

STLS SENSORY SERVICE

VISUAL PERCEPTION

ACTIVITIES AND STRATEGIES

VISUAL PERCEPTION

Visual perception is defined as the ability to make sense of information taken in through the eyes.

It is the ability to recognise, remember, recall, discriminate, and make meaning of what we see. Visual perception difficulties affect how visual information is interpreted or processed by the brain.

Visual perception difficulties may affect a child's ability to succeed and progress at school, and be competent in some or all areas of the school curriculum.

General signs to recognise difficulties:

- Confusion in following instructions and directions - geography; maths; PE
- Poor organisational skills of self; belongings; equipment
- Delays in development of classroom activities, reading; writing; drawing; cutting out
- Difficulties with life skills, dressing; sequencing activities; tying shoelaces
- Difficulties with remembering and recalling recently given information
- Good articulation but poor fine motor control

Visual perception has seven major areas:

Visual Discrimination:

The ability to recognise differences and similarities in shape, form, colour, pattern, size, order and position. E.g. find the 'odd-one-out'

Visual Memory:

The ability to recall all of the characteristics of an image well enough to find that image from amongst a group of similar forms. E.g. Matching games - Snap; Pairs

Visual Sequential Memory:

The ability to recall a series or sequence of forms from amongst a group of similar series. E.g. Spelling exercises; telephone numbers;

Visual Spatial Relationships:

The ability to determine which object or symbol within a group of similar symbols is going in a different direction from the others. E.g. concepts:- in/out; over/under; left/right; near/far.

Visual Form Constancy:

The ability to recognise a form, despite changes in its presentation, from amongst other forms. E.g. upside down; larger; smaller; rotated; reversed; hidden

Visual Figure Ground:

The ability to visually focus on a specific form or object and to find this from within a picture with complicated or detailed background. E.g. Find the square button in a box of round ones. Finding a fork from amongst other cutlery.

Visual Closure: The ability to identify or recognise the whole object or form from an incomplete form or picture. E.g. Complete an incomplete picture; Fill missing letters in an incomplete word.

VISUAL PERCEPTION

VISUAL DISCRIMINATION

The ability to recognise differences and similarities in shape, form, colour, pattern, size, order and position.

Activities to improve Visual Discrimination:

- Spot the difference puzzles.
- Find the odd one out.
- Matching and sorting games.
- Making shapes with sticks, straws and rods.
- Recognising toys, objects and shapes by touch alone - and asking the pupil to describe the characteristics in detail - soft/hard; long/short; rough/smooth.
- Playing picture and shape dominoes.
- Word and letter hunt - pupil to circle designated letters, vowels or words in a paragraph.
- Moving in or out of large shapes drawn on the floor.
- Dot to dots.
- Completing jigsaw puzzles.

Strategies:

- Clear writing area of unnecessary and distracting stimuli.
- Worksheets should be clear and uncluttered.
- Use wide spaces between words to be copied
- Encourage the use of language in naming and sorting shapes, objects and toys.
- Provide a card or ruler to move down the page as an aid to copying.
- Always explain the errors made by the pupil.
- Always give as much praise as possible.

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VISUAL MEMORY

The ability to recall all of the characteristics of an image well enough to find that image from amongst a group of similar forms.

Activities to improve Visual Memory:

- Memory game - select only a few pairs of cards.
- Happy Families game
- Kim's game - begin with 3 objects then go on to 6 or 8.
- Show 2 or 3 objects for a few seconds. Cover and ask pupil to name them. Increase number.
- Show 5 objects for 5 seconds. Cover and remove one. Ask pupil to identify missing object.
- Show a picture, remove it and ask pupil to remember as many items in the picture as possible.
- Change the above game to include words, sentences and numbers.
- Pupil to trace around shapes with their finger, then draw shape on paper.
- Show a simple story in pictures then ask pupil to retell the story.
- Show a 3-shape pattern for 5 seconds, then ask pupil to reproduce with own shapes. Progress to 4 and 5-shape patterns.

