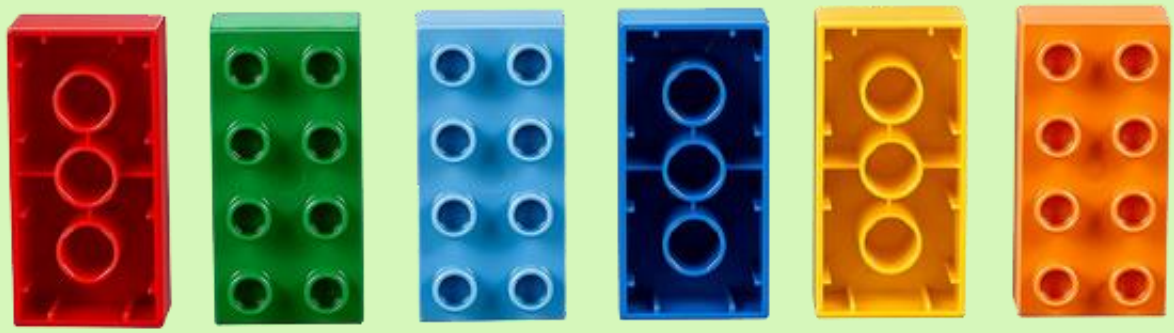


Online Training Course

TEACHER WORKBOOK

for

LEARNING THROUGH PLAY

with Six Bricks

Grade 1

Contents

UNIT ONE

Introduction

The ***Learning Through Play*** Initiative brings fun, creative learning into the classroom, enhancing and enriching the CAPS curriculum and livening up the teaching day with happy smiles & laughter from teachers and learners!

In this training course, we explore playful learning, facilitate discussions and co-create fun techniques & activities for teaching. It is hoped to encourage, support and enable teachers to positively impact learner performance by playing with concrete manipulatives, specifically *Six Bricks,* for this initiative.

We will be relying on your contribution and commitment to the workshop in order to implement the ***Learning Through Play*** ideas, to ensure that teaching and learning is lively, effective and has the possibility to transform educational outcomes.

This Course, Teacher Workbook and Activity Flip Cards aim to help you, the teacher, plan and integrate the *Six Bricks* tool and play-based learning into your daily teaching, ultimately to benefit both teacher & learner.

Each time you learn something new, unique possibilities you were not previously aware of open up before you and as a result, you are changed. This is knowledge. When you have knowledge, you no longer see things the way *they* are, but the way *you* are. This is the process of learning. The more you learn, the more you make new synaptic connections in your brain. In order to remember what you have learned, you have to maintain those connections by repetition, reviewing or reflecting upon that learning.

The fully functional Grade 1 classroom needs to provide an exciting environment in which to learn. The curriculum ensures that children acquire and apply knowledge and skills in ways that are meaningful to their own lives. This means promoting the idea of grounding knowledge in local contexts, while being sensitive to global imperatives.

Developing the critical foundations of learning - curiosity, creativity, self-regulation & playfulness - at an early age can be achieved through play. Fun-filled activities with the *Six Bricks* aim to support the addressing of these foundational developmental areas of the child and to encourage the acquisition of life-long learning skills such as executive function and breadth of skills.

UNIT TWO

Ideas for Playing & Learning with Games

Young children love to play games, especially ones that they themselves have created. Below are some challenges to entice the Gr 1 children to invent their own games using the Six Bricks. Each challenge uses different extra materials and there are strong links to Life Skills in the CAPS Curriculum.

Teacher's Prep:

- *Arrange for the children to sit in groups of 6. They each bring their set of Six Bricks and pool them.*
- *Explain the activity: In your group of 6, discuss and decide upon a fun group name; choose a group Leader.*
- *Teacher will explain the challenge & give the groups some time to create a game - play, explore, try, discuss, plan; design, build & test their game. Use the bricks in your group & the materials from your bag/basket.*
- *Each group will take turns to share their games with the other groups; ask each other questions.*

Play & Learn 1: Create a Game

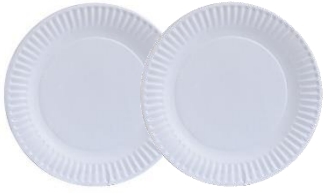
In your materials basket you need: *2 balloons, string or wool, Six Bricks*

- Use your combined bricks and the items in your bag to invent a children's game. Consider inclusivity in your game.
- Think of a name for your game.
- Write out a simple set of rules as to how the game is to be played.
- Play the game to demonstrate to the other groups.

Play & Learn 2: Create a Game

In your materials basket you need*: a bottle of bubbles; length of rope; paper plates; Six Bricks*

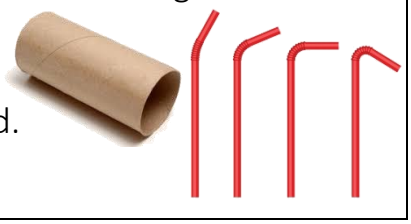
- Use your combined bricks and the items in your bag to invent a children's game. Consider inclusivity in your game.
- Think of a name for your game.
- Discuss a simple set of rules as to how the game is to be played.
- Play the game to demonstrate to the other groups.



Play & Learn 3: Create a Game

In your materials basket you need: *2 ping pong balls; a tennis ball; empty toilet rolls; some straws; Six Bricks*





- Use your combined bricks and the items in your bag to invent a children's game. Consider inclusivity in your game.
- Think of a name for your game.
- Discuss a simple set of rules as to how the game is to be played.
- Play the game to demonstrate to the other groups.

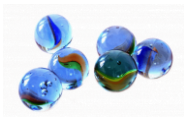
Play & Learn 4: Create a Game

In your materials basket you need: *length of elastic; ribbons; some bean bags; Six Bricks*

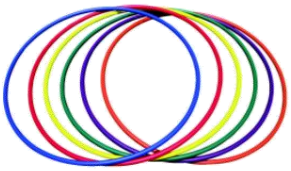

- Use your combined bricks and the items in your bag to invent a children's game. Consider inclusivity in your game.
- Think of a name for your game.
- Discuss a simple set of rules as to how the game is to be played.
- Play the game to demonstrate to the other groups.

Play & Learn 5: Create a Game

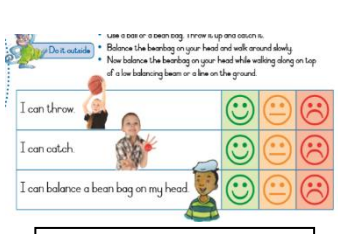
In your materials basket you need: *bag of marbles, hula hoop, ball, Six Bricks*



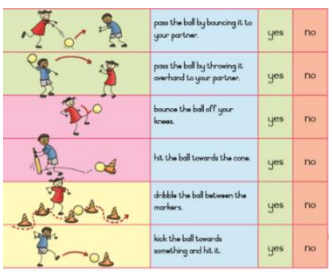
- Use your combined bricks and the items in your bag to invent a children's game. Consider inclusivity in your game.
- Think of a name for your game.
- Discuss a simple set of rules as to how the game is to be played.
- Play the game to demonstrate to the other groups.



