



Sunningdale School

## Early Cognition Skills

The following pages contain extensive lists of early cognition and thinking skills relevant to pupils that are not yet engaged in subject specific learning. Some of them require specialist resources but many of them are easy to present to children using widely available toys and activities.

These were originally compiled by the Barrs Court School ([www.barrscourtschool.co.uk](http://www.barrscourtschool.co.uk)).

The titles at the top of pages refer to areas of literacy that these very early skills underpin.

T= Tactile

V= Visual

A= Auditory

COG= Cognitive/ Thinking

We hope you find them useful.

**EQUIPMENT FOR THE ASSESSMENT AND DEVELOPMENT OF PUPILS'**  
**VISUAL SKILLS**

(See supplier details 1-5)

Assorted torches

Maglite torches with colour filters (red, blue, green, yellow)

Colour frames set (red, blue, yellow)

Travelling light rope

Bubble tube

Par can floodlight and colour filters

Pinspot and colour wheel

Mirror ball

Coloured spotlights

Fiberoptic carpet

Solar 250 Effects projector with assorted effect wheels and cassettes

Disco ball

Siren lights

Magic Mushroom

Fiberoptic light source

Fiberoptic fountain / curtain

Light box (with transformer adaptor)

Shadow play bats

Zig-zag diffraction tracker

Diffraction roller shakers

Glitter sticks

Glitter twisters

Rainbow glitter windsock

Silver space blankets

Metallic bead ropes

Giant shiny beads

Glitter straw

Metallic strands

Silver hanging stars

Silver tinsel wig

Diffraction / holographic gift bags and boxes

Bubbles with wand and bubble gun

Combined light / sound equipment eg. caterpillar, car, spinning top, musical keyboard, electronic drumsticks, etc.

Mirrors (hand held) square or round frames in assorted colours

Kaleidoscope mirror tray

Large mirror tray

Distortion mirrors set

## **EQUIPMENT FOR THE ASSESSMENT AND DEVELOPMENT OF PUPILS' VISUAL SKILLS (continued)**

(See supplier details 1-5)

### **Fluorescent equipment for use with UV light**

The following equipment can be used effectively in the assessment and development of pupils' visual skills. The items can be presented under normal lighting conditions, but optimum effects will be achieved using ultra violet light (UVL) within a dark environment.

- Fluorescent spinning cube
- Fluorescent mirror chimeabout
- Fluorescent velcro rubber shapes
- Fluorescent linelite (two diameters)
- Fluorescent bead pockets set
- Fluorescent linelite wand
- Fluorescent glow rods (two diameters)
- Fluorescent rubber wrist bands
- Fluorescent foam balls
- Fluorescent jingle balls
- Fluorescent bead tubes (assorted sizes)
- Fluorescent groan tube
- Fluorescent framed sunglasses
- Fluorescent slinky springs
- Fluorescent roller shaker
- Fluorescent weight rods
- Fluorescent sound tubes
- Fluorescent twisters
- Fluorescent furry spiders
- Fluorescent Frisbees
- Fluorescent flying saucers
- Fluorescent floating scarves
- Fluorescent silky fabric
- Fluorescent net fabric
- Fluorescent fur fabric
- Fluorescent "Bolter" toy
- Fluorescent Geoshape
- Fluorescent giant inflatable cube
- Fluorescent wooden balls (small)
- Fluorescent rubber jacks and ball
- Fluorescent feather duster
- Fluorescent crazy straws
- Fluorescent furry pipe cleaners
- Fluorescent Velcro grip catcher and ball

## **Explanation of Coding used in the Curriculum for Early Thinking Skills**

**ETS = Early Thinking Skills**

**ECS = Early Communication Skills**

**EMS = Early Motor Skills**

**TFL = Tools for Learning**

**RE = Responsive environments**

**SI = Self Image and Body Awareness**

**SB = Soundbeam**

**RB = Resonance Boards**

**SAD = Switches and Access Devices**

**CM = Choice making**

**PS = Problem Solving**

**RUP = Recognising and Understanding Patterns**

**OP = Object Permanence**

**CN = Counting and Number**

## **EQUIPMENT FOR THE ASSESSMENT AND DEVELOPMENT OF PUPILS' LISTENING AND SOUNDMAKING SKILLS**

(See supplier details 1-9)

Resonance Board  
Assorted percussion instruments  
Percussion Set in carry case  
Tuned percussion instruments (chime bars, xylophones, handbell set, etc.)  
Rainmakers  
Football rattle  
Activity giggle ball  
Wiggly Giggly ball  
Ocean drum and soft beater  
Lollipop drum and beater  
Sound shapes and beaters  
Zube tube  
Wrist bells  
Diffraction roller shakers  
Maraccas  
Hand Bells  
Castanets  
Assorted whistles, kazoos, etc.  
Slide Whistle

Fluorescent roller shaker  
Fluorescent mirror chimeabout  
Fluorescent shaker tubes  
Fluorescent sound tubes  
Fluorescent jingle balls  
Fluorescent squeaking moon ball

Sound activated switch with microphone (to operate any switch operable equipment eg. bubble tube, fan, fibroptics, etc. through voice / sound)  
Soundbeam 2 with additional switches  
Electronic keyboard  
Light and sound keyboard  
Cassette Recorder (with microphone and earphone sockets)  
CD / Cassette player  
Coomber tape recorder / player and microphone  
Voice distortion unit  
Voice changer microphone  
Electronic drumsticks  
Electronic drum machine  
Karaoke machine and microphones

## **EQUIPMENT FOR THE ASSESSMENT AND DEVELOPMENT OF PUPILS' TACTILE SKILLS (see supplier details 1-5)**

### VIBRO TACTILE ITEMS

Vibro-tube  
Vibro-pillow (switch operable)  
Vibro Bug  
Foot spa  
Bumble ball  
Vibro-tactile caterpillar  
Vibro-spider  
Bubble tubes

### TACTILE SOUND ITEMS

Bubble wrap  
Space / shaker blanket  
Cellophane  
Packing materials eg. inserts for chocolate boxes  
Guiro  
Cabassa  
Rainmaker  
Ocean drum

### AIR ITEMS

Large oscillating fan  
Small battery fan (switch operable)  
Assorted windmills and wind spirals  
Glitter windsocks  
Bubbles with wand and bubble gun  
Empty water spray bottles and water pistol  
Hairdryer  
Feather / paper fan  
Battery operated mini fan  
Balloons  
Balloon pump

### WATER ITEMS

Foot spa  
Bubbly water  
Coloured water  
Scented water  
Warm/cool water  
Paddling pool  
Water tray  
Plant sprayer, squeeze bottle  
Water pistol  
Clear plastic trays/containers  
Colanders, sieves, funnels, clear plastic tube  
Items for floating and sinking eg. sponges, balls, pebbles

## **EQUIPMENT FOR THE ASSESSMENT AND DEVELOPMENT OF PUPILS' TACTILE SKILLS (continued)**

### PLIABLE MATERIALS

Play dough  
Soft stuff  
Wet sand  
Clay  
Woodyform  
Silly Putty  
Plasticene  
Cooked pasta shapes / spaghetti / noodles / rice  
Mashed potato  
Jelly

### WET SUBSTANCES

Bubbles  
Cornflour and water  
Icing sugar and water  
Soap flake mix  
Shaving foam  
Hair gel  
Honey / syrup  
Massage oil / lotion  
Paste  
Finger paint  
Hand cream / body lotion

### DRY MATERIALS

Uncooked pasta, rice, lentils  
Cereals  
Flour  
Shells, pebbles  
Sand  
Straw, glitter straw  
Wood shavings  
Feathers  
Dry leaves  
Pot pourri  
Shredded paper, tissue, cellophane

### TEXTURED SURFACE ITEMS

Velvet, fur, wool fleece, felt, corduroy  
Suede, leather, plastic, rubber, foam  
Satin, silk, chiffon, cotton, net  
Fluorescent fabrics (fur, net, satin, etc)  
Wooden, metal, plastic, rubber items  
Rough items eg. brushes, pan scourers, sanding blocks, loofah mitts

**EQUIPMENT FOR THE ASSESSMENT AND DEVELOPMENT OF PUPILS'  
TACTILE SKILLS (continued)**

Tactile hands and feet set

Tactile squares set

Velcro fluorescent rubber shapes and wristbands

Sensory activity cubes

Assorted feely balls eg. hedgehog ball, nobbly wobbly balls, moon ball, poco and easy catch balls, foam balls, etc.

Bean bags and quoits



## ITEMS FOR DEVELOPING BODY AWARENESS

(see supplier details 1-5 and 10-13)

Mirrors

Soft make up brushes, shaving brush, etc.

Soft, smooth, silky fabrics

Feather duster

Rainbow duster

Koosh balls

Silky koosh balls

Massage rollers

Massage brushes

Relaxation sensory tub (see supplier ref. 5)

Hand / body lotion

Massage oil / lotion

Beanie toys

Small, lightweight sensory items for holding / grasping

Gloves, mittens, etc. of different textures and visual qualities

Brightly coloured / fluorescent / patterned socks

Flashing slippers

Hats and wigs

Flashing headbands

Glove and finger puppets

Bangles, bracelets

Fluorescent wrist / ankle bands

Velcro wrist / ankle bells

Large pieces of lightweight fabric for covering whole body

Parachute

Face paints / make-up

Scented lip balm

Vibro-tactile items

Foot spa

Blankets

Parachutes

Ripple sheets

Lengths of fabric eg. sari type

Ribbon sticks

Streamers

Pantomima Lycra sacks

## ITEMS FOR DEVELOPING SMELL AND TASTE

(see supplier details 1-5)

Aroma balls

Aroma blocs

Aroma cans

Aroma dough

Aroma stone

Fruit scented bubbles

Aromatherapy starter kit

Aromatherapy diffuser

Aroma lamp

Aroma sound spa

Aroma Spring foot spa

Scented cushions

Wheat / lavender heat pillow

Follow Your Nose aroma set (lots of different smells for sniffing in small pots – good for incorporating into sensory stories)

Smelling strips / cotton buds for placing different smells on

Plastic film containers with lids for keeping smells in (eg. on cotton wool balls)

Smells could include those experienced in the following activities:

- Cooking and eating
- Household / cleaning
- Washing, bathing, personal care (including smells to add to water)
- Gardening eg. aromatic plants, herbs and flowers
- Keeping healthy eg. medicinal smells, lotions and potions
- Relaxation eg. aromatherapy smells, incense, joss sticks

Flavoured lip balms

Taste items of different consistencies, texture and temperature eg:

Main taste sections:

- salt
- sweet
- sour
- bitter

Subsidiary taste sections:

- fruity
- savoury
- spicy
- hot / fiery eg. peppermint, curry powder, hot chutney / pickles
- herbal
- bland

Subsidiary consistency and texture sections:

- sticky
- melting eg. sorbet, ice cream, ice lolly, chocolate flake, meringue, fudge
- creamy
- liquid
- fizzy
- coarse

- smooth
- lumpy
- thick / thin consistency

Plates, bowls or small trays for containing items for tasting  
Items for tasting from eg. appropriate spoons (taking account of pupils individual needs and difficulties eg. bite reflex, oral sensitivity, etc). It may be more appropriate for some pupils to use their fingers to taste certain items.

## **T1: TO TOLERATE TOUCH AND THE PRESENCE OF OBJECTS OR MATERIALS PLACED ON OR IN THE HAND**

Many pupils with PMLD have some degree of sensory impairment. The resulting sensory deprivation can leave the pupil feeling very vulnerable and unexpected stimuli can be startling or even frightening when they do not know what is happening. The pupil may generalize these responses, becoming defensive against new experiences and even developing strategies to avoid stimulation. In the face of sensory defensiveness, it is vital to ensure that the pupil learns to tolerate, enjoy and seek stimulation. Helping the pupil to develop curiosity and a feeling of being in control are vital elements of this. Those pupils who are tactile defensive tend to seek secure areas and close themselves off from the environment rather than reaching out to explore it. They need security before curiosity can be nurtured. Curiosity is a constructive response to stimulation and is a driving force in a pupil's development. However, the constructive aspects of curiosity, which lead to exploratory acts, can be disturbed when a pupil is over-sensitive or over-reactive to stimuli.

### **Suggested activities**

- To help avoid startling the pupil and generating defensive behaviours we need to adopt sensitive approaches to giving the pupil objects/materials and offer him the opportunity to anticipate the experience.
- Use a vocal lead in and perhaps first touch some less sensitive part of their body eg. their shoulder with the object before bringing it into the proximity of their grasp by sliding the object down the pupil's arm to the back of their hand. The pupil may then turn their hand to touch/grasp the object with a feeling of being in control
- Let the pupil look at and/or listen to the object before touching it against their hand
- When touching a pupil to draw their attention remember that the surface sensors that experience light touch tend to be cued to raise alerting signals. Unexpected light touch can therefore trigger alarm responses that may disrupt the pupil's inclination to learn, in particular fleeting touch from outside the pupil's field of vision. Well anticipated, firm or enfolding touch can, however, be very calming.
- Observe the pupil in different situations and note his tactile response to different textured objects/materials/substances
- Always endeavour to make the activity fun, using objects and activities that you know the pupil likes or enjoys and which should motivate him to reach out and touch. These should include activities such as rebound, hydrotherapy, intensive interaction, music therapy, etc where there are good opportunities for building trust within the relationship between adult and pupil.

