

Schools Therapy Resource Pack

Section 4B – Fine motor skill development

Contents

- Correct sitting posture
- Possible causes of difficulties identified in Preliminary Checklist
- General activities to improve hand function/ hand-eye coordination
- Fine Motor Skills Programme for reception pupils
- Clever Hands Programme

FINE MOTOR SKILLS

Introduction

Fine motor skills include movements made by all the smaller muscles of the body. They include:-

- eye fixation and tracking
- chewing and speaking
- hand / finger strength and coordination

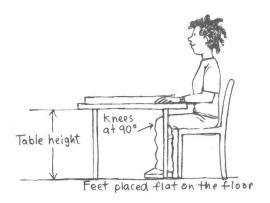
Hand Function

Hand function is particularly relevant for classroom learning. Once gross motor core stability is established, small movements become more precise: children are able to coordinate both hands, using one to lead and the other to support in two-handed activities (although complete dominance may not develop for some time). They also develop the ability to hold objects steady while adjusting fine movements for tasks such as cutting out and handwriting. Most hand activities also require hand / eye coordination.

The possible causes of difficulties highlighted by the Preliminary Checklist are tabled overleaf.

The development of these skills can be helped by the **Reception Fine Motor Programme** and the **Clever Hands** programme. These activities are also suitable for giving to parents.

Check correct sitting posture



Possible causes of difficulties identified in Preliminary Checklist

Difficulty	Possible Causes
Unable to pick up objects using a pincer	Poor hand-eye coordination
grasp	Poor hand strength
	Poor tactile awareness
Difficulty using blocks, beads, puzzle	Poor hand-eye coordination
pieces to complete an activity	Poor manipulation skills
	 Difficulty using both hands together
Unable to turn pages of a book singly	Poor tactile awareness
	Poor manipulation skills
Difficulty handing out sheets from a stack	Poor tactile awareness
of paper	Poor manipulation skills
	Difficulty using both hands
	together (undecided preferred hand)
Difficulty using tools (scissors, pencils	Poor tactile awareness
etc)	Poor manipulation skills
	 Limited hand strength
	Difficulty using both hands
	together (undecided preferred hand)
Unable to cut, draw, trace with precision	Difficulty using both hands
and accuracy	together (undecided preferred hand)
	Poor hand-eye coordination
Difficulty with buttons and zips	Difficulty using both hands
	together (undecided preferred hand)
	Poor tactile awareness

NB Many of these difficulties may also be associated with visual perception difficulties.

General activities to improve hand function and hand/eye coordination

Typical problems	Activities
Poor hand strength, weak grasp	Activities which require squeezing, pulling, pushing. Construction toys, crumpling paper, wringing out cloths, clothes pegs. For more ideas see activities in 'Clever Hands'
Poor dexterity and manipulation skills	Gather a strip of material into the palm of the hand using fingers. Using one hand collect counters or marbles one at a time into the palm of the hand and then using thumb bring them out to post into container one at a time. For more ideas see activities in 'Clever Hands'
Poor hand-eye coordination	Grade the difficulty of tasks presented e.g. use large pegs and board before moving on to small ones: start with activities where one part of the activity is stable e.g. placing stickers onto circles on paper masking taped to table. Move on to activities where both parts are moving e.g. threading beads, hitting a moving ball with racquet. For more ideas see activities in 'Clever Hands'
Difficulty coordinating use of both hands together (bilateral coordination)	Always encourage the child to use non-dominant hand to support paper, puzzle board etc. Practise threading beads, using large beads and firm lace, gradually working towards small beads and thin lace; wind wool onto cards; tear paper. For more ideas see activities in 'Clever Hands'
Hand preference not decided	Lots of practice at two-handed activities as above. Encourage crossing mid-line of body when painting on easel, using white board, playing trains or drawing on large paper on the floor etc

Fine Motor Programme for Reception Pupils.

Many children entering school will not yet have fully developed their fine motor skills.

We recommend that all Year R children complete Fine Motor Skills Programme (FMS) in addition to the Achieving Body Control (ABC) Programme. This will develop the postural control and then develop fine motor control needed for school activities. The programme can be readily incorporated into lessons (over an approximate six week period).

Children with identified difficulties should also be given opportunities to practice the activities individually or in a small group.

Implementing the FMS

Training which supports implementing the FMS in school can be requested from the Children's Therapy Service (see Training Section)

Equipment

Weeks 1/2 - Chalk board or large pieces of paper on the wall

Chalk, markers

Weeks 3/4 - Play-dough, newspaper, card, pegs, tweezers,

cottonwool,

Weeks 5/6 - Play-dough, beads, paper clips, rubberbands

Review

Children's responses are monitored through observation and the FMS Individual Progress Sheets can be completed after each Block

NOTE: children with identified physical / learning difficulties who are know to children's therapists should not be included prior to consultation with relevant therapist.





FINE MOTOR SKILLS worksheets

These activities concentrate on shoulder stability and bilateral integration.

Shoulder stability

Strengthening the muscles around the shoulders is essential for developing controlled arm and hand movements. This is necessary for all fine motor skills and handwriting.

