups including Pupil Premium, Free School Meals, CIN, LAC, EAL, Gender and Pathways.



## **EVALUATING IMPACT** & ACCOUNTABILITY

Our pupils are at the core of everything we do and therefore the bespoke curriculum ensures that they are treated as individuals and that we do not compare individual pupil's data.

The aim is to ensure that the well being of all pupils is at a consistently high level, including behaviour and attendance, which will then have a positive impact on all teaching and learning.

A coherent curriculum ensures that there is whole school consistency which supports effective teaching and learning.

Holistic progress of individual pupils is effectively recorded through Earwig.

QoE leads to monitor whole school progress, including particular cohorts (one page profiles / earwig evidence). QoE will regularly liaise with Behaviour and Attitudes and DSL/Pastoral leads.

Internal moderation through class groups, pathway groups (including mixed pathways), curriculum area groups and curriculum coordinators.

Annual reviews will be held to provide opportunities to feedback to parents, Local Authority and other professionals around EHCP outcomes.

Identifying appropriate CPD to support implementation of the curriculum.

Discussions with teachers over individual children's progress.

Reporting to appropriate stakeholders e.g. parents, governors, SMT.

Continue to liaise with other MSLD schools through curriculum groups and meetings.

Curriculum will be monitored and reviewed regularly by Quality of Education co-ordinators (Emma McCormick and Jodie Hudson), which will inform future plans and school development.