### **What to record**

- Pupil's avoidance of touch by others
- Pupil shows aversive responses to non-noxious touch
- Pupil shows atypical responses to non-noxious tactile stimuli

## **T1: TO TOLERATE TOUCH AND THE PRESENCE OF OBJECTS OR MATERIALS PLACED ON OR IN THE HAND (continued)**

- Pupil is reluctant to touch/grasp certain objects/materials (record which)
- Pupil is seen to touch, feel, grasp, explore certain objects/materials (record which)
- The attributes of those objects which the pupil appears keen to touch, hold or explore tactually (eg. shiny; red; additional sound attribute; rough/smooth, etc.)
- Objects/materials/substances presented to the pupil
- Setting conditions – the environment; position of pupil; who was working with the pupil; the pupil's emotional and physical state

### **Resources**

See list of equipment for developing tactile skills in Appendices

**Strategy Ref. TFL / MSE / S.I.**

## T2: TO DEMONSTRATE AWARENESS OF TACTILE STIMULI

The emphasis within this section is very much on the use of play as a means of enabling the pupil to experience different tactile qualities within the immediate environment. It is important that the activities are fun and of a type that will motivate the pupil to want to explore the tactile nature of his environment more fully. Regardless of any pupil's physical limitations, it is intended that the pupil will progress from being a passive participant within co-active play activities to being more active in his tactile exploration of the immediate environment without prompting from an adult.

The activities within this section are also useful for helping to:

- Develop the pupil's body image and spatial awareness
- Arouse the pupil's interest in the person and/or object causing the tactile sensation
- Develop the pupil's interest in and motivation for active exploration
- Provide the pupil with opportunities to express preferences and have some control over their environment

### Suggested activities

- In all the following activities, provide the pupil with meaningful and relevant cues (eg. verbal cue; letting the pupil see/hear the fan; show them what the object does, etc.) before starting the activity, in order to alert them to the fact that something is about to happen
- Using any of the **AIR** items listed, gently fan the pupil's hand/s, looking for responses that indicate the pupil is aware of and enjoying the sensation or expressing dislike. Try varying the speed/intensity of the air pressure. Fan other parts of the pupil's body eg. feet, face, neck if the pupil has shown acceptance or enjoyment of the activity. Vary the distance, direction, intensity, air temperature, etc.
- Use a plant sprayer with the nozzle turned to fine spray (and have a towel ready to dry the pupil afterwards). Using warm water (not hot!) gently spray a little directly on to the back of the pupil's hand. Hold the sprayer far enough away for the water spray to be as light as possible. Note the pupil's response and repeat the activity if the pupil indicates acceptance or enjoyment. The activity can be varied by holding the spray nearer to or further away from the pupil; varying the temperature of the water (within reason); spraying other body parts eg. arms, legs; making one long spray or a few short intermittent sprays, etc. Ensure the pupil is dried thoroughly afterwards.
- Using a suitable bowl or deep sided tray filled with warm water, place one of the pupil's hands or their fingertips on the surface of the water. Gently trickle water on to their hand. Move their hand across the surface of the water. Gently splash their hand in the water. Vary the depth, temperature (again within reason) of the water, try similar activities with the pupil's feet instead of hands and vary the activity further by using any of the **WATER** items listed. Dry the pupil thoroughly afterwards.

## **T2: TO DEMONSTRATE AWARENESS OF TACTILE STIMULI (continued)**

### **What to record**

- Details of the materials used
- Whether the pupil resisted the sensation
- Whether the pupil showed passive acceptance of the activity
- Activities or sensations that the pupil appeared to particularly enjoy
- Activities or sensations that the pupil appeared to dislike
- Whether the pupil indicated that he wanted the activity to continue or be repeated and, if so, how?
- Whether the pupil showed anticipation of the activity and , if so, how?
- Whether the pupil initiated activity eg. placing hand in water spontaneously
- Did the pupil exhibit any spontaneous actions/movements
- The stability of the tactile stimulus eg. was it constant or intermittent
- The area of tactile stimulation i.e. which part of the body and how much of it was in contact with the tactile stimulus
- The intensity of the tactile stimulus eg. heavy, gentle, light touch
- The duration of the tactile stimulus i.e. how long was the pupil in direct contact with the stimulus
- The setting conditions – the environment; who was working with the pupil; pupil's position; the physical and emotional state of the pupil, etc.

### **Resources**

See list of equipment for developing tactile skills in Appendices

**Strategy Ref. TFL / MSE / S.I.**

### T3: TO LOCALISE A TACTILE STIMULUS TO A SPECIFIC BODY PART

#### Suggested activities

- Ensure that the pupil is sitting or lying in a comfortable position and that you are able to see his face clearly. Provide verbal/tactile/visual cues to enable the pupil to anticipate the activity
- Stroke the back of the pupil's hand using your fingertips. Always tell the pupil what you are doing and observe any responses that may indicate enjoyment or dislike of the activity. Respect the pupil's signals and respond accordingly
- Vary the activity by using items listed for the development of **BODY AWARENESS** eg. hand lotion, soft make-up brush, feathers, etc.
- If the pupil indicates acceptance or enjoyment of this activity you could try the same activity on different body parts eg. arms, legs, feet, face, neck, always respecting the pupil's signals that they want the activity to continue or cease.
- Songs, poems and rhymes that include actions on, or identification of, different body parts eg. Heads, shoulders, knees and toes, can be used to good effect, helping the pupil to increase body awareness and their awareness of tactile stimuli
- Anticipation games using puppets, fluorescent feather duster, vibrotube, etc. Gradually build up the suspense eg. "I'm coming to get you....I'm going to tickle your.....ear! and look for signs of anticipation from the pupil

#### What to record

- Details of the materials used
- Whether the pupil resisted the sensation
- Whether the pupil showed passive acceptance of the activity
- Activities or sensations that the pupil appeared to particularly enjoy
- Activities or sensations that the pupil appeared to dislike
- Whether the pupil was able to localize the tactile stimulus to the specific body part and how this was demonstrated eg. by eye pointing or looking at body part, moving the body part that was being touched, bringing his hand towards the appropriate area of the body either during or immediately after the activity
- Whether the pupil indicated that he wanted the activity to continue or be repeated and, if so, how?
- Whether the pupil showed anticipation of the activity and, if so, how?
- Whether the pupil initiated activity eg. taking adult's hand and moving it towards pupil's hand
- Did the pupil exhibit any spontaneous actions/movements
- The stability of the tactile stimulus eg. was it constant or intermittent
- The area of tactile stimulation i.e. which part of the body and how much of it was in contact with the tactile stimulus
- The intensity of the tactile stimulus eg. heavy, gentle, light touch
- The duration of the tactile stimulus i.e. how long was the pupil in direct contact with the stimulus



- The setting conditions – the environment; who was working with the pupil; pupil's position; the physical and emotional state of the pupil, etc.

**Resources**

See list of equipment for developing tactile skills in Appendices

**Strategy Ref. TFL / S.I.**

## **T4: TO DEMONSTRATE AWARENESS OF THE VIBRO-SOUND PROPERTIES OF TACTILE OBJECTS**

### **Suggested activities**

- Allow the pupil to look at and listen to a chosen vibro-tactile toy or object operated by an adult sitting in front of him. Let him observe the object when it is still/silent and when it is in motion
- Using any of the **VIBRO-TACTILE** items listed, place the pupil's hand/s on the chosen object. Switch the object on so that the pupil can feel the vibrations and hear the sound made.
- Let the pupil explore the vibro-tactile qualities of the object using other parts of their body if they so wish eg. feet, cheeks, lips, arms, legs
- Using any of the **TACTILE-SOUND** items listed, help the pupil to explore both the tactile and sound properties of the items by stroking, scrunching, shaking the object or material

### **What to record**

- Details of the materials used
- Whether the pupil resisted the sensation
- Whether the pupil showed passive acceptance of the activity
- Activities or sensations that the pupil appeared to particularly enjoy
- Activities or sensations that the pupil appeared to dislike
- Whether the pupil indicated that he wanted the activity to continue or be repeated and, if so, how?
- Whether the pupil showed anticipation of the activity and, if so, how?
- Whether the pupil initiated activity eg. placing hand on bumble ball spontaneously
- Did the pupil exhibit any spontaneous actions/movements
- The stability of the tactile stimulus eg. was it constant or intermittent
- The area of tactile stimulation i.e. which part of the body and how much of it was in contact with the tactile stimulus
- The intensity of the tactile stimulus eg. heavy, gentle, light touch
- The duration of the tactile stimulus i.e. how long was the pupil in direct contact with the stimulus
- The setting conditions – the environment; who was working with the pupil; pupil's position; the physical and emotional state of the pupil, etc.

### **Resources**

See list of equipment for developing tactile skills in Appendices

### **Strategy Refs. MSE / S.I. / RB**

## **T5: TO EXPLORE THE SURFACE TEXTURES OF OBJECTS AND MATERIALS**

### **Suggested activities**

- Use a lap tray or the pupil's wheelchair tray to which you have secured a piece of fabric with an interesting surface texture
- Using any of the **TEXTURED SURFACE** items listed attach objects / materials (only two or three initially) with interesting textures to a plastic draining mat (with holes) and fix the mat to the pupil's tray or table top using ribbon ties
- Place the pupil's hands on top of the tray, palms down if possible, and encourage him to feel the texture/s by patting, stroking or moving his hands across the surface of the material/objects.
- Make a feely bag or box so the pupil has to touch / feel the item before seeing it. Start with just one item and ensure that the item is small enough for the pupil to grasp. Vary the contents of the bag or box to include everyday objects, favourite toys, materials with different textures, etc. Once the pupil has located the object manually inside the feely bag, empty the bag so that he may explore the object/s more fully
- Suspend objects with different tactile properties from a mobile hanging frame for the pupil to explore
- Place different textured objects within a defined space eg. a deep sided tray, the folding goal, a paddling pool, etc. so that the pupil can explore the objects freely without them falling outside the pupil's reach
- Vary the materials used to offer different surface textures and tactile properties eg. smooth/rough textured surfaces; rubber surfaces that offer good traction and slippery surfaces; materials with different surface temperatures eg. fur and metal
- Provide groups of objects that have similar tactile properties eg. all metal; all rubber; all brushes, etc
- Provide groups of objects that have very different tactile properties eg. a set of smooth surfaced objects and a set of rough surfaced objects

### **What to record**

- Details of the materials used
- Whether the pupil resisted the sensation
- Whether the pupil showed passive acceptance of the activity
- Activities or sensations that the pupil appeared to particularly enjoy
- Activities or sensations that the pupil appeared to dislike
- Whether the pupil indicated that he wanted the activity to continue or be repeated and, if so, how?
- Whether the pupil initiated activity eg. reaching out to grasp objects on the hanging frame
- Did the pupil exhibit any spontaneous actions/movements eg. stroking, swiping, patting the surface of objects/materials
- Did the pupil appear to show recognition of any familiar objects by their tactile properties alone and, if so, how?

### **T5: TO EXPLORE THE SURFACE TEXTURE OF OBJECTS (continued)**

- The duration of the tactile stimulus i.e. how long was the pupil in direct contact with the stimulus
- The setting conditions – the environment, including presence of visual/sound distractions; group or individual session; who was working with the pupil; the pupil's position; the physical and emotional state of the pupil, etc.

#### **Resources**

See list of equipment for developing tactile skills in Appendices

**Strategy Ref. TFL / FM / MSE / R.E**

## **T6: TO EXPLORE THE TACTILE PROPERTIES OF OBJECTS AND MATERIALS WHICH DIFFER IN TEXTURE, SIZE, WEIGHT, SHAPE, PLIABILITY, DENSITY, ETC. USING A VARIETY OF ACTIONS**

The emphasis of this section is to enable the pupil to actively explore the tactile properties of objects and materials in a variety of ways in order to gain as much information as possible about the object and its properties. The skills that are required for a pupil to actively explore objects include:

- Grasping and releasing
- Banging and knocking
- Swiping
- Pressing
- Patting and poking
- Pulling and pushing
- Stroking
- Scratching and scraping
- Throwing and dropping
- Shaking
- Squeezing
- Stretching
- Tearing
- Using one hand in isolation
- Using two hands together

Activities should seek to promote the development of these skills in addition to the basic tactile skills under consideration.

### **Suggested activities**

- Using a small selection of the pupil's favourite toys/objects, allow the pupil to explore each item in turn. If necessary, model the appropriate actions to the pupil, prompting any of the associated skills described above.
- Encourage the pupil to choose a preferred item from a small selection and provide the necessary support to enable him to explore its properties
- Let the pupil explore **WET SUBSTANCES** (see list) using their hand/s and fingers to make marks and trails eg. in shaving foam squirted on to a tray or table top. Model/ prompt as necessary to assist the pupil in exploring the properties of the substance. Vary the activity by using different substances. Use appropriate vocabulary to reinforce the sensations the pupil may be experiencing.
- Encourage the pupil to perform some of the exploratory actions described above using a variety of **PLIABLE MATERIALS** (see list). Model and prompt actions and movements as necessary.
- Give the pupil a large ball of play dough on their tray or table top. Model some of the actions eg. pressing, poking, squeezing, pulling, stretching, etc. Help the pupil to make thumb/finger prints in it; roll it out using their hands; flatten it; squeeze it back into a ball, etc.