DBE Workbook Link: Life Skills: Book 1: Page 43



DBE Workbook Link: Life Skills: Book 1: Page 14



DBE Workbook Link: Life Skills: Book 1: Page 39

Reflection Time

You have been required to PLAY in order to solve these challenges.

How did you feel?

_____

_____

_____

How did you go about completing these tasks?

_____

_____

_____

What did you find challenging?

_____

_____

What skills do you think children would be practising by doing challenges like these?

_____

_____

_____

What developmental areas could you assess during these challenges?

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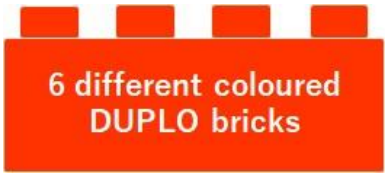
UNIT THREE

What is Six Bricks?

"Children must master the language of things before they can master the language of words".

Friedrich Froebel



The Six Bricks colours are:

- ✓ red, orange, yellow, green, dark blue, light blue
- ✓ different except for 2 shades of blue – light / dark
- ✓ all children receive same 6 colours = no fighting; allows for mixing of the bricks / working in groups; easy to collect own six colours

Six Bricks can be used for learning through play:

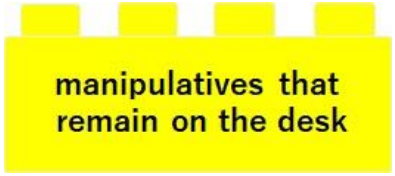
- ✓ Individually or with a partner/groups
- ✓ with a variety of ages
- ✓ as an assessment tool

Six Bricks Activities assists with:

- ✓ critical cognitive skills & caters for holistic development
- ✓ integrated activities designed to cover all learning areas and developmental skills
- ✓ development of executive functions of the brain - working memory; cognitive flexibility & inhibitory control: life-long learning skills

Six Bricks activities can be repeated in different ways, so children are never bored, even though they are repeating skills for consolidation & reinforcement:

- ✓ Six Bricks activities can take 2 - 5 mins. They are short, sharp & engaging activities that wake up the brain, but they should be done every day
- ✓ Children grow and develop at different rates – Six Bricks activities can be adapted to any child's level
- ✓ Six Bricks activities caters for different learning styles - visual; auditory; tactile learners



Six Bricks are:

- ✓ So easy to manage – children keep their Six Bricks on their own table or close by in a visible tub/container or chair bag.
- ✓ A concrete tool readily available to help solve problems

Six Bricks is:

- ✓ cost effective & an easy way to get manipulatives into the hands of every child in the classroom
- ✓ a means to experience colourful, fun, hands-on learning
- ✓ able to create a happy, positive vibe in the classroom which affects both children and teachers.

UNIT FOUR

Key Messages & Activities

1. Children learn best through PLAY

Children are naturally curious and motivated to learn all the time. It is up to us, as teachers, to provide them with the tools for learning, as well as a safe and happy environment in which this learning can take place.

Children learn best by doing. Play is the "work" of children. **No other activity in the child's life is as valuable as play for the purposes of learning.** The Gr 1 programme should incorporate playful learning opportunities. The fact that learners are talking and moving around does not mean that there is no discipline in that classroom. Explain & demonstrate to parents that play is invaluable & the best method to use when teaching young learners.

Through play, children develop their core learning skills:

- self-regulation
- creativity
- curiosity
- playfulness

The handling of concrete material is essential to the young child's concept development. Children need time to explore a variety of tools and activities that will assist them to develop their senses. The Play & Learn activities that you have just completed are a fine example to illustrate playful learning.

2. Learning through PLAY requires Planning

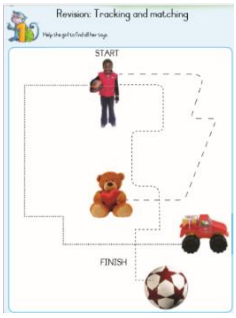
Take an active part in organising the play and learning activities – your input serves as a model for the learners. Quality play & imitation that results in learning does not happen accidentally – planning is key! Play should be guided by the teacher who needs to allow for child agency. Children are capable of initiating their own learning.

3. This is not extra work; it is nothing new

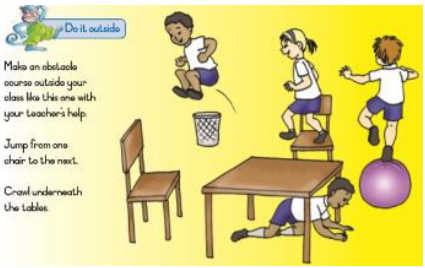
Six Bricks is a tool, either used to run short, quick activities that will **enhance** and **enrich** the CAPS curriculum and can be easily linked to the DBE workbooks, or longer activities to provide concrete understanding of certain concepts. The activities are play-based and also develop the child's sensory, physical, cognitive, social and emotional skills.

About Me: Discover the Brick - Reflection Time

- Think about how children will feel after having done some moving around with the bricks.
- What learning is taking place when children move?
- Where is the child agency in this activity? How does this *play* fit into your curriculum?



- Make a note of two quick playful movement activities in which each child uses just two bricks, that you could try out immediately in your classroom.
- Jot down some developmental skills that these activities could address.



4. Six Bricks Activities Integrate all Learning Subjects

Learning is not isolated. Playful learning encompasses all learning areas and integrates skills from Mathematics, Languages and Life Skills, and develops the life-long learning skills needed for growth and development into adulthood. Link your Six Bricks activities into your weekly themes & daily planning for an easy integration into all Subjects. Allow the learners to cube their Six Bricks and then to keep them on their desk so that they have quick access to this tool when needed.

Developmental Skills that the activities with Six Bricks will address:

- *Physical* – gross and fine motor: large and fine muscle control; body concept; motor planning; dominance; balance; laterality; proprioception; bilateral integration; cross the midline; hand-eye co-ordination
- *Perceptual* – visual; auditory; tactile discrimination & memory; visual & auditory analysis & synthesis; sequential memory; spatial relationships; foreground; background; visual closure

- *Speech & Language* - listening; language development; vocabulary; express through language; language construction; storytelling; writing & reading
- *Cognitive* – problem evaluating & solving; critical thinking; creativity; paying attention; remembering; interpreting; classifying; spatial reasoning; planning; mathematical concepts

- *Emotional & Social* – listening; self-image; control emotions; empathy; social interaction

These different areas of development cannot be isolated from each other. A developmentally appropriate curriculum ensures successful teaching & learning – knowing & being able to assess the Gr 1 learners in your class makes it possible to plan & present developmentally appropriate themes & activities.