Strategies:

- The pupil must be encouraged to carry the image of a shape or object in the head without reference to it.
- Work on the immediate recall of displayed material and in the delayed recall of shapes, forms, letters, words and sentences.
- Encourage the pupil to devise strategies and techniques for himself to aid recall.
- Ask the pupil to look more than once at what he being asked to recall.
- The pupil needs to be encouraged to rehearse what has been seen in order to remember it.
- Any techniques used in study-skills would be helpful. E.g. Look-cover-recall in reading.

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VISUAL SEQUENTIAL MEMORY

The ability to recall a series or sequence of images, objects, forms, symbols or movements. It is an integral part of decoding in reading and encoding in spelling.

Activities to improve Visual Sequential Memory:

- Use a story strip with 4 pictures. Cut up the strip and ask pupil to reconstruct story. Gradually increase number of pictures.
- Use familiar sequenced picture puzzles. E.g. getting dressed; events of the day; baking a cake.
- Make up cards with sequences of numbers, letters, words or shapes in a row. Ask pupil to verbalise each and point to each to reinforce in the memory. Then ask pupil to recall sequence.
- Arrange a sequence of objects, e.g. fork, knife, spoon or coins in order of size, then mix the sequence and ask pupil to arrange.
- Play Hangman or Junior Scrabble.
- Make patterns with beads, coloured blocks or macaroni. Ask pupil to copy the sequence.
- Show pupil a section of a video for 5-10 seconds. Ask pupil to describe events in sequence.
- On overhead projector build up a pattern and ask pupil to complete it.
- Draw clock faces on cards designating different times of the day. Arrange in order of a.m. to p.m.
- Act out a sequence of waking, dressing, breakfast, going to school etc.

Strategies:

- Ask pupil to look for distinguishing features in a sequence.
- Work on immediate recall of sequences first verbally and then written. E.g. Numbers, shapes, colours. Begin with 2 items in sequence, gradually increase number of items.
- Allow practice in verbalising sequences to other people. E.g. A string of instructions for class to follow. Memorise a message to office staff.
- Use music for recalling sequencing: E.g. clapping rhythms to copy; singing spellings helps some to remember. Sequence songs. E.g. "10 in a bed"; "If you're happy"; etc.
- Discuss any sequence activities - growth of a plant; assembling of car; sun rise to sun set.

VISUAL PERCEPTION

VISUAL SPATIAL RELATIONSHIPS

The ability to determine from amongst five forms of identical nature, the one form or part of a form that is going in a different direction.

Activities to improve Visual Spatial Relationships:

- Jigsaws, especially those with people in them. Use body puzzles.
- Picture assembly, cut up familiar pictures and ask pupil to put them back together.
- Mazes or maps, following maze in a sand tray or floor map, then 2D pencil mazes.
- Playing left/right and “Simon says” games including copying body games.
- Recalling/identifying location of objects in a room e.g. I Spy
- Playing preposition games e.g. Go under, over, next to etc.
- Practise use of maps, mazes i.e. simple orienteering
- Gross motor games, PE activities e.g. rounder’s, square dancing, obstacle courses, Twister.
- Introduce concepts of distance and measurement in everyday situations. E.g. Which is longer/shorter/further/smaller/larger?
- Use several identical objects. Place one at a different angle. Ask pupil to identify. Move to paper and pencil activities.

Strategies:

- Use verbal descriptions as much as possible to reinforce spatial concepts; above, below, right.
- Always talk pupil through a difficult visual task - this will help internalise verbal structuring.
- Be aware that some maths exercises may prove difficult -plotting and locating on a graph, sums involving horizontal and vertical operations.
- Play lots of ‘odd-one-out’ games with directional clues, a line of chairs /children/pencils with one facing the wrong way.
- Include lego, airfix and other constructional activities.

VISUAL PERCEPTION

VISUAL FORM CONSTANCY

The ability to see a form, and be able to see that same form even though the form may be a different size, rotated, reversed, or hidden amongst other forms.