**T6: TO EXPLORE THE TACTILE PROPERTIES OF OBJECTS AND MATERIALS WHICH VARY IN TEXTURE, SIZE, WEIGHT, SHAPE, PLIABILITY, DENSITY, ETC. USING A VARIETY OF ACTIONS (continued)**

- Present a variety of 3D shapes and assist the pupil in exploring their properties eg. balls of different weights, size, texture, etc. can be rolled, thrown, bounced, squashed. Cubes in the form of boxes, containers, foam blocks, wooden bricks, etc. have edges and corners to feel. They can slide, be placed on top of one another (and knocked down), have things put inside them, etc. Cylinders can roll, stand up and be stacked/ knocked over.
- Let the pupil experience hollow shapes and containers with/without lids that they can put things into and empty things out of

**What to record**

- Details of the materials used
- Whether the pupil resisted the activity
- Whether the pupil showed passive acceptance of the activity
- Activities or sensations that the pupil appeared to particularly enjoy
- Activities or sensations that the pupil appeared to dislike
- Whether the pupil indicated that he wanted the activity to continue or be repeated and, if so, how?
- Whether the pupil showed anticipation of the activity and, if so, how?
- Whether the pupil initiated activity
- Did the pupil use one or both hands to explore the object or material?
- The nature of the actions that the pupil was able to perform independently
- The actions that the pupil was able to perform following modelling or prompting
- The duration of the activity i.e. how long was the pupil in direct contact with the stimulus
- Did the pupil show recognition of a familiar toy or object by repeating the exploratory actions he used with that object previously?
- The setting conditions – the environment, including the presence of any visual or sound distractions; who was working with the pupil; the pupil's position; the physical and emotional state of the pupil, etc.

**Resources**

See list of equipment for developing tactile skills in Appendices

**Strategy Refs. TFL / FM / PS**

## **T7: TO USE TWO HANDS TO EXPLORE THE PROPERTIES OF AN OBJECT / MATERIAL**

### **Suggested activities**

- When encouraging pupils to explore objects using two hands, it is important that, whenever possible, they bring the object into midline to allow for both tactile and visual examination. However, those pupils who use their peripheral vision most effectively will be more inclined to hold the item to one side of midline in order to examine visually.
- Use objects and materials that have interesting and/or contrasting properties and that are small enough for the pupil to hold and manipulate comfortably
- Think about the different properties of the object you are going to present to the pupil and what might interest them sufficiently to explore it eg. different surface textures, shape, weight, pliability, additional sound or visual elements
- Initially, present the object on a firm surface eg. a tray or table top so that the pupil does not have to support the weight of the object whilst exploring it
- Suspend interesting and attractive objects from a hanging frame so that they are directly in front of the pupil. Encourage them to reach and grasp the object. Once again the pupil does not have to support the weight of the object whilst exploring it
- Use sensory cubes or activity cubes which have different properties on different sides to encourage the pupil to turn/rotate the object with two hands
- Use objects that make a sound when moved eg. rainmaker, jingle ball, diffraction shaker, to encourage the pupil to manipulate the object

### **What to record**

- Details of the materials used
- Whether the pupil resisted the activity
- Whether the pupil showed passive acceptance of the activity
- Activities or sensations that the pupil appeared to particularly enjoy
- Activities or sensations that the pupil appeared to dislike
- Whether the pupil indicated that he wanted the activity to continue or be repeated and, if so, how?
- Whether the pupil showed anticipation of the activity and, if so, how?
- Whether the pupil initiated activity
- Did the pupil use both hands to explore the object or material?
- The nature of the actions that the pupil was able to perform independently
- The actions that the pupil was able to perform following modelling or prompting
- The duration of the activity i.e. how long was the pupil in direct contact with the stimulus
- Did the pupil show recognition of a familiar toy or object by repeating the exploratory actions he used with that object previously?

- The setting conditions – the environment, including the presence of any visual or sound distractions; who was working with the pupil; the pupil's position; the physical and emotional state of the pupil, etc.

**Resources**

See list of equipment for developing tactile skills in Appendices

**Strategy Refs. TFL / FM / PS**



## **T8: TO LOCATE MANUALLY AN OBJECT PLACED IN A CONTRASTING TACTILE MEDIA AND IDENTIFY OBJECTS BY TOUCH AND MANIPULATION.**

### **Suggested activities**

- Select an object or toy that is known to be liked by the pupil. Show the pupil the object and allow him to explore it. Place the object in a bowl, box or deep-sided tray containing contrasting tactile media eg. shredded paper, sand or lentils. Ask the pupil to find the object and if necessary prompt him to push his hands into the media, find and retrieve the object and then explore it manually and visually.
- Vary the size, shape and texture of the object being hidden
- Praise the pupil for finding the object and if appropriate play a turntaking game allowing the pupil opportunities to hide the object for you to find
- Make a feely bag or box which the pupil has to put his hand in to pick out a selected object. Have pairs of identical objects eg. two hairbrushes, two plastic cups, two metal spoons, two balls, etc. Start with one object in the bag/box and show the pupil the identical object, giving him the opportunity to manipulate and explore it. Ask the pupil to find the same object in the bag/box and prompt if necessary. If the pupil enjoys the activity increase the number of objects in the bag to two and then three presenting one identical object for the pupil to find.

### **What to record**

- Details of the materials used
- Whether the pupil resisted the activity
- Whether the pupil showed passive acceptance of the activity
- Activities or sensations that the pupil appeared to particularly enjoy
- Activities or sensations that the pupil appeared to dislike
- Whether the pupil indicated that he wanted the activity to continue or be repeated and, if so, how?
- Whether the pupil showed anticipation of the activity and, if so, how?
- Whether the pupil initiated activity
- Which objects did the pupil locate successfully
- Did the pupil use one or both hands to find the object?
- Did the pupil select the identical objects and if so, which ones?
- The nature of the actions that the pupil was able to perform independently
- Actions the pupil was able to perform following modelling / prompting
- Did the pupil show recognition of a familiar toy or object by repeating the exploratory actions he used with that object previously?
- The setting conditions – the environment, including the presence of any visual or sound distractions; who was working with the pupil; the pupil's position; the physical and emotional state of the pupil, etc.

### **Resources**

See list of equipment for developing tactile skills in Appendices  
**Strategy Ref. OP / FM / PS**

## **V8: TO REACH OR MOVE TOWARDS A SEEN OBJECT**

In a visually directed reach or movement the pupil uses his hand/s or body to swipe, kick, reach or move towards the object he sees.

### **Suggested activities**

- Observe the pupil playing. Note whether he looks at his hands, and objects in or near them
- Place a light source, toy, cup, food, or other visually stimulating object within reach of the pupil. Objects may be suspended above or in front of a pupil who finds limb movement easier from a lying or sitting position. The object hanging frame may be used for this purpose. Observe and note any reaching, swiping or body movement towards the stimulus.
- Repeat, placing preferred objects in different areas of the pupil's visual field
- If the pupil has independent mobility:
  - Switch on an item of light stimulation equipment eg. Bubble tube, fibre optics before the pupil enters the MSE. Observe the pupil's response.
  - Place a large, visually attractive toy/object in the room (presented singly on a contrasting background) before the pupil enters. Observe the pupil's response.

### **What to record**

- The distance between the pupil and stimulus
- Whether the pupil fixates visually on the stimulus
- Any consistent body or limb movement in response to a visual stimulus
- Movement / reaching towards stimulus
- Degree of accuracy in reaching – note under or over reaching, too far right, left, below, above
- Whether visual contact is maintained, or whether the pupil looks or turns away whilst reaching.
- The setting conditions – the environment; the materials used, including their size and colour; the pupil's emotional and physical state.

**NOTE:** Pupils with sensory motor integration problems and central vision impairment will often turn away whilst reaching for an object.

### **Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / PS / CM**

## **V9: TO VISUALLY RECOGNIZE AND DISCRIMINATE 3D IMAGES**

The assessment of recognition looks at the pupil's ability to demonstrate visual processing of shape, colour and form and use his visual memory to associate what he sees with previous experiences. Recognition might be demonstrated by an appropriate response being made such as excitement on seeing a parent, opening mouth on seeing approaching food or drink, or a display of rejection on seeing something unpleasant.

The assessment of discrimination looks at a pupil's ability to match, compare and select stimuli.

Some pupils may have the ability to see and pick up very small or low-contrast materials, but are not able to process visual information effectively enough to recognize objects or images.

### **Suggested activities**

- Observe the pupil's response when a familiar person enters the room. Avoid other clues such as speaking, familiar perfume, etc. This is most effective if the person is out of their usual context eg. A pupil might expect and therefore recognise his parent at home, but perhaps not in the classroom
- Place a favourite object or piece of food among two or three other objects. Observe pupil's response. Avoid food or drink which has a strong smell. Observe the pupil's speed of response; if there is a delayed response it may be that the pupil is relying on tactile or sound clues to recognise objects.
- Observe the pupil's response when he enters a room containing a small group of people. Ask the pupil "Where is...?" ( Mum, friend's name, teacher's name, etc). Avoid other clues.
- Place two or more objects of similar size and contrast within reach. One object should be familiar and of special interest to the pupil. Observe whether the pupil selects the favoured object. A biscuit/crisp/sweet placed on a dark surface among paper shapes provides a more visually challenging discrimination activity.
- Repeat the previous activity, varying the position of the objects.

### **What to record**

- Pupil's response to a familiar person – visual contact, facial expression, body language, etc. Compare this to the pupil's response to an unfamiliar person
- Pupil's response to a familiar object
- Whether the pupil appears to look from one object to another before reaching towards the preferred, or requested, object
- If the same result is noted after varying the position of the objects
- The distance between the pupil and objects/person at the point of recognition
- Setting conditions – the environment; the materials used, including their size and colour; the emotional and physical state of the pupil.

NOTE: Where a pupil is unable to move or reach towards the familiar object/person, observe eye movements, sounds / vocalizations, or signs of excitement when familiar items are presented.

**Resources**

- A variety of objects which are familiar to and motivating for the pupil
- See also list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / FM / OP**

## **V10: TO VISUALLY RECOGNISE AND DISCRIMINATE 2D IMAGES**

This area examines the pupil's ability to recognize and discriminate two-dimensional representations of familiar people and objects. Clear, simple photographs or symbols may be recognised as representations of familiar items.

### **Suggested activities**

- Using a computer, show the pupil good quality digital photographs of parents, friends, pets, favourite toys, food and so on and observe the pupil's response. Compare with the pupil's response to unfamiliar images.
- Using simple colour photographs of objects that are familiar to the pupil, ask the pupil "Where is the...?" showing the pupil the real object as a clue if necessary. Start with one photo and one object, then progress to two photos. See if the pupil still recognises the item/s when shown black and white photographs. Observe pupil's response.
- If appropriate, use black and white symbolic representations, eg. Widgit symbols, of familiar items.

### **What to record**

- Pupil's response to an image of a familiar person displayed on a screen, monitor or large photograph
- Pupil's response to an image of a familiar object displayed on a screen, monitor or large photograph
- Whether the pupil selects a requested or preferred image when two are displayed. The pupil may indicate a choice by eye-pointing, reaching, moving head towards or smiling at the picture
- Whether the same result is noted after varying the position of the images
- The distance between the pupil and the image at the point of recognition
- Setting conditions – the environment (especially lighting / glare factors); the materials used including their colour and size; the emotional and physical state of the pupil

**NOTE:** Where a pupil is unable to move or reach towards the familiar image, observe eye movements, sounds / vocalizations, or signs of excitement when familiar images are presented.

### **Resources**

- Computer screen
- Good quality digital photographs to display on screen
- Good quality colour / black and white photographs
- WWS 2000 (Widgit) symbols
- Corresponding real objects

**Strategy Ref. TFL / FM / OP / CM**

## **V11: TO VISUALLY PERCEIVE OBJECTS IN RELATION TO OWN POSITION AND IN RELATION TO EACH OTHER**

Depth perception is the ability to perceive objects at varying distances in relation to the individual's position, and in relation to each other. The pupil needs to be able to perceive both foreground and background in order for depth perception to be achieved.

### **Suggested activities**

- If the pupil is mobile, observe how he negotiates steps, curbs, etc. Are the pupil's feet lifted too high or not high enough? Does the pupil attempt to step up or down over shadows or contrasting shapes on the ground?
- Place a low bench or box on the ground for the pupil to step onto or over. Note accuracy of movement
- Place a strip of contrasting or fluorescent tape on the floor. Observe the pupil's response when asked to step over it
- Place a visually interesting object, toy, etc. or light at varying distances from the pupil and within the pupil's preferred area of visual field. Observe the pupil's reaching accuracy
- Encourage pupil to pat or swipe a suspended balloon, ball or other object hanging in front of them. Observe accuracy of swipe.
- Place squares of coloured paper on a plain card, add a wooden or plastic cube/ brick of the same size and colour. Does the pupil pick up the brick?
- The previous activity can also be carried out using coloured circles and a ball of the same colour / size

### **What to record**

- Pupil's response to steps, shadows and shapes on the ground
- Pupils success in recognizing a 3D object among 2D materials
- Accuracy of pupil's reach or contact with stimulus; note whether overreaching, under reaching or on target
- Distance between pupil and task
- Setting conditions – the environment; the materials used including their size and colour; pupil's emotional and physical state.

### **Possible reactions to look out for**

- Attempts to step over or avoid shadows or shapes on the ground
- Hesitation, over or under estimation of the depth of steps and curbs
- Accurate reaching/ grasping of objects within pupil's visual and reach field
- Pupil not able to distinguish between 2D and 3D materials
- Pupil consistently overreaches stimulus
- Pupil's reach consistently falls short of stimulus

### **Resources**

- Pupil's favourite objects
- 'Obstacles' for stepping over

- 2 D and 3D shapes of same colour as background material
- Activity arch for suspending items from
- Balloons, balls, etc. and string for suspending
- See also list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / FM / MSE**

## **V12: TO VISUALLY RECOGNISE SMALL DETAILS**

Visual acuity means the ability to recognise small details and is a measure of how sharp an image appears to the pupil.

It is very difficult to accurately assess the visual acuity of pupils with PMLD. Certain pupils with visual perception difficulties can only identify objects, and not pictures or symbols. Models of familiar objects, such as animals or cars are rarely successful as they are too far removed from the object they represent. Therefore small, real objects that are familiar to the pupil are usually far more appropriate for assessment and teaching purposes. Whatever materials are used, the assessment will only be valid if the pupil is familiar with them.