Build Your News - Reflection Time

- Name some skills that are being integrated in this activity.

_____

_____

_____

- How would you manage an activity like this with a large class?

_____

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- Think about how you could assess the Learner's speaking, listening & pre-writing skills during this activity.

_____

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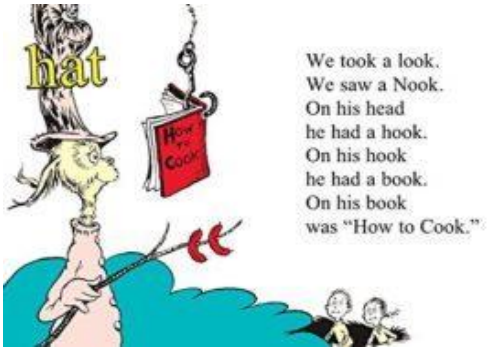
Think of a model building activity which links to your current theme. Make sure that it involves fun!

UNIT FIVE

5. Learners need to PLAY with Words

The young child in the Foundation Phase is led and moulded by his conversation with his teachers and the language they use. The teacher has to take the child's language level into account to be able to communicate effectively. Language is the main way we convey & think of ideas. When we play with words, we play with ideas. When you play with words, you discover the potential of language & your own potential to use language & to communicate. The child's whole education is rooted in his language education which largely shapes him into the person he will be, and so literacy is one of the most important aspects of any learning programme for young learners.



Spatial Positioning - Reflection Time

- Which developmental skill do you think is being targeted here?

_____

_____

- Which other skills are integrated into this activity?

_____

_____

- Was this boring or fun? Should the teacher worry about whether the child gets it right or wrong? How did you correct your own "mistakes"? How does this link to your curriculum?

_____

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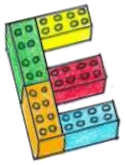
- Give an example of how you could use the Six Bricks to playfully practise some listening to & carrying out instructions, and as an aid to understanding and using prepositions.

Build Shapes, Letters & Numbers - Reflection Time



- What value do you see in allowing children to physically build letters/shapes/numbers?

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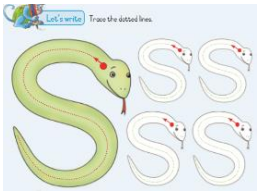
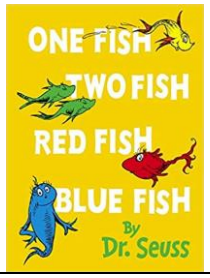
- Give an example of where you could integrate this exercise in your work this week.





Build a Friend - Reflection Time

- How can play be profitable for the development of language?

_____

_____

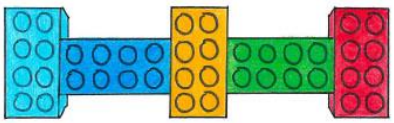
_____

- List some ideas where you could use Six Bricks and additional materials to tell, write and read stories.

6. Acquire Reading Skills through PLAY!

During PLAY and interaction with others, children make many language discoveries, and they learn critical problem-solving skills. These contribute to their ability to comprehend texts and read for meaning. By including play in teaching and learning, children are free to engage at their level and build on their own language discoveries. This provides the building blocks for becoming great readers in the future!

Fun with Patterning - Reflection Time



- Which skills do you think are being targeted with this activity?

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_____

- Explain how this activity allows the child to direct their own learning.

_____

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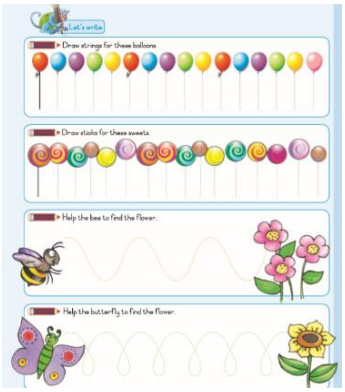
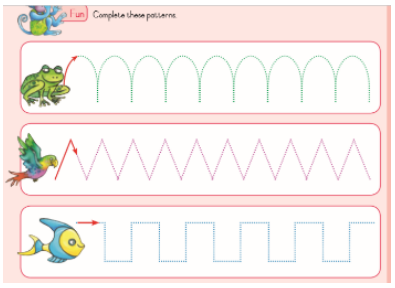
_____

List some other fun-filled ways to use the bricks for patterning activities.





7. PLAY! Move! Use your Whole Body to Learn!

The child's body is the starting point of all learning experiences. If a child has a poor image of their own body and cannot control their body well, they tend to experience learning difficulties later. Children who cannot participate in daily games with friends because they are too clumsy, or incapable of playing by the rules, will often be lonely and unhappy at school. The learner's body has to develop to a certain extent before he/she can manage certain tasks. It is vital therefore that the Gr 1 day should cater for opportunities to move. Physical Education is a part of Life Skills in the CAPS curriculum for the Foundation Phase and it is important for the well-being of each learner – it assists in preparing learners for life and its various possibilities within our rapidly changing society. Physical activity provides the ideal opportunity to get young learners involved, which will benefit them throughout their lives.

Freeze Dance & Simon Says - Reflection Time

- In what way do these activities benefit the children?

_____

_____

- How do these activities fit into your curriculum?

_____

_____

_____

- List some other favourite movement games that could be played with the Six Bricks.

8. Through PLAY, children develop Socio-Emotional Skills

Young children have to learn how to co-operate and take turns; socialisation does not happen by itself; it is acquired. The purpose of a social well-being curriculum is to present lessons & activities that will create opportunities to expose young learners to a range of knowledge, skills & attitudes that will strengthen their social development & awareness of healthy social relationships. It can be learned in the classroom when there is an interested, accepting & communicative teacher. Young children can move away from egocentric ways of thinking only if they interact with other children and experience the fact that other people have opinions & feelings too. Consistent boundaries promote healthy emotional development as they allow children to feel safe.

Colour Match & Sort - Reflection Time

- Explain how children could direct their own learning in this exercise. How will you encourage children to think for themselves?

_____

_____

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- When you observe children during this activity, what skills could you assess?