Activities to improve Visual Form Constancy:

- Sorting games. Sort objects according to size or shape.
- Geometric shapes. Show a geometric shape and ask pupil to identify similar shapes in the room.
- Ask pupil to match 2D shapes on a card to 3D objects from a sorting box.
- Circle all of one letter in a line of different letters e.g. 'b' from b h g n b a g b w s t j b x
- Write the same letter/word in different way - style, colour, print, case together with other letters/words. Ask pupil to underline the one letter/word in its different presentation.
- Gather together several shapes - all the same but different sizes. E.g. balls or boxes. Give pupil one shape. Ask pupil to identify same shapes as the one being held.
- Circle different letters e.g. all the A's or all words ending in 'd' in a newspaper or magazine.
- I Spy games. Look for different objects in the playground or out on trips e.g. all red cars.
- Feely bag of objects. Ask pupil to select by touch object from bag same as one on desk.
- Use a paragraph with all lower case letters. Ask pupil to insert capitals.

Strategies:

- Reinforce constancy, e.g. balls are round, desks are square, doors are rectangular, bowl are round.
- Make use of changes in daily activities, different size books, length of pencils, shape of fruit etc.
- Make use of overhead projectors to rotate patterns, shapes, words.
- Take nature walks and discover shapes of natural objects, fir cones, leaves shells, conkers
- Sorting games - sort into groups first (animals) then within groups (pigs)
- Sort by Shape: bricks, buttons, letters. Colour: pieces of material, sticky shapes.
Size: bricks, marbles, stones, shells. Texture: cotton, wool, silk.

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VISUAL FIGURE GROUND

The ability to visually focus on a specific form or object and to find this within a picture with complicated or detailed background.

Activities to improve Visual Figure Ground:

- Ask pupil to pick out a particular coloured crayon from a box.
- Ask pupil to pick out various categories of items, round objects, red objects, wooden objects.
- Find a square button in a box of round ones.
- Word searches.
- Worksheets of overlapping pictures - ask pupil to outline a specified object.
- Spot hidden objects in a picture, Search for sausages, Find the fingers.
- Outside - find the daisy hiding in the grass, look for the white house amongst the red houses.
- Games - pick-up-sticks; mosaics; painting by numbers; computer games;
- Ask pupil to cross out first and last word in a paragraph.
- Sort knives, forks, spoons into respective groups, pick out particular tins in supermarket.

Strategies:

- Encourage the pupil to have a clear desktop.
- Prepare worksheets that are free from clutter.
- Consider the position of pupil's desk in the classroom
- Organise materials systematically.
- Use colour coding for books and timetable to help find correct book for each lesson.
- Use a reading marker - a ruler or a frame.
- Use windows or blocks to isolate units of work.

VISUAL PERCEPTION

VISUAL CLOSURE

The ability to recognise or identify the whole object or form from an incomplete form or picture.

Activities to improve Visual Closure:

- Games, Hangman; Battleships; Noughts and Crosses; Connect 4;
- Jigsaw puzzles - beginning with simple patterns, people, and then pictures.
- Finishing incomplete pictures. Spot the differences. What's missing games.
- Dot-to-dot pictures. Begin with only a few numbers and slowly increase.
- Scrabble and other word games.
- Choose a long word and see how many other words can be made from this.
- Draw a picture of a figure missing some parts, ask pupil to fill in the gaps.
- Write a sentence missing out a word. Pupil to fill in missing word.
- Draw half a shape/letter/number. Ask pupil to complete.
- Use rows of words with one letter missing with rows of completed words. Pupil to match. Gradually progress to sentences and then geometrical forms.

Strategies:

- Always encourage pupil to verbalise the form before completing it.
- Ask pupil to trace over an incomplete form with finger.
- Always wait for pupil to identify that (a) a part or piece is missing, (b) what the part or piece might be.
- Prepare lots of patterns, reversals,
- Support will be needed in completing/compiling words from letters; predicting whole pictures/forms from parts; identifying and naming missing items from a picture.
- Building 3 dimensional designs from cubes - from a worksheet example.

VISUAL PERCEPTION ACTIVITY SHEETS

NAME: _____

WORKING ON:

- DISCRIMINATION MEMORY SEQ. MEMORY
SPATIAL REL. FORM CONSTANCY FIGURE GROUND
CLOSURE

ACTIVITY	WK/BEG	WK/BEG	WK/BEG	WK/BEG
REMEDIAL SHEETS				
OTHER				