Any assessment based on non-standard materials cannot be compared with a clinical test, but observations made can be useful to the adults working with the pupil in selecting appropriate learning materials and personal items for the pupil.

### **Suggested activities**

#### **a) Size of object (visual awareness)**

Prepare a tray with the following foods:

- Marshmallow
- White chocolate button
- Yellow Smartie
- Rice Krispie
- White or yellow hundred and thousand

On a plain, dark background, place the foods singly, in front of the pupil.

If preferred, pieces of fruit, vegetable, cereal, cheese, etc. may be used, corresponding to the above sizes, and on contrasting backgrounds. Avoid foods with a strong smell as you want to assess the pupil's visual awareness.

NOTE: Awareness does not necessarily mean that the pupil sees enough detail, or processes visual information well enough to recognize objects.

#### **What to record**

- Which of the foods are consistently selected by visual means, noting their size
- The colour/shade of all materials used, including background material.
- Setting conditions (the environment; position of pupil; emotional and physical state of the pupil; lighting, etc.)

#### **Possible responses may include:**

- Pupil responds only to larger items
- Pupil responds to certain colour items (indicates colour discrimination or preferred contrast)
- Pupil responds to preferred food (indicates recognition)

(continued)



## **V12: TO VISUALLY RECOGNISE SMALL DETAILS (continued)**

This area also assesses the pupil's ability to recognize the small or fine details of an object or image that set it apart from other objects or images of a similar size, shape, function, etc.

### **Suggested activities**

#### **b) Awareness of small detail (visual recognition)**

- Use any small objects that the pupil is likely to respond to.
- Objects that are similar in size, shape, colour, etc. but which differ in small details
- Present two objects to the pupil, either on each of your hands, or on the table / wheelchair tray. You could present, for example, a button and a Smartie, or a piece of crisp and a piece of paper.
- Materials used for this assessment need to be individually chosen according to the pupil's preferences in order to elicit the best response from the pupil. Close observation of the pupil and asking the opinion of those who know the pupil well can aid selection of the most appropriate materials.

#### **What to record**

- Pupil consistently selecting a known preferred object / toy
- Pupil consistently selecting a photograph of a known preferred person eg. Mum, Dad, class friend, 1: 1 support assistant, etc.
- Pupil consistently selecting known preferred music from choice of CD cases
- Pupil consistently selecting known preferred story from a small selection of books
- Pupil consistently selecting a known personal item eg. own bag, coat, cup, etc.
- Setting conditions – the environment (especially lighting, glare and background factors); the materials used including their size and colour; the emotional and physical state of the pupil.

#### **Possible responses may include:**

- Pupil responding to larger items
- Pupil only responding to items of a certain colour
- Pupil only responding to items that contrast strongly with the background
- Pupil responding to known preferred items

#### **Resources**

- Selection of familiar and unfamiliar objects / toys including some known to be liked by the pupil
- Selection of good quality photographs
- Selection of books / CDs (in cases) including some of pupil's favourites
- Pupil's own personal items eg. bag, cup, hat, etc.
- See also list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / FM / CM**

## **V13: TO VISUALLY DETECT ITEMS OF LOW CONTRAST**

Contrast sensitivity describes the ability to detect objects of low contrast. Typical low contrast tasks in daily living activities include face recognition, seeing an object on a background of the same colour, walking down steps that do not have the edges highlighted, pouring milk into a white cup, etc.

### **Suggested activities**

- The activities and procedure described in the assessment of visual acuity can be followed, with emphasis on reducing the contrast between the materials used and their background, rather than on reducing the size of the objects.
- Place a yellow smartie on a black card, then on an orange card or a cream card, finally placing a yellow smartie on a yellow card. Fruit, vegetables, biscuit or cereal on different backgrounds could be used instead.
- If the pupil has previously shown a more positive response to a larger item, substitute this with appropriate background colour combinations.
- Present fluorescent objects against a dark background eg. carpet, Velcro board, etc. under UV light. Present the same objects against a dark background under normal lighting conditions. Gradually reduce contrast between object and background.
- Position the pupil on the floor on a plain carpet / surface. Roll different coloured balls towards and to each side of the pupil and observe his response.

**NOTE:** Always be aware of glare or light reflection – a pupil presented with a low contrast item may not be noticing the item itself but responding to a reflected patch of light on the background surface.

### **What to record**

- Which objects are noticed by the pupil
- The colour combinations of materials and backgrounds
- Distance of pupil from the object
- Size of materials used
- Areas of the pupil's visual field where objects are noticed/missed
- Setting conditions – the environment (including lighting conditions); materials used; the emotional and physical state of the pupil.

### **Resources**

- Background materials eg. plain coloured fabrics, paper, card, carpet, etc.
- Familiar objects of the same colour as background material
- See also list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / PS / CM**

## **V14: TO VISUALLY DETECT LOW CONTRAST OBJECTS ON A COMPLEX BACKGROUND**

Many pupils who have central vision impairment have difficulty with “figure/ground” discrimination. Although they may be able to see low contrast objects on a plain background, they may not notice objects on complex or “busy” backgrounds.

### **Suggested activities**

- Place a preferred or favourite item on a tray, table or floor covering that provides a plain background. Select a background with sufficient contrast in the light of your findings from V13.
- Place a preferred or favourite item on a patterned background which is a different colour from the object
- Place a preferred or favourite item on a patterned background which includes the same colour as the object
- The size of the object chosen should reflect the pupil’s responses to previous activities

### **What to record**

- Which objects are noticed by the pupil
- The colour of the materials and the background detail
- The distance from the pupil to the object
- The size of the materials used
- Areas of the pupil’s visual field where objects are noticed / missed
- Setting conditions – the environment (including lighting conditions); materials used; the emotional and physical state of the pupil.

### **Resources**

- Patterned background materials eg. wallpaper samples, carpet squares, fabrics, wrapping paper, etc.
- Objects of a different colour to the background material
- Objects of the same colour as parts of the background material
- See also list of equipment for developing visual skills in Appendices

### **Strategy Ref. TFL / RUP**

## **V1: TO SHOW AWARENESS OF LIGHT/OBJECTS WITHIN VISUAL FIELD**

Visual awareness means that the pupil is aware of something in his field of vision. The pupil may demonstrate this by a consistent change in behaviour, such as a brief pause, altered breathing pattern, vocalization, body, head or eye movement, or an attempt to look at or reach for the visual stimulus. A pupil displaying visual awareness does not necessarily display any visually directed movement, or recognize the things he is aware of.

### **Suggested activities**

#### **a) Awareness of light**

- Observe and note any changes in posture, behaviour or head/eye movement in response to natural light from windows and to changes in levels of sunlight.
- With the pupil in a darkened room, and taking care not to provide auditory or other information, switch on the room light using a silent switch.
- In a darkened room, switch on a torch, penlight or light emitting effect/toy within one metre of the pupil. Try presenting the light source from different angles.
- Use an additional stimulus with the visual one eg. Switch on the light, then stroke the pupil's hand. After this pattern has been established, observe whether the pupil anticipates the hand stroke as the light is switched on (eg. fingers/hand move).

#### **b) Awareness of objects**

- Present a bright, attractive object, such as a familiar toy, cup or food. Present it centrally and at the pupil's eye level. Ensure that the object is presented against a plain, contrasting background.
- Repeat with stimulus presented slightly lower, then slightly higher, then to each side of the visual field, and at different distances within one metre.
- Present a fluorescent object in a darkened room under UV light

**NOTE:** It is not uncommon for pupils to ignore, or be apparently unaware, when the object used is unfamiliar, when the pupil is distracted, for example by a sound, or if the pupil experiences seizures or "absences". It may be necessary therefore to reassess on different occasions and using a variety of objects/materials.

### **What to record**

- Eye or head movement (towards or away), blinking, closing eyes, change in breathing or body tension, or any other response to indicate visual awareness.
- In which areas of the visual field (if any) the response is observed.
- Whether the response is immediate or delayed and, if so, by how long.
- The distance between the pupil and the stimulus.

- The setting conditions – the environment; the materials used, including their size and colour and the background conditions; the pupil's emotional and physical state.

**Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. MSE / TFL**

## **V2: TO LOCATE A VISUAL STIMULUS**

Localisation means that the pupil, on becoming aware of a visual stimulus, turns his eyes or head / body towards it.

### **Suggested activities**

- Observe the pupil's response when someone enters the room
- Observe whether the pupil turns towards the window on entering a room
- Whilst the pupil is occupied, attract their attention by moving or waving
- Present a visual stimulus, within the pupil's reaching distance eg. a small torch, a toy, the pupil's cup, etc from the left, right, top and bottom areas of the visual field (no sound clues)
- With the pupil in a darkened room, switch on a localized light source eg. coloured torch, fibre optics, bubble tube
- Increase contrast and reduce visual distraction by using a fluorescent object under UV light in a dark room
- Try using an additional stimulus – eg a musical toy or instrument. Present the item within the pupil's field of vision before making the noise. This may encourage the pupil to attempt to locate it.

### **What to record**

- Eye or head/body movement towards stimulus
- Attempts to reach, or swipe/kick, towards stimulus
- Whether the response is immediate or delayed and, if so, by how long
- In which area of the visual field, if any, a response is observed
- The distance between the pupil and the visual stimulus
- The setting conditions – the environment; the materials used, including their size and colour; the pupil's emotional and physical state

**NOTE:** The pupil may not look directly at the stimulus if there is a loss of central vision. However, movement of the eyes, head or body approximately towards the stimulus would indicate the ability to localize.

### **Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / RE**

### **V3: TO FIXATE ON AN OBJECT OR LIGHT SOURCE**

Fixation is the ability to direct gaze on an object or light source and hold it steadily in view. This means that the pupil locates a visual stimulus and his eyes 'lock on' to it. The duration of fixation may be brief or lasting several seconds. The eyes often widen and become relatively still.

#### **Suggested activities**

- Observe the pupil's visual response to a familiar person (parent, carer, teacher). The person could attract the pupil's attention, by speaking or waving, then remain in a static position to allow the pupil time to fixate.
- Present a familiar / favourite object or light source within the pupil's reaching distance and wait for him to look at and fix his gaze on it.
- Attract the pupil's attention by presenting a musical instrument or sound-producing toy. Object or light source within the pupil's reaching distance. Encourage the pupil to visually locate the stimulus and fix their gaze on it. Maintain interest and encourage fixation by repeating the sound as necessary.
- With the pupil in a darkened room, observe his response to a non static light source, for example, an image on a television or computer screen, a bubble tube, projected image, etc.
- When assisting the pupil at mealtimes, hold the spoon or piece of food within the pupil's field of vision for a few seconds to see if he looks at it.
- Shine a torch on to a spinning holographic disc, diffraction roller shaker or mirror diffraction cube.
- Present fluorescent objects within the pupil's field of vision in a darkened room under UV light

#### **What to record**

- How long fixation is maintained
- Optimum distance at which fixation is achieved
- Position of the visual stimulus in relation to the pupil's eyes
- Whether eye contact is achieved with another person
- Whether the pupil fixates centrally or consistently looks slightly to the side, above or below the stimulus
- The setting conditions - the environment; the materials used, including their size and colour; the pupil's emotional and physical state.

**NOTE:** Pupils who have poor muscle / motor control may need additional head / neck support to aid visual fixation

#### **Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / RE**

#### **V4: TO TRACK A MOVING OBJECT, PERSON OR LIGHT SOURCE DURING HORIZONTAL, VERTICAL, CIRCULAR OR DIAGONAL MOVEMENT**

Tracking is defined as the ability to fixate and then visually follow a moving object, person or light source. The eyes stay on target during horizontal, vertical, circular and diagonal movement of the visual stimulus.

##### **Suggested activities**

- Observe the pupil's response to a familiar person moving across the room
- Turn the pupil slowly away from the person or object which is attracting their visual attention. Observe whether the pupil moves their eyes or head in order to maintain visual contact
- Hold a penlight, small torch, food item or favoured toy within the pupil's field of vision and within reaching distance. Allow time for the pupil to fixate. Move the stimulus slowly, first horizontally, then vertically, followed by a circular motion and, finally, diagonally
- At a distance of two to three metres from the pupil, repeat the exercise. A projected image, large rolling ball, travelling rope light, etc could be used as the stimulus

NOTE: Pupils with central vision impairment may experience difficulty tracking across the midline. If the pupil loses sight of the target allow time and use an extra clue to help him relocate it.

##### **What to record**

- Movement of head and/or eyes
- The 'arc' of the visual track, eg. from centre to left, right to centre, centre to top, right to left across midline, etc.
- Whether visual tracking is smooth or jerky
- At which point the pupil loses visual contact with the stimulus
- Time taken to relocate the stimulus and whether any additional clues were needed
- Distance between the pupil and the stimulus
- Whether both eyes appear to move together
- The setting conditions – the environment; the materials used including their size and colour; the pupil's emotional and physical state.

##### **Behaviours that may be observed when assessing a pupil's tracking ability**

- Eye movement-following the line of visual stimulus
- Eye movement stopping or starting at midline point
- Intermittent visual contact with the stimulus
- Unusual head/ posture changes (eg. pupils with nystagmus may do this in an attempt to control their eye movements)
- Success or difficulty in tracking within certain areas of the visual field
- Head tilt/turn in an attempt to maintain tracking whilst avoiding crossing the midline



### **Resources**

- A range of objects which are familiar to and motivating for the pupil
- See also list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / OP / FM**

## **V5: TO FOCUS ON AN OBJECT, PERSON OR LIGHT SOURCE AS IT APPROACHES OR MOVES AWAY**

Vergence means the pupil's eyes stay on target as an object, person or light source moves towards them (convergence) and away from them (divergence) i.e. when the target is moved through near, middle, far and distant space, both towards and away from the eyes.