_____

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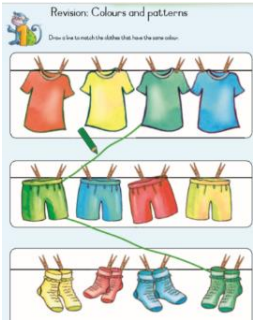
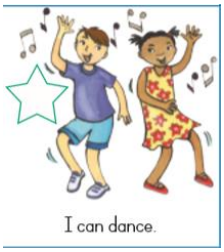
- Create a Six Bricks activity or game which will encourage children to work together. Consider how you will give children agency in this activity.





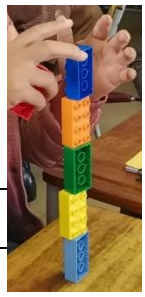
UNIT SIX

9. In Play, Executive Function is Developed

Executive function and self-regulation skills are the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully. These skills provide critical support for learning and development. We are born with the potential to develop them through interactions and practice.

The control of cognitive processes includes inhibitory control, working memory, reasoning, task/cognitive flexibility, and problem solving. Executive Function is the brain's ability to take in information, interpret this information and make decisions based on this information.

Tricky Tower - Reflection Time



- In what way does this activity help to develop executive function?

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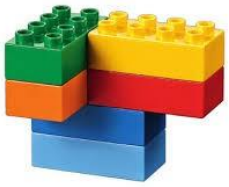
Think of other Tower Games to play.

Create “What’s in the Box?” Activities.

PLAY every day!



UNIT SEVEN

10. Perceptual Skills are critical for the whole Foundation Phase

Perceptual development is part of cognitive development and involves the accurate observation, organisation and interpretation of information gained from the senses to the brain. The process of perceptual development is very closely linked to motor development. Some aspects of perception are hardwired and start to manifest shortly after birth while others need to be taught or developed. The development of perceptual skills in young learners is vital in laying a foundation for all future development and learning.

From birth through to early childhood, children use their senses to explore and to try to make sense of the world around them. Children (& adults) learn best and retain information when they engage their senses. Think of how a smell can trigger flashback memories in your own life.

Sensory play is therefore critical to brain development – it builds nerve connections in the brain's pathways which can lead to the child's ability to complete more complex learning tasks and supports cognitive growth, language, motor skills, social interaction & problem-solving skills.

In Gr 1, we need to continue developing perceptual skills as they are a vital part of learning to read, write and do mathematics. You will notice throughout the training that in all the Six Bricks activities, no matter with what grade or topic we are dealing, there will always be some involvement of the perceptual skills.

The activities with Six Bricks enable this development in a fun and playful way, so that the learner need never be bored even though there is essential repetition. Use a quick Six Bricks activity to motivate the children to listen & to wake the brain up or use it to practise & perfect those perceptual skills!

Perceptual Skills for the Foundation Phase:

- *Visual Perception:* acquiring & interpreting information through the eyes – accurate visual perception enables the learner to read, write & do mathematics.
- *Visual Discrimination:* the ability to see similarities, differences and details of objects accurately. A learner must be able to see that there is a

difference between words such as **h**at and **b**at – there is a small visual difference between these two words but a big difference in meaning.

- *Visual Memory:* the ability to remember what the eyes have seen and the correct sequence in which things have been perceived – an important skill associated with the acquisition of reading.
- *Auditory Perception:* acquiring & interpreting information through the ears – accurate auditory perception enables the learner to give meaning to what is heard.
- *Auditory Discrimination:* the ability to hear & identify similarities & differences in sound. A learner must be able to hear the difference between words such as **h**at and **b**at – there is a small aural difference between these two words but a big difference in the way they are written.
- *Auditory Memory:* the ability to remember what the ears have heard and the correct sequence in which sounds have been perceived.
- *Auditory Foreground & Background:* the ability to isolate important specific sounds from general sounds in the environment.
- *Hand-eye Co-ordination:* the hands & eyes working together when performing a movement like throwing or catching a ball.
- *Body Image:* a complete awareness of one's own body – how it moves & how it functions.
- *Laterality:* showing an awareness of each side of the body – which hand is waving?
- *Dominance:* preferring to use one hand or side of the body – left or right dominant.
- *Crossing the Mid-line:* being able to work across the vertical mid-line of the body – being able to draw a line from one side of the page to the other without changing the tool from one hand to the other or moving the paper.
- *Figure-ground Perception:* being able to focus attention on a specific object or aspect while ignoring all other stimuli; the object of the attention is therefore in the foreground of the perceptual field while all the rest is in the background – the ability to find one word in a sentence.
- *Form Perception*: the ability to recognise forms, shapes, symbols, letters … regardless of position, size or background – can recognise a circle because of its unique shape.

- *Spatial Orientation:* the ability to understand the space around the body, or the relationship between the object and the observer.
- *Tactile Discrimination & Memory:* the ability to gather, understand & remember information through touch - children should have many opportunities to explore concrete objects with their hands.

How to Enhance Perceptual Development

Perceptual activities should be fun and meaningful for the teacher and the learners.

- Give learners plenty of opportunity to complete jigsaw puzzles to develop the skill of analysis & synthesis.
- Talk to learners about what they see in pictures & in books; draw attention to details in the pictures – visual discrimination.
- Threading beads is a fun activity for all learners; later they thread according to a simple pattern – understanding of spatial relationships; sequencing.
- Listening to stories – improves vocabulary and listening skills; attention span. Retelling of stories & including facts in the correct sequence – auditory memory.
- Listening to and singing nursery rhymes & songs; a game to remember and carry out instructions - promotes auditory memory.
- Identifying sounds in the environment – auditory discrimination & memory.
- Building blocks e.g. DUPLO elements make great construction play material. Copying a model to build a simple little house of bricks helps learners to understand spatial relationships.

Q: What is perceptual development?

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Q: What **perceptual skills** are developed during the Foundation Phase?

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Activities to develop perceptual skills & executive function - Reflection Time

Copy Cat – Visual

- How does a copying exercise develop visual perception?

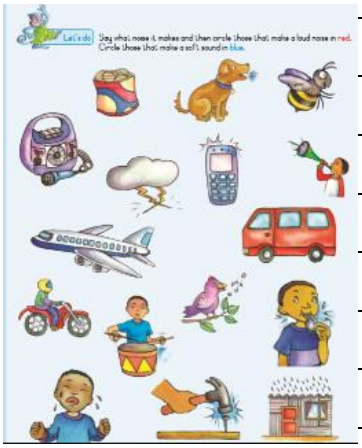
Copy Cat – Visual Memory

- Why is it important to practise visual memory?

- How did this visual memory activity challenge working memory, inhibitory control & cognitive flexibility?