### **Suggested activities**

- Observe the pupil's visual response to your approach. Move away from the pupil noting at what point visual contact is lost
- Present a small light source or object of interest to within 30cm of the face. Allow the pupil time to fixate. Slowly move the object closer observing the pupil's eyes and the point at which visual contact is broken. Slowly move the object away, observing the pupil's eyes and noting loss of visual contact.
- Using a brightly coloured ball or toy car observe the pupil's response as it approaches and moves away. Note the point at which the object appears to attract interest on approach, and when visual contact ceases as it moves away.
- To increase motivation use a sound producing object (eg. sound-light car; rustling crisp packet)
- To reduce distraction, use a fluorescent object or toy under UV light or a torch / penlight in a dark room.

### **What to record**

- Whether the pupil maintains visual contact with an approaching or retreating person
- At what point visual contact begins and is lost and whether it is constant or intermittent between these points
- At close range, whether there is any inward movement of both, or either, eyes in response to an approaching object
- Whether the pupil is able to follow approaching, or retreating objects more easily
- Any other response eg. blinking or reaching
- Unusual posture or head tilt (in the case of some eye conditions the pupil may be attempting to minimize blurred or double vision)
- The setting conditions – the environment; the materials used including their size and colour; the pupil's emotional and physical state

### **Behaviours that may be observed when assessing a pupil's vergence ability at close range**

- Both eyes move inwards (converge) or outwards (diverge) equally
- Movement of one eye only (inwards/outwards)
- Both eyes remain static
- It can also happen that a pupil is only able to follow between near and middle distance, or between middle and long distance.
- Some pupils are able to follow approaching stimuli only or retreating stimuli only.

**Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / OP**

## **V6: TO LOOK FROM ONE STIMULUS TO ANOTHER**

This involves the pupil making rapid eye movements from one stimulus to another. Normally a pupil will first be able to switch visual attention on a horizontal plane, ie from side to side. Later, on a vertical plane, ie up and down and finally near to far and vice-versa. This enables comparison of two objects. When three or more objects are included, the skill of scanning begins to develop.

### **Suggested activities**

- Observe the pupil playing or eating. Note the shift of visual attention between two items eg. toy/food and hand, toy/food and person present
- Present two visually attractive objects, sound toys or objects of special interest up to 20cm apart and within 50cm of the pupil's eyes, in a horizontal plane. Observe pupil's eye movements. Move or operate toy to encourage the pupil to look from one item to another.
- Position pupil between two light sources or hold two torches in front of the pupil. Turn each one on alternately, allowing time for the pupil to respond.
- Place a screen in front of pupil and make objects appear and disappear from behind it. Play peepo or use two puppets or torches.
- Repeat activities as above but present objects on a vertical plane.
- Give the pupil a toy to play with, then attract his attention with another visual stimulus at a distance of one metre away. (Two items of remote controlled light stimulation equipment would facilitate this)
- Whilst the pupil is looking at a distant stimulus, attract their attention with another object within 15cm eg. present a toy on the table or floor in front of the pupil. To ensure that the pupil is able to maintain interest in the distant stimulus, an adult could stand behind the pupil, presenting the second stimulus from that position.

### **What to record**

- Whether the pupil is able to shift attention easily between one stimulus and the other
- Whether the pupil uses a tracking or gross scanning-type movement to locate each stimulus
- Whether the pupil blinks to release fixation on the first object before moving to the second (an early stage in the development of this skill)
- Whether there is movement of the pupil's head or just the eyes
- The length of time of response (in seconds)
- The distance between the stimuli and their position in relation to the pupil
- Whether eye movements cross the midline, or whether the skill is only demonstrated when stimuli are presented within the same half of the pupil's visual field
- Whether the skill is demonstrated in all, or only certain planes – horizontal, vertical, near to distant, or distant to near
- The setting conditions – the environment; the materials used including their size and colour; the pupils emotional and physical state

**Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / RUP / CM**

## **V7: TO VISUALLY SEARCH / SCAN A GIVEN AREA**

This aspect assesses the pupil's ability to visually search a given area. The pupil looks from one thing to the next, in order to acquire information about his immediate environment, or to locate a desired object or person.

### **Suggested activities**

- Observe the pupil as they enter an unfamiliar environment. Note whether they look from one object, or area, to another within the room
- Place a tray containing three or more toys or objects in front of the pupil. These may be placed in a line from left to right, a line from near to distant, or a combination of both. Use objects of approximately equal size and contrast. Look for evidence of searching from one object to another. The pupil may then select one object, either to visually fixate upon, or to touch/pick up
- Present a number of objects, including something you know the pupil really likes eg. a favourite toy, soundmaker, cup containing a drink, etc. Ask the pupil to find their favoured object (use verbal/gestural prompt as necessary)
- Alter the placement of the objects and repeat the activity
- Re-position the objects so that they are presented in different areas of the visual field
- Present stimuli on a vertical plane using a magnetic or velcro board with appropriate materials or by using items attached to the object hanging frame.

### **What to record**

- Movements of the eyes/head to indicate searching from one stimulus to the next
- Attempts to reach towards or consistently select a particular object (evidence of visual recognition)
- Whether searching appears systematic, ie eyes fixate equally on each object in turn
- Whether the pupil searches in a similar sequence, irrespective of the order in which the objects lie eg from left to right, top to bottom, near to distant or vice-versa
- Whether the pupil appears to consistently choose a sequence according to colour, size or another factor
- The distance between the pupil and the stimuli
- Any areas which the pupil seems to ignore, or appears to have particular difficulty seeing/searching eg. at a certain distance away, to his right or left, or in the peripheral (edge) or central areas of the visual field
- The setting conditions – the environment; the materials used including their size and colour; the pupil's emotional and physical state.

### **Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / CM**

## **A1: TO SHOW AWARENESS OF AN AUDITORY STIMULUS**

The reaction of startling to a sudden or unexpected noise is often given as the first step in a pupil's developing auditory skills. However, startling is not a skill in itself, it merely demonstrates that a pupil is able to hear a sudden sound and is capable of making an involuntary or reflex response to that sound. Observing how a pupil responds to a variety of auditory stimuli is however very useful in helping to assess the extent to which a pupil can hear a sound and respond to it. A pupil may be able to hear one particular sound but unable to hear a sound pitched at higher frequency for example and this information is important for building up our knowledge of a pupil's idiosyncratic needs and abilities.

To test whether or not a pupil can hear a particular sound it is necessary to observe how the pupil responds to that stimulus, remembering to note any changes in the pupil's behaviour as a consequence of the auditory stimulus being operated, eg. pupil stills, vocalizes, increases body movement, etc. It is important to avoid giving the pupil additional sensory clues eg. the sight of the sound maker or the feel of air movement as the sound maker is operated as this could mean that the pupil is responding to a visual or tactile stimulus rather than to the sound itself.

### **Suggested activities**

- Make a loud single sound eg. bang a drum, crash cymbals, slam a door, a loud shout/scream, drop a metal object on to a metal surface, strike a chime bar, sound a hooter, blow a whistle, 'pop' finger against inside of mouth
- Make sounds by repeated banging of eg. two coconut shells together, a metal or wooden spoon on a saucepan or upside down tin, two wooden bricks together, plastic beakers together, your hands on the table, your feet on a hard floor surface, two saucepan lids together
- Make a sound by dropping eg. a ball into a metal bin, marbles into a tin, objects into a bowl of water, spoons on to a tray, buttons into a tin or plastic container
- Make a sound by tapping eg. a stick on a table, a wooden or metal spoon on a bowl, your fingers on a drum, your fingers on a tin tray, two claves together, a wood block
- Make a sound by shaking eg. bells, a maraca, a bunch of keys, a tambourine, a cabassa, a container of buttons, rice, dried beans etc, paper streamers, space blanket, rainmaker
- Make a sound by scrunching eg. greaseproof paper, cellophane, tissue paper, inside tray of a chocolate box
- Make a sound by blowing eg. a recorder or whistle, a mouth organ, on paper over a comb, a party horn, on wind chimes, a raspberry on the back of your hand, across the top of an open empty bottle
- Make a sound by striking eg. a gong/cymbal, a cow bell,
- Make a sound by scraping eg. a washboard with thimble, a guiro, fingernails on hard surface, sandpaper on wood,

## **A1: TO SHOW AWARENESS OF AN AUDITORY STIMULUS (continued)**

- Make a sound using your voice, eg. hum, talk, whisper, laugh, sing, growl

### **What to record**

- The setting conditions – the environment, including presence/ absence of background noise
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- The sound makers used
- The intensity of the sound presented, eg. loud, very loud, normal levels, quiet, very quiet
- The speed of the sound presented eg. very fast, slow, etc
- The direction of the sound presented in relation to the pupil eg. to left, right, in front, behind pupil
- The distance of the sound source from the pupil
- Whether it was one single sound or a sound made up of many repeated beats
- Whether it was a short sound or a long sustained sound
- Whether the pupil needed any additional clue or prompt to alert them to the presence of the sound and if so what form did it take
- The pupil's response to the sound
- The time it took for the pupil to respond to the sound
- Which sounds the pupil particularly liked or disliked

### **Possible responses that may indicate pupil's awareness of sound**

- Stilling
- Increased body movement
- Change in facial expression
- Smiling
- Vocalizing
- Eyes blinking
- Eyes widening
- Eye pointing
- Head turning
- Distress (if so cease the activity and engage pupil in an activity they are known to enjoy)

### **Resources**

See list of equipment for developing auditory skills in Appendices

### **Strategy Ref. TFL / MSE**



## **A2: TO EXPLORE SOUNDS USING A RANGE OF ACTIONS**

Pupils need to discover the relevance of sounds in their environment through active exploration of the sounds that objects and people can make. This is important for helping pupils make sense of their environment and enabling them to anticipate, and therefore gain some control over, the events that take place within it.

### **Suggested activities**

- Explore the sounds of objects used in the pupil's everyday routines eg. pouring juice into cup; scraping spoon in dish
- Explore the sound properties of objects using a variety of actions eg. knocking, banging, tapping, shaking, scraping, stroking, rubbing, swiping, pushing, tipping, rotating, rolling, squeezing
- Explore the sound properties of objects using an implement eg. banging a drum/cymbal with a beater, striking a chimebar with a beater, stroking a xylophone with a beater
- Explore body sounds eg. voice sounds; lip/tongue sounds; hand sounds (clapping, rubbing hands together, tapping hands/fingers on different surfaces, scratching with fingernails on a hard surface, etc.); tapping/rubbing/stamping feet on different surfaces. Try doing some of these with the pupil in front of a big mirror.
- Explore a variety of musical sounds using percussion and keyboard instruments

### **What to record**

- The setting conditions – the environment, including presence/ absence of background noise
- The physical and emotional state of the pupil, including positioning, state of alertness, ability to manipulate objects, etc.
- The objects/ sound makers presented to the pupil and how they were presented eg. on pupil's lap, placed in their hand, placed on tray of wheelchair or on table in front of them, etc.
- The level and type of assistance (if any) needed by the pupil to manipulate/explore the object
- The actions the pupil used to explore the object/sound maker
- The pupil's response to the sound made
- Which sounds the pupil particularly likes or shows special interest in
- Which actions the pupil repeated in order to make the sound again

### **Possible responses**

- Pupil moves hand to touch, grasp, move object
- Pupil performs the same action on each object, some of which produce a sound as a result
- Pupil performs a variety of actions in order to manipulate and explore the object
- Pupil changes behaviour on hearing sound made as a result of his actions on object
- Pupil repeats an action or actions in order to make the sound again

### **A3: TO TURN HEAD / BODY TO LOCATE A SOUND SOURCE**

The ability to locate the source of a sound and orientate oneself to it from the viewpoint of direction, distance and speed is important for the development of communication and mobility and also from the point of self preservation and being able to have some control over the environment.

#### **Suggested activities**

- Present individual soundmakers from different directions in relation to the pupil.
- Wait for the pupil to respond to and locate the sound source by eye pointing, turning head / body towards the sound, reaching towards the sound.
- Experiment using different types of sound eg. voice sounds; environmental sounds; musical sounds etc. or any of the suggestions listed in A1.
- Observe whether the pupil can follow a moving sound as it is played in different parts of the room
- In a group activity, see if the pupil can indicate who is making the sound when pupils/adults (each with a sound maker) are positioned at an equal distance from the pupil in the centre but in different directions ie. to side, behind, in front, etc.

#### **What to record**

- The setting conditions – the environment, including presence/ absence of background noise
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- The sound makers used
- The direction of the sound presented in relation to the pupil eg. to left, right, in front, behind pupil
- The distance of the sound source from the pupil
- The intensity of the sound presented, eg. loud, very loud, normal levels, quiet, very quiet
- The speed of the sound presented eg. very fast, slow, etc
- Whether it was one single sound or a sound made up of many repeated beats
- Whether it was a short sound or a long sustained sound
- Whether the pupil needed any additional clue or prompt to alert them to the presence of the sound and if so what form did it take
- The pupil's response to the sound
- The time it took for the pupil to respond to the sound
- Which sounds the pupil particularly likes/dislikes

#### **Possible responses that may indicate pupil's ability to locate sound**

- Eye pointing towards sound source
- Tilting head towards sound source
- Turning head to face sound source
- Turning head and body towards sound source

- Reaching towards direction of sound source

**Resources**

See list of equipment for developing auditory skills in Appendices

**Strategy Ref. TFL / MSE / PS**

#### **A4: TO REACH FOR A SOUND SOURCE PRESENTED FROM DIFFERENT DIRECTIONS**

It is important that pupils learn to integrate vision and touch with hearing in searching for and locating the source of sounds which have previously elicited a response.