Copy Cat – Auditory including Hand Jive

- How does the ability to discriminate between and remember different sounds help a learner to learn to read?
- How does the ability to remember a sequence of actions help a learner to learn to read?



Copy Cat – Listen & Build

- What skills are the learners developing in this activity?

Copy Cat - Tactile

- How well did *you* manage this exercise?

- What difficulties do you forsee your Gr 1 learners having with this activity?

- How would you make it easier for the learner who is not confident?

- How would you challenge the bright & very confident learner?

- What would you be able to assess during observation of any of these activities?

UNIT EIGHT

11. Concrete first! CPA – Concrete, Pictorial, Abstract

The Six Bricks can easily be integrated into the daily teaching programme where they can be used as the concrete tool when doing CPA. *The DBE workbook should not be used as a tool for teaching. The workbook should be used by learners who are developmentally ready & as the consolidation of the lesson taught. Young children are often inhibited when they have to write or draw, and creativity, an important part of the whole language approach, tends to be lost. It is vital that the Gr 1 learners should first manipulate concrete objects in order to develop perceptual skills and to grasp new concepts.*

Manipulatives - Concrete Apparatus

Manipulatives are physical objects/tools that are used in your teaching to engage children in hands-on learning. In your classroom you will have access to many types of manipulatives. These tools can be used to introduce, practise, remediate a concept and encourage children to build their knowledge and understanding. The use of manipulatives is constructivist because children are actively engaged in discovery during the learning process. Teachers must provide opportunities for children to explore the materials/tools and ask questions throughout the learning process.

Manipulatives are effective because:

- they are multisensory
- they represent ideas in more than one way
- they promote communication among learners
- they increase confidence, leading to lessened confusion and deepened understanding

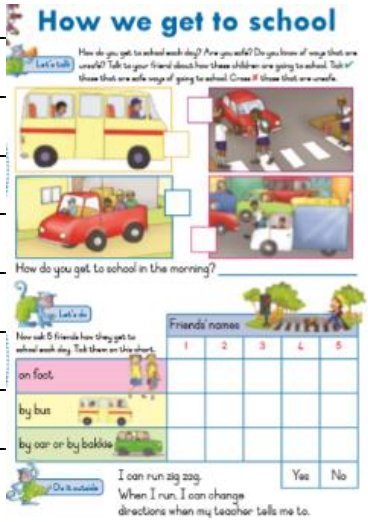
Six Bricks is one of many resources or manipulatives that focuses on the practice of learning through play. For the purpose of this Foundation Phase Initiative, the Six Bricks tool is the initial resource that will be used to help teachers understand the value of learning through play.

When teaching mathematics to Gr 1 learners, it is essential to present the mathematical idea in a way that is interesting, enjoyable & practical. An informal, concrete approach is the best and most desirable way to do this. It is important to teach mathematics effectively as successful teaching results in learners who are mathematically competent and therefore have better future prospects.

Concrete First

Look at any lesson that you have planned for next week. Consider how you can now use the Six Bricks as the concrete manipulative to help you teach the concept.

- Design a CPA Lesson:



UNIT NINE

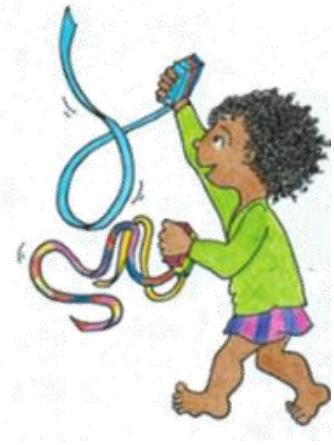
12. Daily Cross-lateral Activities are Vital

How can the teacher enhance the learner's gross motor development?

Learners need space where they can use their entire bodies. If the classrooms are crowded, go outside to find a suitable area. Outdoor play, climbing apparatus, ball play, moving to music are all essential for developing gross motor skills.

Look out for children whose movements are clumsy; cannot do their own buttoning/shoelaces; cannot kick/throw a ball; unable to walk backwards for 5 metres; cannot stand on one leg for at least 6 seconds; cannot do 5 consecutive hops; cannot run & jump rhythmically; cannot clap hands rhythmically/keep time to music.

What is laterality & why is it important?



Laterality is the inner experience children have that their bodies have two sides – left & right. This knowledge enables children to know which side of the body is moving & when it is moving; they get this sense around about the age of four; by the age of seven, 70% of children should be able to identify two sides of the body. If they reach the age of eight and are still unable to tell the difference between left & right, they could be at a learning disadvantage. Laterality is crucial to writing, spelling & mathematics where the directional sequence of figures is very important. (13 / 31; b / d)

What is dominance & why is it important?

Established dominance is important for readiness to learn at school because it is vital for a learner to use the same hand, foot, & eye when carrying out tasks. If this is not the case, the learner has cross-dominance which can give rise to writing problems due to the lack of eye-hand co-ordination. If this dominance is not established by the time they go to Gr 1, they will experience difficulties with spelling & reading; inversions will occur (e.g. p for b; bad for dab; pat for tap; pool for loop).

13. A Moving Child is a Learning Child

Movement and Brain Development

Why should we encourage our children to move?

Storing new memories and learning new skills, whether mental or physical, means creating new connections (synapses) between the many cells (neurons) in our brain. The formation and constant remodelling of such connections is the essence of brain development. Two key elements are required to form new neuronal connections – **nutrition** and **stimulation**.

Our current understanding of the brain points to the fact that this very complex organ is extremely dependant on **body stimulation** for its growth. All senses stimulate the brain – the images we see, the sounds we hear, the touch we perceive, all account for millions of nerve impulses travelling to our brain every second. But out of all the sensory stimuli, the most important is arguably that related to movement and the balancing of our body against the constant pull of gravity. The special sense informing our brain about the relative position, movement and tension in every part of our body is referred to as **proprioception** (Roost, 2016).

We know that movement is essential to learning. It wakes up the brain to learn, allowing the whole body to collect information through the senses. These sensory experiences build neural networks which help brain development.

The basic motor skills developed through movement are:

Spatial Orientation: the child's ability to perceive the position of one or more objects in relation to themselves and others. The child should be able to indicate what is next to, under, on top, behind and to the side of their body.

Body Awareness: the child's knowledge of the parts of their body which is the centre of their orientation in the world.

Directionality: can only be developed once a child has a well-defined sense of laterality & knowledge of the body parts. It occurs when the child transfers knowledge of the right and left sides of the body (laterality) into space. This allows them to learn the various references of directionality - left, right, up, down, in front, behind.

Daily school tasks require considerable directionality – writing in the top left-hand corner of a page; folding the right side of the paper to the left side; getting dressed requires knowledge of directionality – which is the front/back of a jersey; which is the left/right sleeve.