##### **Suggested activities**

Stand near to the pupil and make the selected sound (trying not to let the pupil see the sound source itself) from different directions always keeping the sound item within the pupil's range of reach. Present the sound

- To left/right at pupil's ear level
- To left/right below pupils ear level
- To left/right above pupil's ear level
- In front of the pupil (behind your back if necessary)
- Behind the pupil
- Above pupil's head level
- Below pupil's chest level

Encourage the pupil to locate the source of the sound and reach towards it. Always give the pupil time (and assistance if necessary) to explore the sound maker once they have located it.

##### **What to record**

- The setting conditions – the environment, including presence/ absence of background noise
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- The sound makers used
- The direction of the sound presented in relation to the pupil eg. to left, right, in front, behind pupil
- The distance of the sound source from the pupil
- The intensity of the sound presented, eg. loud, very loud, normal levels, quiet, very quiet
- The speed of the sound presented eg. very fast, slow, etc
- Whether it was one single sound or a sound made up of many repeated beats
- Whether it was a short sound or a long sustained sound
- Whether the pupil needed any additional clue or prompt to alert them to the presence of the sound and if so what form did it take
- The pupil's response to the sound
- The time it took for the pupil to respond to the sound
- Which sounds the pupil particularly likes/dislikes

##### **Possible responses**

- Pupil reaches towards direction of sound source (any direction)
- Pupil only reaches to sounds presented from certain directions
- Pupil only reaches for sounds presented within a certain distance

**Resources**

See list of equipment for developing visual skills in Appendices

**Strategy Ref. TFL / MSE / CM / PS**

## **A5: TO RECOGNISE OR DISCRIMINATE A FAMILIAR VOICE OR SOUND**

Sounds are a vital part of the environment and are always present in some form or another. Those sounds that are important or significant to a pupil should be enhanced and made more consistent, so facilitating recognition, discrimination and the use of sound as a source of information about the surroundings.

### **Suggested activities**

- During any activity always give the pupil the opportunity to explore the sound properties of any items being used in order that they can assign meaning and significance to the sounds they hear (eg. environmental sounds, people sounds, musical sounds, activity/ object sounds)
- Observe the pupil to identify those sounds that seem to have particular significance for them or those sounds that they particularly enjoy/ respond positively to (see A1 and A2)
- Observe the pupil's response when he hears any of the identified sounds during the school day either in context or out of the usual context
- Identify key people in the pupil's school day eg. class teacher, support assistant, pupil in class, bus escort, etc and observe how the pupil responds when he hears that person's voice

### **What to record**

- The setting conditions – the environment, especially the presence/ absence of background noise
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- The familiar sound/voice the pupil responded to
- The direction of the sound/ voice in relation to the pupil eg. to left, right, in front, behind pupil
- The distance of the sound/ voice from the pupil
- The intensity of the sound/voice eg. loud, very loud, normal levels, quiet, very quiet
- Whether the pupil needed any additional clue or prompt to alert them to the presence of the sound and if so what form did it take
- How the pupil responded to the familiar sound/ voice
- The time it took for the pupil to respond to the sound/voice
- Whether the sound/ voice was present in its usual familiar context or not

Possible responses that may indicate the pupil's ability to recognize familiar sounds/voices

- Smiling
- Vocalizing
- Ceasing activity they were engaged in
- Lifting head, looking towards person/object that made sound
- Turning/moving towards voice/sound

## **A6: TO DEMONSTRATE RECOGNITION OF OWN NAME WHEN CALLED**

### **Suggested activities**

- The morning/afternoon 'Hello' or registration session is the ideal activity for rehearsing this skill. Remember to allow time within the routine for the pupil to respond to their own name. Note what behaviour the pupil uses to indicate that they have heard and recognized their name. Is the behaviour different to that when they hear another pupil's name being called?
- Songs and rhymes that incorporate the pupil's name – pause before singing/saying their name to see whether they will anticipate their name in the song.
- Stories that incorporate the pupil's name
- Turn taking games/activities using the pupils names
- Pupil 'news reports' – reporting to the rest of the class what...has done today/at the weekend
- Rhythm activities using a drum or resonance board, beating out the rhythm of the pupil's name
- Always call the pupil's name to alert them to your presence, when you are going to move them to a different place/position or when an activity is about to start

### **What to record**

- The setting conditions – the environment, especially the presence/absence of background noise
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- Who it was calling the pupil's name (familiar/unfamiliar)
- Whether the 'naming' activity was a familiar or unfamiliar one for the pupil
- The direction of the person calling the pupil's name in relation to the pupil eg. to left, right, in front, behind pupil
- The distance of the person calling the pupil's name from the pupil
- The intensity of the person's voice eg. loud, very loud, normal levels, quiet, very quiet
- Whether the pupil needed any additional clue or prompt to alert them to their name being called and if so what form did it take
- How the pupil responded to their name being called
- The time it took for the pupil to respond to their name being called

### **Possible responses to indicate pupil's recognition of name**

- Pupil stills in response to their name being called
- Pupil ceases activity they were engaged in
- Pupil smiles
- Pupil vocalizes
- Pupil increases activity/movement
- Pupil looks at, or in direction of, person calling their name
- Pupil reaches/moves towards person calling their name

**Resources**

See list of equipment for developing auditory skills in Appendices

**Strategy Ref. SI / MSE / RB / RUP**



## **A7: TO RESPOND TO RHYTHMICAL SOUND**

Music is a sound source that appears to have a fundamental appeal to almost everyone and it can be used in many ways to encourage listening skills and to elicit responses. It is also a vital tool for enabling pupils to integrate the auditory and kinaesthetic senses. Rhythm is the basis for vocalization and understanding spoken language. It helps a pupil to develop the ability to recognise changes in the pattern of sentences and words as they are being spoken

### **Suggested activities**

- Music and movement activities where the music imposes rhythm and continuity that is reflected in pupils' movements, whether these are active or passive. Use whole body movement to respond to the rhythm of the music eg swaying, rocking. Remember to try different types of music (rock, pop, waltz, reggae, drum and bass, country and western, folk, techno, etc)
- Activities where specific musical/rhythmical sequences are used to initiate and direct actions
- Action songs that provide a structure for simple actions such as clapping
- Rap chants with music based on Rap Pack booklets and CDs or create own
- Musical games that guide pupils through various action sequences
- Resonance board activities – pupil leading; adult leading; burst/pause sequence, etc.
- Adult beats a single, regular rhythm on a drum, wood block, etc. Tap the rhythm gently on the pupil's hand, shoulder or knee. Assist the pupil to mirror the rhythm on the table, floor, wheelchair tray or to clap their hands in time. Enrich the activity by incorporating a simple rhyme, rap or song in time with the beat.
- Beat out the natural rhythm of the pupil's name and assist the pupil in repeating the rhythm whilst their name is spoken out loud
- Prompt the pupil to beat out a sequence of beats and then copy the rhythm the pupil produces
- Use music from different cultures to introduce variations in rhythm and sound. Use percussion instruments to mirror the rhythmic sound patterns

### **What to record**

- The setting conditions – the environment, especially the presence/absence of background noise; whether individual or group session
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- The type/s of music the pupil seemed to prefer
- The sound source used eg. percussion instrument, recorded music
- How the pupil indicated response to rhythmic sound eg. vocalizing or moving in time with the music/ rhythm; beating a drum or tapping the table rhythmically

- How loud the music needed to be in order to elicit a response from the pupil

**Resources**

See list of equipment for developing auditory skills in Appendices

**Strategy Ref. RB / RUP / MSE / CN**

## **A8: TO RECOGNISE SIMILARITIES AND DIFFERENCES BETWEEN SOUNDS**

### **Suggested activities**

- Start with identical pairs of sound makers, one each for the adult and the pupil. Explore the sound qualities with the pupil and emphasise the concept of same.
- Introduce a different sound maker and play each one in turn. Emphasise concepts of same and different. Initially the difference should be very obvious eg a drum and a bell. Allow the pupil to explore the two sound makers and reinforce the concepts of same and different whenever there is the opportunity. Gradually introduce sounds that are closer in sound quality.
- Vary the activity by using voice and everyday environmental sounds
- As the pupil develops this skill, play sound matching games from a selection of paired instruments/sound makers and/ or matching a pre-recorded sound to a real sound
- Explore the difference between sound makers that make quiet/loud sounds.
- Compare the sounds of instruments that have low or high pitched sounds
- Show the pupil how to create loud/quiet sounds with the same soundmaker

### **What to record**

- The setting conditions – the environment, especially the presence/ absence of background noise; whether individual or group session
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- The sounds the pupil found particularly interesting
- Whether the pupil copied the sound the adult made with the same soundmaker
- Whether the pupil showed a change in behaviour when a different sound was introduced

### **Resources**

See list of equipment for developing auditory skills in Appendices

**Strategy Ref. RB / RUP / MSE**

## **A9: TO RECOGNISE THAT SOUND CAN BE USED TO REPRESENT AN OBJECT, ACTIVITY OR PLACE**

The fundamental aim of this section is to teach a pupil that sound can have real meaning. This information is of vital importance in the early stages of communication when pupils require the support of sensory clues to signal the beginning and end of activities and to enable them to anticipate changes taking place in their surroundings.

### **Suggested activities**

- Explore the sound properties of real objects used in everyday, routine activities. Draw the pupil's attention to the sounds these items make when used eg.
  - Door closing
  - Sound of tap running
  - Sound of liquid being poured into a cup
  - A spoon scraping on a plate
  - Sound of brakes being applied / released on a wheelchair
  - Rustle of a biscuit / crisp wrapper
  - Click of belt fastening on wheelchair/minibus seat belt
- Where possible use a consistent auditory cue to signal the start of or change to an activity or event, eg. the scraping of a spoon on a plate to signal mealtime. Observe the pupil for signs of recognition / anticipation indicating that he has made the connection between the auditory cue and the start of an activity.
- Use drama and out of school trips to introduce and reinforce the representative sounds of other objects, animals, etc. Allow the pupil plenty of opportunity to explore the sound properties of different objects within a range of settings.

### **What to record**

- The setting conditions – the environment, especially the presence / absence of background noise; whether individual or group session
- The physical and emotional state of the pupil, including positioning, state of alertness, etc.
- The sounds the pupil found particularly interesting
- Whether the pupil showed a change in behaviour when a different sound was introduced
- Whether the pupil indicated recognition/anticipation of an event when a sound was produced and if so which sounds did they show this response to?

### **Resources**

See list of equipment for developing auditory skills in Appendices

**Strategy Ref. RUP / OP / PS**

**COG.1: To produce an action or sound spontaneously within a defined environment that will respond to random movements**

**Suggested activities/ strategies**

- Provide easily accessible materials which will crackle, rattle, shine, tinkle, clatter, bang, etc. when touched
- Place materials for pupil to roll onto or kick/ knock which will provide a sensory effect
- Activities in hydro or swimming pool
- Moving on water bed or trampoline
- Pupil lying prone over wedge with assorted objects/ materials for exploration placed in front of him (objects contained by folding goal or paddling pool)
- Pupil lying prone over wedge with assorted objects/ materials for exploration placed on mirror tray on floor in front of him
- Pupil sitting in chair or lying on back on mat with objects for exploration suspended from hanging frame
- Pupil lies with head, shoulders and arms inside large open ended box or folding goal to explore items within it
- Suspend interesting objects, soundmakers, etc. from the mobile hanging frame and position pupil in front or under it (sitting or lying on back) so that their arm/leg movements will knock against the objects
- Position pupil on resonance board and place an assortment of objects around them to encourage movement and exploration

**Suggested resources**

- Hanging mobiles, chimes, etc.
- Soundbeam
- Mini environments with items attached to inside / suspended from top
- Folding goal
- Inflatable paddling pool
- Large mirror tray
- Resonance board
- Activity arch
- Space blanket
- Cellophane
- Bubble wrap
- Tinsel
- Chime balls
- Roller shakers
- Vibro cushion
- Metal spoons, saucepan lids, bunches of keys
- Items threaded onto string/ ribbon eg. large wooden beads, coloured cotton reels, play buttons, rings, etc.
- Collections of small items contained in Persil net bags that will rattle when knocked, lifted and dropped, etc.
- Spotlight for illuminating defined area

**Strategy Refs. MSE / R.E. / SB**

**COG.2: To experience and develop understanding of fundamental mathematical concepts and problem solving through exploratory, manipulative and play activities**

**Suggested activities/ strategies**

Use a variety of multi-sensory, motivating objects and materials for:

- Filling and emptying activities
- Stacking and building
- Throwing activities (including pushing, rolling and sliding objects)
- Reaching, grasping and fetching activities
- Tapping and banging
- Separating items
- Putting things together
- Placing and arranging items
- Experiencing sequences
- Losing and finding objects
- Exploring distances, quantities and weights
- Manipulating objects
- Making comparisons

**Suggested resources**

- Assorted containers eg. boxes, bowls, buckets, bags, plastic jars and bottles, trays, etc.
- Large and small items for filling / emptying out of containers
- Shiny, sparkly, brightly coloured and fluorescent items
- Assorted balls, Koosh balls, quoits and hoops, balloons, confetti, feathers, Frisbees, bean bags
- Velcro items
- Magnetic items
- Messy / creative materials eg. sand and water, play dough, soft stuff, cooked pasta, soap flake mix, etc.
- Items for banging eg. drums, cymbals, tins, boxes
- Pairs of items eg. gloves, socks, maracas, cymbals, etc.
- Stacking, building items eg. assorted bricks and blocks, cups, plates, bowls, boxes, etc.
- Construction items eg. Mega blocks, Duplo, Stickle bricks, Geostars, etc.
- Items for joining eg. giant popper beads, magnetic train carriages, etc.
- Multi-sensory stories with associated props for arranging and sequencing eg. The Very Hungry Caterpillar
- Big and small items eg. balls / balloons / boxes
- Long and short items eg. lengths of ribbon, sari fabric, beads, etc.
- Heavy and light items eg. wooden blocks / foam blocks; containers with feathers / marbles inside, etc.