Interhemispheric Integration: the child's ability to integrate both the left and right -hand side of the body when doing movement – midline crossing exercises are vital.

Learners in Gr 1 could still be experiencing lack of skill in these areas which could hinder their academic progress. The Gr 1 classroom should still offer opportunities for learners to practise these skills. The following activities are examples of how Six Bricks can be used to provide such opportunities. Never skip your Physical Education lessons – these are perfect opportunities for the Gr 1 learner to continue developing gross motor muscles so necessary for learning. Many of the Six Bricks Activities can actually be turned into complete Physical Education lessons.

Improving Laterality, Dominance & Mid-line Crossing

- A grasp of laterality can only be gained when a child has had experience with their body. The learner needs to discover and use both sides of their body. Provide plenty of opportunities for gross motor activities for this to happen.
- A child's hand, eye & foot preferences are inborn qualities. Do not force a left-handed child to write right-handed.
- Create many opportunities for learners to draw and paint on large sheets of paper – this will spontaneously create ways in which children can cross the midline.
- Play games like throw & catch ball games etc.

Crossing the Midline

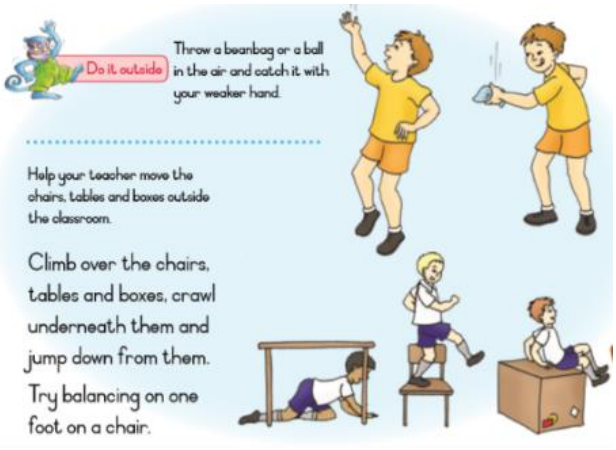
Young children first cross their midline when they are able to roll over, as babies. This ability sometimes only develops fully at about 8 months of age.

It is vitally important to build cross-lateral exercises *(movements in which arms and legs cross over from one side of the body to the other)* into every teaching day.

A child's motor planning *(jumping, bouncing, running)*, auditory *(retaining letters & sounds, listening to the teacher)* and sensory input *(behaviour, attention, focus)*

as well as organizational skills used for mathematics, is compromised when we do not allow our children **adequate time to develop these critical milestones** used for helping the left and right sides of the brain work together.

Movement and play-based activities *(often lacking in schools today)* are the key to helping children who struggle with things like auditory processing; following directions & instructions; everyday tasks; comprehension & the written word.



Using specific types of movement that connects the body with the brain = crossing the midline. It is important to remember that the body is divided left to right; top to bottom & front to back.

Toss & Catch & Cross-Lateral Fun Activities - Reflection Time

- How can Six Bricks provide opportunities for daily movement?

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- What do you understand by the term "crossing the midline"?

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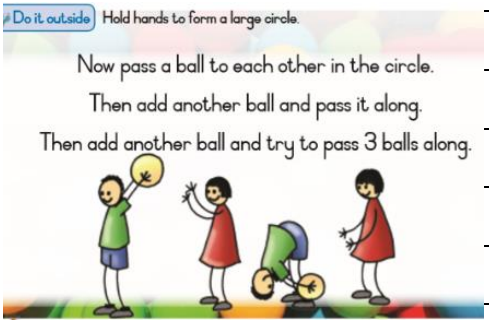

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- When do children first cross their mid-line?

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- What does crossing the midline have to do with reading and writing?

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- How do the activities we have just done help with crossing the midline?

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- How does “crossing the midline” help children’s development?

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_____

- How can you spot a young learner’s inability to cross the mid-line?

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_____

- What skills would you be able to assess during these activities?

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UNIT TEN

14. Consolidate Mathematical Concepts through the Playing of Games

Oldfield (1991) says that mathematical games are 'activities' which:

- involve a challenge, usually against one or more opponents
- are governed by a set of rules and have a clear underlying structure
- normally have a distinct finishing point
- have specific mathematical cognitive objectives

There are many advantages of using games in a mathematical programme: *Adapted from a summary in an article by Davies (1995)*

- Games create applications for mathematical skills.
- They motivate children, especially when they choose freely to participate & enjoy playing.
- They provide opportunities for building self-concept and developing positive attitudes towards mathematics, through reducing the fear of failure and error.
- Greater learning can occur through games due to the increased interaction between children, opportunities to test intuitive ideas and problem-solving strategies.
- They can allow children to operate at different levels of thinking and to learn from each other. In a group of children playing a game, one child might be encountering a concept for the first time, another may be developing his/her understanding of the concept, a third consolidating previously learned concepts
- Children's thinking often becomes apparent through the actions and decisions they make during a game, so the teacher has the opportunity to carry out diagnosis and assessment of learning in a non-threatening situation.
- Games provide 'hands-on' interactive tasks for both school and home.
- Children can work independently of the teacher. The rules of the game and the children's motivation usually keep them on task.
- Children from any language background can enjoy games. The basic structures of some games are common to many cultures, and the procedures of simple games can be quickly learned through observation. Children who are reluctant to participate in other mathematical activities because of language barriers will often join in a game, and so gain access to the mathematical learning as well as engage in structured social interaction.

Cover It: Math Group Game - Reflection Time

- How does this game enhance social-emotional skills?

_____

_____

_____

- List some other advantages of playing Mathematical Games in the classroom.

_____

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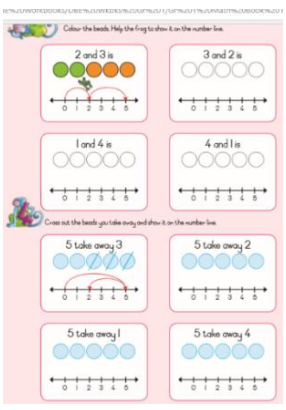
Invent your own Math Game using the Six Bricks with any other materials that are available.



Managing Six Bricks in the Classroom

WHERE do I keep my Six Bricks?

- In the Gr 1 classroom, each child will have their own set of Six Bricks, one of each colour; they cube or stack their bricks when not in use and these brick sets are stored in handy tubs, ready for use.
- It is vital that the children should be able to access their bricks readily and easily, because short, quick activities are done daily.
- At the end of every day's activities, each child should check that their Six Bricks set is complete, before packing it away; children could make up their own tidy-up song to store their Six Bricks.
- How do you, as the teacher, ensure that the children do not steal or take the bricks home?

WHEN do I use my Six Bricks?

- The secret of the success of the activities with Six Bricks lies in the **DAILY repetition** of skills.
- A Six Brick activity can be done at **any time** of the school day – before classes begin; before or during a lesson/task; before/after breaks; just before home time …
- Activities with Six Bricks starts off being teacher-directed but very subtly the learners begin to take charge of their own learning during the course of the year.
- Initially, the activities are short & sharp and designed to wake up the brain & get the body & brain working together.
- As you try out more and more of the activities, you will come up with plenty of your own ideas to also use the Six Bricks in other areas of learning.
- There are also longer games designed to encourage social skills, but get going with the **short, quick activities**, which sometimes only use one or two of the Six Bricks.
- It is these quick activities which we would like the Teachers to understand and get to grips with first … quickly get into the **habit** of doing these **every day**, as part of your routine.
- Six Bricks activities should be included in everyday planning.
- Mental Math should be done every day: use your Six Bricks for this.
- Learners must be kept "meaningfully busy": use your Six Bricks.
- Assessments and observation: observe learners as they complete a Six Bricks activity.

Gentle Teaching Reminders

Adapted from an excerpt in "Towards Thriving Not Just Surviving", a book about teaching by Carolina Botha, Charl Wolhuter & Deon Vos.

- Our job, as teachers, is to educate, to teach lessons & to prepare learners for life outside the classroom but it is also our purpose to go to the effort of really getting to know the child. Look beyond the "good" or the "bad" behaviour & the academic performance and see the potential & the heart of each child. Know their story.
- Relationships matter. Greet the children by name every morning; make eye contact; create a relationship of trust.
- When you truly connect with children, they will grow to love you; they will care for you; they will work for you. They will not want to disappoint you and you will see the results in their academic achievement. You have the power to unlock potential in each child you teach.
- As a teacher, you need to step up and fulfil a role as pack leader within the first few minutes of the first day of the year.
- Never criticise or scold a child in front of the rest of the class. You will humiliate the learner and be seen as the enemy. Take the learner outside after class & address the situation calmly & unemotionally. Look for reasons to praise rather than to criticise. Sincere praise publicly or privately can make a child feel worthwhile & loved.
- Never raise your voice – shouting is not conducive to creating an enabling learning environment & does not promote a sense of a teacher being in control of their class. Rather change the level on which you address learners – move closer to them. Improving classroom management skills promotes a sense of respect from learners.
- Admit your mistakes and take responsibility for them – apologise. This sets a good example for learners to follow & a good lesson to learn that they need to be responsible for their decisions & actions.
- You may find yourself presenting the same content year after year but for the learners in your class it is their first experience. They deserve the same enthusiasm, passion & effort into planning that you displayed when you first presented the lesson. Live your passion & teach the children well.

Reflection Sheet - Implementing Play-based Learning with Six Bricks

1. Many of our classrooms have large numbers of children. How can you organise your class so that play doesn't create a huge disruption?	2. In play and learning, children want to take control of how they learn. How can you, as a teacher, give more agency to children?	3. In play there are some chaotic times. Activities with the bricks may be noisy. How will you cope with this in the classroom?
4. Play is not a frivolous activity – it is serious work for children. When children are at play, how will you know if children are meaningfully engaged?	5. The Activities in CAPS are strongly linked to the Six Bricks Activities. What is the benefit of doing quick, 2 – 5 minute Six Bricks activities *daily*?	6. Assessment is an important part of teaching and learning. How could you use the bricks to assess the skills of the children in your class?
7. Keeping the bricks safe and readily available takes some planning. How will you prevent the bricks from getting lost or stolen and how will you ensure that they are easily accessible every day?	8. Playing every day is the way that children learn. Think about your daily and weekly schedule or timetable. Where best would you be able to slot in the quick, daily Six Bricks activities?	9. Collaboration and communication are two key skills needed for life-long learning. How can you encourage greater collaboration around learning through play in your school?
10. Change is sometimes difficult to embrace, especially when it easier just to stick with what you know. How do you feel about adopting a more playful approach in your classroom?	11. Parents should be a player in their children's learning. If a parent shows concern about all this "play" with bricks or other resources - how will you answer that parent?	12. It is important for school management to support learning through play. What would you say to your principal when you are asked why your class is so noisy?

Choose any 3 questions to answer.

Observation during these Six Bricks Activities can assist the Teacher to assess various skills

		About Me	News Build	Spatial; Letters	Friend	Pattern	Copy Cat	Dance; SS	Brick Stream	Cross-Lateral	Match; sort	Cover It	Towers
Physical	Balance	●						●	●	●	●	●	●
	Body image	●	●	●	●		●	●	●	●	●		
	Cross midline	●		●	●			●	●	●	●	●	●
	Fine motor		●	●	●		●	●	●	●	●	●	●
	Gross motor	●			●	●		●	●	●	●		
	Hand-eye co-ordination					●		●	●	●	●	●	●
	Hand-foot dominance					●		●		●	●		●
	Laterality	●	●	●	●	●	●	●	●	●	●	●	●
	Proprioception	●						●	●	●	●		
	Spatial orientation		●	●	●	●	●	●	●	●	●	●	●
	Spatial reasoning		●	●			●				●	●	●
Mathematical	Colour & shapes awareness	●	●	●	●	●	●	●	●		●		
	Comparing	●				●	●					●	●
	Computing											●	
	Counting	●				●	●				●	●	●
	Estimating										●	●	●
	Measuring						●				●	●	●
	Number concept					●	●				●	●	●
	Sequencing & Patterning			●	●	●	●	●	●		●	●	●
	Sorting & Matching					●	●				●		
Perceptual	Auditory discrimination			●	●	●	●	●			●		
	Auditory foregrnd & backgrnd					●	●		●				
	Auditory Memory	●		●	●	●	●	●	●		●		
	Figure-ground perception		●	●		●	●						
	Form perception	●	●	●	●		●						
	Observation	●		●		●	●	●			●		
	Tactile discrimination	●		●	●		●				●	●	●
	Tactile memory	●					●				●	●	●
	Visual discrimination	●		●	●	●	●				●	●	●
	Visual memory	●		●	●	●	●				●	●	●
Language	Auditory sequential memory				●	●	●	●	●				
	Describing	●	●	●	●	●	●						
	Listening		●		●	●	●	●	●				
	Prepositions		●	●	●	●	●	●					
	Talking	●	●		●	●	●				●	●	●
	Visual sequential memory					●	●			●			
	Allows for iteration	●	●	●	●	●	●	●	●	●	●	●	●
Cognitve	Creativity	●	●	●	●	●	●		●	●	●	●	●
	Critical thinking			●		●	●				●	●	●
	Planning & Problem solving		●	●	●	●	●		●		●	●	●
	Self-regulatory skills			●	●	●	●				●	●	●
	Visualisation		●	●	●	●	●				●	●	●
	Working memory	●	●	●	●	●	●	●	●	●	●	●	●
Socio-Emotional	Collaboration				●	●	●		●	●			●
	Consideration				●	●	●		●	●			●
	Empathy				●	●	●		●	●			●
	Playfulness	●	●	●	●	●	●	●	●	●	●	●	●
	Sharing				●	●	●				●	●	●
	Taking turns	●	●		●	●	●	●	●	●	●	●	●