**Strategy Ref. FM / PS / OP**

### **COG.3: To practise relating objects to their proper function**

#### **Suggested activities/ strategies**

- Use mirrors when washing, brushing hair, brushing teeth, eating and drinking, dressing, etc. to highlight function of objects being used in personal care and domestic activities
- Allow pupils time to look at, manipulate, listen to and smell objects used in different activities eg.
  - Mealtimes
  - Cooking; preparing snacks and drinks
  - Washing up
  - Personal care activities
  - Domestic tasks
  - Gardening
  - Art and music activities
  - Shopping
  - Hydrotherapy/ swimming
  - Physiotherapy activities
  - RDA activities

#### **Suggested Resources**

- Personal care items eg. hairbrush, bag, soap, towel, clothing
- Cup, plate, dish, cutlery, apron
- Squash bottle, milk carton, jug, biscuit tin
- Cooking utensils and equipment
- Washing up bowl, brush, liquid, tea towel
- Garden tools and equipment
- Shopping bags, money
- Art utensils
- Musical instruments
- Hydrotherapy aids, towel, costume
- RDA equipment eg. riding hat, boots
- ICT – switches used by the pupil
- CDs, tapes, videos

**Strategy Ref. FM / OP (See also Early Communication Skills O.R.)**

## **COG.4: To explore the properties of objects and materials, both natural and man made, and to notice differences**

### **Suggested activities/ strategies**

- Domestic and play activities that will encourage pupil to explore objects and materials with opposite qualities such as rough / smooth, hard / soft, shiny / dull, heavy / light
- Build opportunities for tactile exploration of objects and materials into movement activities and hand use programmes
- Listen to the sounds made by different objects and materials eg. loud, soft, high pitched, low pitched, resonant, etc
- Sensory stories with props that have different sensory properties eg. touch, sound, smell
- Exploring objects with different visual attributes eg. colours, dull / shiny, reflective, light / dark, etc
- Exploring properties of items connected with cooking, gardening and shopping activities
- Exploring found items from a trip eg. leaves, cones, bark, flowers, etc. from a visit to the park
- Give pupil opportunity to handle a variety of 3D solid shapes eg.
- Balls of different sizes / materials
- Cubes / blocks of different sizes / materials
- Cylinders of different sizes / materials
- Hoops and quoits

### **Suggested resources**

- Art and craft resources eg. paint, glue, play dough, clay, sand, glitter, collage materials, etc.
- Cooking ingredients
- Gardening utensils
- Musical instruments and soundmakers
- MSE and sensory equipment
- Balls (inflatable beach ball, physio ball, football, foam balls of different sizes, nobbly balls, xmas baubles, fluorescent balls, chime balls, etc.)
- Cardboard / plastic boxes of different sizes / surface texture
- Cylinders and tubes (physio roll, cardboard tubes, fluorescent sound tubes and cylinders, Zube Tube, Pringles tins, biscuit tins)
- Sorting boxes / trays
- Balloons filled with sand, rice, water, air, etc.
- Similar objects of different weights
- Stacking/ nesting cups/ boxes Balls (inflatable beach ball, physio ball, football, foam balls of different sizes, nobbly balls, xmas baubles, fluorescent balls, chime balls, etc.)

**Strategy Ref. MSE / TFL / FM**



## **COG.5: To explore groups or sets of objects with properties in common**

### **Suggested activities/ strategies**

- Place objects with properties in common together where pupil can explore them
- Hang or suspend objects with similar properties where pupil can reach, touch and explore them
- Listen to similarities in sound made by 'like' materials
- Use a resonance board to accentuate sounds
- Draw pupils attention to sounds, textures, smells, etc. that are the same
- Take it in turns to make the same sound with musical instruments
- Outings to collect items with similar properties eg. fir cones, leaves, pebbles, twigs, etc.
- Sensory journeys around school to find items with similar properties eg. yellow items, smelly items, noisy items, etc.

### **Suggested resources**

Sets of objects with similar properties eg. assorted:

- Brushes
- Necklaces
- Balls
- Bricks
- Gloves
- Bells
- Drums
- Spoons
- Cars
- Sound shakers
- Wooden items
- Metal items
- Furry items
- Shiny items

Items for containing similar objects for exploration eg.

- Assorted containers
- Feely bags
- Large cardboard box
- Activity arch
- Folding goal
- Deep sided trays, builders tray, mirror tray
- Inflatable paddling pool

Sensory stories with sets of props eg.

- The Very Hungry Caterpillar
- The Blue Balloon
- Handa's Surprise

**Strategy Refs. MSE / FM / RUP / OP / PS**

**COG.6: To gain information about the properties of objects and materials through practical activities involving tools. Pupils should be assisted to select and use the correct tools for the task.**

**Suggested activities/ strategies**

- MSE activities – operating different effects using switches
- ‘messy’ activities – allow pupil to explore properties of different substances in trays eg. soap flake mix, honey, wet icing sugar, cooked spaghetti, etc. using hands, fingers and simple tools eg. plastic play fork / knife, wooden spoon, plastic sand rake, etc.
- Cookery activities – using a variety of kitchen tools and actions to wash, cut, roll, chop, slice, mix, grate, pour, stir, heat, cool, etc. a variety of food and substances
- Gardening activities – using a variety of tools and actions to dig, sieve, plant, water, rake, etc.
- Design technology – using a variety of tools and actions to make items out of different materials including different 3D shapes (boxes, tubes, cones, etc.)
- Art and craft activities – using a variety of tools and mark makers to create pictures, displays, etc. using a range of media
- Music activities – using a variety of sound makers / beaters and different actions to create and explore sound properties of items
- Sand / water play activities
- Play dough / clay activities

**Suggested resources**

- MSE, equipment and switches
- Cookery – raw ingredients, cooked food, cooking utensils
- Gardening – wet and dry soil / compost, seeds, plants, bulbs, tools for different gardening activities eg. trowel, watering can, plant pots, etc.
- Drums, triangle, wood block, octachime, tulip block, chime bars, xylophone, etc. plus assorted beaters
- Mark making materials and tools including paint brushes, rollers, combs, printing tools, etc. for use with paint, collage materials
- Containers, scoops, sieves, tubes, rakes, etc for exploring water and wet / dry sand
- Junk modelling materials, collage materials, glue, glue sticks
- Clay, play dough, Soft Stuff
- Cutters, roller and shape / pattern makers

**Strategy Refs. MSE / SAD / FM / PS (& Early Communication Skills: MM)**

## **COG.7: To recognise the effects of their own actions on the environment**

### **Suggested activities/ strategies**

- Provide mini environments with interesting sensory objects and materials inside for the pupil to explore. These items should provide strong sensory feedback for the pupil's actions when they are touched, knocked, pushed, etc.
- Resonance board activities using the pupil's own sounds and movements to create 'music'
- Soundbeam activities (using movement and/or switches to create sounds)
- Provide toys and equipment which the pupil can activate to produce a sensory effect
- Use IT programs that produce dramatic visual and sound rewards when activated
- Use switch operated toys and effects
- Activities in the MSE using switches to produce light / sound / tactile effects
- Let the pupil operate electrical equipment using a portable switch controller and switch eg. food mixer, tape recorder, fan, etc. in practical activities or during multi-sensory stories
- Use single message voice output devices such as Big Macks to give the pupil the opportunity to respond to and/or give instructions or to take an active part in storytelling, etc.

### **Suggested resources**

- Mini environments eg. Little Room, big box, tent, etc.
- Objects and materials with strong sensory properties
- Soundbeam with / without switches
- Resonance board
- Touch screen
- Switch access software
- Switch operated toys
- Sound operated switch and microphone
- Sound activated toys
- Touch sensitive switches
- Switch mounting kit for maintaining switch in best position for pupil to utilise
- Switch operated visual, auditory, tactile effects eg. bubble tube, fibroptic cascade, solar projector in the MSE
- Portable switch controller
- Big Mack or other communication device

**Strategy Refs. MSE / SAD / RE / PS / RB / SB**

## **COG.8: To experience and develop awareness of the difference between one and lots of objects**

### **Suggested activities/ strategies**

- Exploring single object and group containing lots of the same objects
- Holding single small object in one hand and lots of small items in the other hand (using small net bag to contain)
- Blowing bubbles – one or lots over pupil
- Sprinkling confetti or feathers; one piece / feather or lots
- Sprinkling decorations onto an iced cake eg. one decoration or lots
- Containers holding either one single object or lots of items – empty them to observe difference between one and lots
- Filling containers with lots of the same item / tipping them out
- Filling carrier bags with one or lots of items – hook over pupils wrists or hands so they can feel the difference in weight
- Making one single sound or lots of sounds on a musical instrument
- Making one single movement or lots of movements eg. bounces on the trampoline or water bed; splashes in the hydro or swimming pool
- Inflating balloons – blow into balloon once or lots of times to note difference in size
- Placing one or lots of balls / balloons onto the parachute and tossing into the air
- Experiencing the effect of one single light source or lots of lights
- Participating in sensory stories and songs where you start with one single item and end up with lots of items
- Building towers with lots of foam blocks
- Filling a page with lots of printed shapes

### **Suggested resources**

- Musical instruments
- Bubbles and wand
- Balloons
- Balls
- Feathers
- Confetti
- Containers eg. boxes with and without lids, tins with lids, clear plastic sweet jars/ storage jars, carrier bags with handles suitable for hooking over pupils wrist
- Persil tablet net bags (to enable pupil to experience holding lots of small items in one hand)
- Parachute
- Resonance board
- Torch and travelling light rope or Christmas light net
- Objects for filling and emptying out of containers
- Big Mack switches to allow pupil to request one or lots
- Paint and printing blocks / stamps

**Strategy Ref. TFL / FM / CN**

## **COG.9: To experience and develop awareness of counting in practical and play situations**

The experience of counting for pupils with PMLD will focus mainly on the activity of 'tagging' each item with an action and/or sound as the adult counts or uses sequence / number words.

### **Suggested activities/ strategies**

- Dropping items into containers – the sound of objects being dropped can be linked to sequence or counting words
- Pointing to a series of people / objects, one by one with a torch
- Touch / point to / pick up / move objects in turn as adult uses sequence / counting words
- Line of up to 5 small drawers or boxes with lids to put things in sequentially
- Row of Big Mack switches with 1, 2 or 3 recorded on to them. Incorporate into games where pupil selects a switch to press and receives for example, 2 bounces on the trampoline, 3 bangs on the drum, 1 brick to put on the tower, etc.
- Offer pupil a choice between 1, 2 or 3 items
- Participating in sensory songs and stories with counting element using props eg. The Very Hungry Caterpillar
- Fixing pupils' photographs on to a washing line or Velcro line during registration activities
- Counting when dressing pupil eg. body parts and clothing items
- Movement activities with an adult eg. counting while clapping, stamping, patting knees, etc.
- Counting while putting objects in and taking objects out of containers
- Counting while building a tower of bricks
- Counting the number of bounces on the trampoline
- Counting while pouring / giving out drinks to the group
- Counting candles on a birthday cake and clapping age
- Counting sounds on the resonance board
- Counting beats on percussion instruments

### **Suggested resources**

- Number stories and songs with accompanying props
- Photos of pupils in registration group
- Washing line and pegs
- Velcro board
- Small drawers / boxes with lids
- Assorted containers for putting in / taking out items
- Items for building, stacking, joining, placing in containers
- Resonance board
- Percussion instruments
- Big Mack switches

**Strategy Ref. FM / CN / RUP**

**COG.10: To participate in activities where items are added or taken away so experiencing increase and decrease**

**Suggested activities/ strategies**

- Experience being part of a group that gets bigger / smaller eg. musical chairs game; whole class activities dividing into small groups
- Musical counting games where pupils join in one at a time eg. One Elephant Went Out to Play; The Farmer's in His Den
- Target games where pupils collect tokens for the number of 'hits'
- Group sessions around the resonance board, joining in with tapping one by one and stopping one by one
- Using percussion instruments – one pupil starts to play followed by another pupil, then another, then each pupil stops playing in turn until all have stopped
- Handing round tray of drinks or plate of biscuits with each pupil taking one
- Collecting empty cups onto tray
- Adding one more object, toy, shape, picture or sound to a collection eg. one more brick to a tower of bricks
- Adding one more cup of water, lentils, etc. to a bowl until it overflows
- Filling and emptying containers
- Using switches to illuminate light sources eg. three bubble tubes, then switch them off one by one

**Suggested resources**

- Target games and tokens
- Props for number songs/ stories
- Washing line and pegs
- Percussion instruments
- Resonance board
- Foam bricks
- Giant popper beads
- Magnetic train set
- Switches and light effects
- Assorted objects for collecting and distributing and containers for collecting them in / on

**Strategy Ref. TFL / FM / CN / RUP / OP**

**COG.11: To establish a pattern of mutual interaction with an adult. Pupil indicates/ signals that he wants the activity to continue or cease**

**Suggested activities/ strategies**

Establish pupils favourite activities that could be used for stop / start activities, turn taking games and sequences, etc. For example:

- Musical activities using percussion instruments
- Wearing hats, wigs, headbands
- Hiding behind scarves
- Moving hands to operate hand puppets
- Clapping, stamping, tapping games
- Imitating pupils facial expression, movements or vocalisations
- Using switches to operate light effects etc.
- Take it in turns to produce sounds using the Soundbeam
- Turn taking with objects eg. building a tower of big foam bricks; submerging a ball under water and releasing it to make it pop up; rolling a ball to each other; shaking the space blanket or mini parachute
- Rebound activities
- Resonance board activities
- Taking it in turns to blow bubbles
- Making sounds into a microphone or voice changer

**Suggested resources**

- Percussion instruments
- Hats, wigs, silly glasses
- Scarves, large pieces of fabric
- Hand puppets
- Soundbeam
- Resonance board
- Microphone and amp
- Voice changer microphone
- Bricks, balls
- Water tray
- Bubbles
- Space blanket
- Large mirror

**Strategy Ref. TFL / FM / RUP**

## **COG.12: To experience and become aware of repeating patterns and sounds**

### **Suggested activities/ strategies**

- Sessions on the resonance board –maintain silence and wait for a response; create a sequence using the pupils own actions or sounds
- Make sound into a Zube tube, microphone or karaoke machine – give to pupil to repeat sound
- Experience repeating rhythms on the resonance board
- Participate in rhythmical drumming sessions
- Call actions out loud in time with movement eg. clap clap, stamp stamp, clap clap
- Repeat sound sequences using the sound beam
- Rap activities involving repeating sounds and phrases
- Sensory stories and songs with repetitive actions, sounds and phrases
- Art activities using sponges, objects, fruit, vegetables, etc for printing repeating patterns
- Arranging real objects in patterns / sequences
- Making repeating patterns using switches and light effects in the MSE

### **Suggested resources**

- Stories and songs with repetitive actions/ phrases
- Big mack switches for recording sounds / phrases on to
- Resonance board
- Soundbeam
- Assorted drums and other percussion instruments
- Rap Pack Activity Pack
- Zube Tube
- Microphone and amp
- Karaoke machine
- Switches and light effects in MSE
- Different coloured paints; objects for printing with
- Collage shapes, glue for sticking shapes onto paper in a repeat pattern

**Strategy Ref. RUP / RB / SB / CN**



**COG.13: To use their whole body to experience and show awareness of different shapes, sizes and changes of movement and position**

**Suggested activities/ strategies**

- Body awareness activities
- Music therapy (moving to music with an adult partner)
- Hydrotherapy activities
- Parachute games
- Rebound activities
- Jabadao creative movement activities
- Sound beam activities
- Resonance board activities
- Listening to the sounds their movements make whilst on a resonance board
- Moving between / under / over obstacles
- Moving on different pieces of equipment mats, wedges, physio balls and rolls
- Experience changes of position with whole body – up / down, over / under, high / low, behind / in front / next to
- Movement sessions with an adult to assist pupil lifting arms, moving legs, stretching and curling, rolling over on to side, front, back, etc.
- Moving / travelling in confined spaces and wide open spaces
- Stretching arms wide to receive a large item eg. physio ball, large empty box, etc.

**Suggested resources**

- Parachute
- Trampoline
- Soundbeam
- Resonance board
- Jabadao equipment eg. lengths of sari type fabric; ribbon sticks; streamers; giant balloons; body balls; floating scarves, Theraband; Lycra bags (eg. Pantomima)
- Screens, posts, markers to create obstacles
- Bubble wrap or space blankets for rolling over
- Large physio ball, rolls, wedges

**Strategy Ref. S.I. / RE / PS / FM**

**COG.14: To develop an understanding of the position of objects in space and the relationships between them**

**Suggested activities/ strategies**

- Exploring near objects
- Reaching for / swiping at suspended objects
- Passing objects through a space
- Orientating towards an object
- Moving objects in space
- Changing shape of object
- Exploring groups / collections of objects
- Looking at objects / shapes from different angles
- Moving and rotating shapes
- Pulling apart and putting together shapes
- Matching shapes to spaces
- Making shapes
- Exploring position of shapes eg. inside one another, next to, in front, behind, above, below, etc.
- Changing the position of shapes
- Shapes near and far away eg. kites, balloons, paper aeroplanes
- Exploring shapes in a sequence / spatial progression
- Exploring 2D and 3D shapes

**Resources**

- Activity arch for suspending interesting objects / shapes from
- Familiar objects that are motivating to the pupil
- Hats, gloves, slippers
- Objects and shapes for passing through spaces eg. hoops, tunnels, funnels, tubes, archways, open ended boxes, etc.
- Items for changing shape eg. play dough, paper for crumpling, stretchy materials, sponges, balloons, etc.
- Balls, cylinders, toy vehicles, spinning toys
- Activity arch, mobile frame
- Kites, paper gliders, balloons, floating scarves, parachutes
- Collections of objects eg. a row of toy cars; dish full of oranges; pile of bricks, etc.
- Sand tray, deep sided trays, builder's tray
- Items for joining and separating eg. Velcro or magnetic items
- Shapes for matching with spaces eg. eggs / egg box; letters / post box
- Junk modelling materials eg. boxes, cardboard tubes, packaging, etc.
- Objects for dropping, sliding, rolling, pushing, pulling, rotating, turning, etc.
- A range of surfaces for moving objects on
- Mark making materials for printing 2D shapes with 3D objects

**Strategy Ref. TFL / FM / PS / OP**

**COG.15: To experience activities which reinforce concepts of shape, size and weight in a range of learning situations**

**Suggested activities / strategies**

Provide opportunities for pupils to explore the shape, size and weight of a variety of objects, materials and substances. Planned teaching of these concepts should ideally take place within practical activities built into cross-curricular schemes of work or topics.

- Activities to develop hand function eg. experience holding / grasping items of different shape, size and weight
- Using two hands to hold or pick up bigger / heavier items
- Experiencing the size and weight of different items placed on pupil's lap eg. giant physio ball, huge cardboard box, etc. compared to smaller, lighter versions
- Experience the difference in weight of containers filled with different items / substances eg. balloon filled with air / water / sand
- P.E. activities using small apparatus eg. balls, hoops, quoits, beanbags, giant dice, etc.
- Simple target games; throwing items of different size and weights at or into different shaped targets
- Cookery sessions eg. using different sized containers and implements; weighing items for cooking; using different shaped cutters for pastry and dough; using different sized / shaped moulds for jelly, lollies, cakes, etc; look at and feel the shape, size and weight of different food items, etc.
- Gardening activities eg. putting compost in different sized / shaped containers; feeling different weights of filled / empty containers; empty / full watering cans of different sizes
- Interactive storytelling sessions which include concepts of shape, size or weight eg. The Blue Balloon; The Enormous Turnip, etc.
- Sand and water activities – filling, moving and emptying different shaped / sized containers; experiencing heavy and light, empty and full, etc.
- Off-site activities such as shopping eg. filling carrier bags with heavy or lightweight items – hook over pupils wrists or hands so they can feel the difference in weight; exploring the shape, size and weights of different packages in the shop

**Suggested resources**

- Items for grasping, holding, dropping and throwing
- Beanbags, balls, quoits, hoops, rods, cones, etc. of different sizes
- Boxes and containers of differing sizes and shapes
- Physio balls, rolls, wedges, etc.
- Cooking ingredients
- Balance / weighing scales
- Gardening tools, planting containers, etc.
- Cans, cartons, tins of food and drink
- Sand and water tray and containers, moulds, etc.

**Strategy Ref. TFL / FM / PS**

**COG.16: To recognise changes in sound including: volume, pitch, tempo; organised or random sounds, single or multiple sounds, short or long sounds**

**Suggested activities/ strategies**

- Activities on the resonance board using stopping and starting, sound and silence, rhythm, pitch and volume
- Create silence for the pupils to listen to their own and each others soundmaking (Soundabout activities)
- Creating sounds with the Soundbeam using body movements or switches to create and change sounds
- Listening to music of different volume, tempo, pitch, rhythm, etc.
- Taking part in musical activities using a range of instruments and soundmakers to explore changes in rhythm, pitch, volume, etc.
- Listening to and taking part in sound stories / poems using interactive storytelling techniques eg. call and response, rhyming sounds, repetitive phrases, etc.
- Using intonation and emphasising certain sounds / phrases during story telling and poetry sessions
- Creating sound compositions / raps / chants, etc, based on the pupil's sounds and vocalisations. Get other pupils / staff to repeat the sounds or use a tape recorder or loop device

**Suggested resources**

- Resonance board
- Soundbeam
- Percussion instruments eg. drums, wood block, tambourine
- Tuned percussion instruments eg. hand chimes, chime bars, xylophone, hand bell set
- Assorted whistles, recorders, etc.
- Slide whistle
- Electronic keyboard
- Microphone and amplifier
- Voice changer module
- Tape recorder
- Loop device
- Sound stories eg. We're Going on a Bear Hunt; Dinosaurumpus
- Rap Pack Activity Pack

**Strategy Refs. TFL / SB / RB / RP**

**COG.17: To notice features in their immediate environment and to develop an awareness of the features peculiar to different environments**

**Suggested activities / strategies**

Identifying rooms / areas within school / classroom by their distinguishing sounds, sights, smells, objects, etc. Wherever possible, highlight and draw pupils attention to those sensory features which remain constant. For example:

- Sound of photocopier / telephone ringing in reception
- Toilet flushing or water running in the personal care room
- Light source (or darkness) in the sensory room
- Smell and sounds of cooking in the food tech. Room / dining hall
- Mats, trampoline, physio equipment in the hall
- Books and soft seats in the library; listening to stories
- Visiting places with distinguishing sensory features eg. swimming / hydrotherapy pool
- Exploring the consistent sights, sounds and textures of the school playground
- Collecting objects, photographs, sound recordings, video, etc. of a visit to highlight distinguishing features, aid recall and to use for repeat / follow up visits
- Create sensory trails around school using appropriate sensory markers to define certain areas and the activities / events which take place there

**Suggested resources**

Repeated visits to any of the following:

- Swimming / hydrotherapy pool
- School hall, reception area, MSE, etc
- School playground
- Bakery
- Delicatessen
- Garden centre or florists shop
- Pet shop
- Bowling alley
- Soft play centre
- Park
- Music shop
- Farm
- Café
- Chemist shop
- Greengrocers
- Ironmongers

**Strategy Ref. RE / TFL / PS**

**COG.18: To recognise and anticipate the sequence of events within an activity or within the school day**

**Suggested activities/ strategies**

Provide consistent use of situational cues, objects of reference or symbols as appropriate to the individual pupil's level of communication and symbolic understanding to inform them of the next activity or event. For example:

- Items used for registration eg. set of photos of pupils in class; Big Mack for responding to own name, etc.
- Feel and smell of personal items used for swimming eg. costume, buoyancy aids
- Smell of lavender oil for massage
- Torch for sensory room activities
- Drum or chime bar for music activities
- Purse and rattling coins for shopping
- Own coat for going out
- Own bag for going home
- Own cup for drink
- Before commencing any activity, always provide the pupil with the time and opportunity to examine and explore the objects and materials that are going to be used

**Suggested resources**

- Developing Early Communication Skills curriculum
- Selection of objects that are relevant and meaningful to the pupil – some objects of reference will be personal to the individual pupil, but some objects (or sounds) for timetabled activities may be shared by a class or group of pupils. Any objects selected for reference purposes must be presented and used in a consistent way both in the classroom and in other environments. Language associated with the activity or event should also be carefully selected and used consistently with the individual pupil/s concerned.
- Object timetables
- Picture or symbol timetables

**Strategy Ref. RUP / OP (See also Early Communication Skills: OR / PVS)**

## **COG.19: To experience and develop awareness of object permanence**

### **Suggested activities/ strategies**

- Activities in the dark room to encourage pupil to track a moving light or a fluorescent object under UV light
- Watching a moving ball or toy – use balls with bells inside; shiny or fluorescent objects; toys with flashing lights
- Tracking a moving sound
- Tracking an adult playing a drum in a group situation
- Mirror games – looking at reflection in mirror, moving away, reappearing in mirror
- Hiding hands or feet under a cover; in sand; under bubbly water, etc.
- Hiding self behind or under a blanket or large piece of fabric
- Hiding a luminous object under a cover eg. a torch under thin fabric
- Hiding fluorescent objects under a chiffon scarf (under UV light)
- Hiding favourite objects under coloured cellophane paper
- Hiding objects under the water (can be coloured with food colouring)
- Hiding objects in a tray of sand, soap flake mix or bubbles
- Hiding liked objects (toy, biscuit, sweet, etc.) under a cover and finding them
- Hiding glove puppet behind back and making it reappear
- Hiding face behind scarf, mask or under tilted hat
- Hiding behind a large screen or under space blanket then reappearing
- Hiding character props in familiar stories / songs
- Use of pop up books / puppets / toys in stories and rhymes – watch them appear, disappear and reappear
- Use of computer programs which involve tracking an image across the screen or watching for an image to appear / reappear

### **Suggested resources**

- Dark room / multi-sensory room
- Pupil's favourite toys or objects
- Torch
- Glitter sticks
- Fluorescent objects
- Assorted balls including fluorescent, bell balls, wiggly giggly ball, etc.
- Hats with big brims; tinsel wigs; masks; scarves
- Glove and pop up puppets
- Pop up books
- Space blanket, large blankets / pieces of fabric
- Fabric for hiding objects under eg. fluorescent net or chiffon fabric that can be seen through to a certain extent; thicker fabrics eg. satin, nylon, fur fabrics
- Containers for hiding objects in
- Battery operated toys with light and sound elements
- Touch screen and switch programs for tracking, etc.

### **Strategy Ref. FM / OP / PS**