Observation & Assessment Guideline

Activity: About Me			
The Learner is able to:	Very capable	Still struggles	Unable
Recognise shapes			
Distinguish textures			
Balance while moving			
Tell the difference between left & right			
Use a dominant hand/foot			
Point to parts of the body			

Activity: Build Your News			
The Learner is able to:	Very capable	Still struggles	Unable
Remember sequences of events			
Relate the sequence of events			
Use fine motor muscles			
Talk about their news			
Listen to others			
Measure the passing of time			
Build & draw about their news			

Activity: Spatial Positioning			
The Learner is able to:	Very capable	Still struggles	Unable
Use ordinals			
Name colours			
Know left from right			
Listen, interpret & follow instructions			
Manipulate objects in space			
Understand prepositions			
Conceptualise vocabulary: same/different			
Compare & discuss			

Activity: Build Shapes, Letters, Numbers			
The Learner is able to:	Very capable	Still struggles	Unable
Use the body to make shapes			
Distinguish letters & numbers			
Know the difference between upper/lower case letters			
Build geometric shapes			
Distinguish initial, middle, last sounds			
Trace letter, number shapes			
Draw/Write letters, numbers, shapes			

Activity: Build a Friend			
The Learner is able to:	Very capable	Still struggles	Unable
Appreciate & interpret a simple poem			
Create a model			
Be creative & imaginative			
Create a poem/story			
Appreciate good qualities in other people			
Be kind; have empathy			
Tell their story; draw/write their story			

Activity: Fun with Pattern			
The Learner is able to:	Very capable	Still struggles	Unable
Understand what a pattern is			
Describe a pattern			
Build a pattern			
Order, sequence, number, count			
Make changes to a pattern			
Create visual, auditory & movement patterns			

Activity: Freeze Dance; Simon Says			
The Learner is able to:	Very capable	Still struggles	Unable
Use their body in space			
Listen to; interpret; carry out instructions			
Listen to; interpret music			
Distinguish between different body parts			
Name & point to body parts			
Name and find colours			
Maintain balance & posture			
Control their behaviour			

Activity: Colour Match & Sort			
The Learner is able to:	Very capable	Still struggles	Unable
Recognise colours			
Match colours			
Associate colours			
Create a song & dance			
Work in a small group			
Estimate & count			
Compare & discuss sizes			
Conceptualise vocabulary: more/less/the same/different/equal/short/tall			

Activity: Tricky Tower			
The Learner is able to:	Very capable	Still struggles	Unable
Focus & concentrate on a task			
Persevere			
Exercise patience			
Lose/Win graciously			
Control emotions			
Express emotions			
Cross the midline			
Visualise			
Remember instructions			

Activity: Copy Cat			
The Learner is able to:	Very capable	Still struggles	Unable
Copy accurately			
Remember a colour sequence			
Listen to & remember a sequence of sounds			
Listen to & remember instructions			
Remember & visualise by touch (eyes closed)			
Distinguish similarities and differences though touch			
Communicate			

Activity: Data Handling			
The Learner is able to:	Very capable	Still struggles	Unable
Sort & categorise objects			
Count & organise			
Use symbols to represent objects			
Gather information & represent it in a grid			
Interpret data; compare & discuss			

Activity: Brick Streamers			
The Learner is able to:	Very capable	Still struggles	Unable
Co-ordinate eyes/hands/feet			
Create a song & dance			
Work in a small group			
Cross the front/back midline			
Cross the left/right midline			
Cross the top/bottom midline			
Perform actions while moving forward/backward			
March, skip, gallop, hop …			

Activity: Toss & Catch			
The Learner is able to:	Very capable	Still struggles	Unable
Co-ordinate eyes & hands			
Throw & catch objects			
Judge distance			
Judge how hard/soft to throw			
Perform actions while moving			
Create own ideas			
Estimate & count			
Understand where their body is in space			

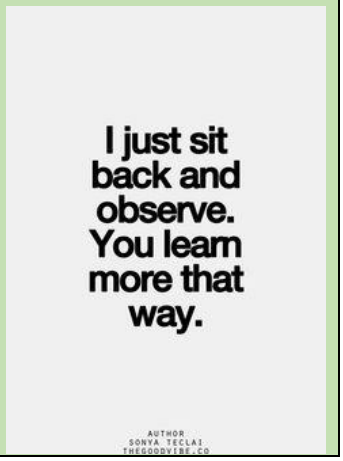
Activity: Over & Under & Torso Twists			
The Learner is able to:	Very capable	Still struggles	Unable
Cross the front/back midline			
Cross the left/right midline			
Cross the top/bottom midline			
Take turns			
Observe the rules; regulate behaviour			
Control the body			

Activity: Cover It			
The Learner is able to:	Very capable	Still struggles	Unable
Work in a group; collaborate			
Regulate behaviour			
Take turns			
Follow rules			
Win/Lose graciously			
Recognise, count & match numbers			
Create own number games			

Watch and listen to your Gr 1s individually & in groups as they interact with their surroundings and their friends. Look for specific behaviour or ability to better understand what each child knows or can do.

Document the actions & words observed – ongoing & throughout the year.

This observation & assessment style provides the Teacher with the basis for future planning of activities and supports for individuals & groups of children.



Notes and Feedback

In the space provided, please make note of any changes you would like to see in the course. Your feedback is invaluable.

Keep it Alive!

Visit and download the Six Bricks App for more exciting, playful ideas.

Available on Apple and Android.

Visit the Care for Education website at www.carefored.co.za

You can download additional resources and ideas.

Visit www.playsa.org

PLAY is a FREE in-service training course that complements existing and formal training.

It is not intended to replace educational training but qualifies the participant for the 15 CPD SACE credits.

Visit and download TeacherConnect. This is a free WhatsApp Service at 0600603333