Bilateral Integration

Bilateral integration is an important function for the development of coordination between the right and left sides of the body, mature hand dominance and effective two-handed coordination. It also contributes to the communication between the right and left sides of the brain for the development of specialisation of perceptual and cognitive functions for learning.

Activities need to be carried out at least 3 times a week in order to be effective.

Produced by Children's Occupational Therapy Service, Child Development Centre, Tel 023 9289 4410

week ONE

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FINE MOTOR SKILLS worksheets

Animal walks

Monkey bent knees and long arms or can bend arms to 'scratch' sides

of body.

Bear walking with both hands on the floor, knees straight.
Bunny bend knees with arms outstretched and hands flat on

bend knees with arms outstretched and hands flat on floor. Push off at feet to bring feet up to hands and then move

hands forward to repeat action.

Encourage each child to go down the length of the room completing two repetitions of each walk.

Peril

Marching

Hand touches knee on same side. If the child is able to manage this easily, progress to marching, touching opposite hand to knee.

Drawing circles in the air

Move both arms together in the same direction going to the right for 5 repetitions and then to the left for 5. Make sure that the children keep their bodies still whilst moving their arms.







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week THREE

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FINE MOTOR SKILLS worksheets

Incorporate all 3 activities into each session

Activity 1 - Play-Doh

- > Squeezing in each hand/transferring between hands.
- > Roll out Play-Doh using both hands to make a long sausage.
- > Using both hands together, pinch along length of 'sausage' using thumb and index fingers only. Turn 'sausage' onto its side and repeat two more times.

Activity 2 - Sitting on floor

- > Tearing A4 paper into multiple strips, scrunch each strip individually with one hand and then lying on stomach, prop up on forearms and flick paper across the room using each finger in turn against the thumb.
- > Encourage children to crawl around classroom collecting paper.

Activity 3 - Sitting at a table or on the floor

- > Using only skill fingers (thumb, index and middle), using pegs, place cards with numbers or letters written on them onto a piece of suspended string or cord. If the child struggles to isolate the skill fingers, encourage him/her to hold something, i.e. link brick, large marble, in the palm using ring and little finger.
- > Pick up cotton wool with pegs or tweezers, using skill fingers only and release them into a container. You can use this game as a race or timed activity if appropriate.



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FINE MOTOR SKILLS worksheets

These activities concentrate on hand strengthening and finger isolation.

Hand strength

Strengthening the hand muscles is essential for the child to develop the skills necessary for fine motor activities including self care e.g. buttons, zips; and the manipulation of tools e.g. scissors, pencil.

Finger isolation

This relates to the ability to move fingers independently, which is necessary for the development of refined dexterity and in-hand manipulation.

Table top activities require the child to be seated at a table with back and thighs supported, feet firmly on the floor or block and desk at elbow height.



week THREE



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- > Roll out Play-Doh using both hands to make a long sausage.
- > Using both hands together, pinch along length of 'sausage' using thumb and index fingers initially then turn 'sausage' onto its side and repeat using the thumb against the middle, ring and little fingers in turn.

Activity 2 - Sitting on floor

- > Tearing A4 paper into multiple strips, scrunch each strip individually and then lying on stomach, prop up on forearms and flick paper across the room using each finger in turn against the thumb.
- > Encourage children to crawl around classroom collecting paper.

Activity 3 - Standing

- > Using only skill fingers (thumb, index and middle), using pegs, place cards with numbers or letters written on them onto a piece of suspended string or cord. If the child struggles to isolate the skill fingers, encourage him/her to hold something, i.e. link brick, large marble, in the palm using ring and little finger.
- > Pick up cotton wool with pegs or tweezers, using skill fingers only and release them into a container. You can use this game as a race or timed activity if appropriate.

week FOUR





FINE MOTOR SKILLS worksheets

These activities concentrate on in-hand manipulation and dexterity, whilst building on stability and hand strength.

> In-hand manipulation and dexterity encourages the use of the small muscles within the hands to develop advanced fine motor coordination. This skill is essential for refining pencil control and other fine motor activities.

Incorporate activities 1, 2, & 3 in Week 5

These activities will need to be closely monitored and specific demonstration is needed to ensure that the children are performing the tasks accurately. Where the activities refer to skill fingers this means the use of the thumb, index and middle fingers only.

Table top activities require the child to be seated at a table with back and thighs supported, feet firmly on the floor or a block and table at elbow height.



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week FIVE

FINE MOTOR SKILLS worksheets

Activity 1 - Play-Doh

- > Hold ball of Play-Doh in one hand, pinch off small pieces and roll into pea sized balls using skill fingers only. Make 10 balls with each hand.
- > Pinch off small pieces and roll into small sausage shapes using skill fingers only. Make 10 sausages with each hand.
- > Using one hand only, see how many of the balls and sausages the child can pick up, one at a time, whilst retaining them within the hand. Repeat with the other hand.

Activity 2 - Large beads

- > Pick up 2 large beads, using dominant hand, one at a time and hold them within the hand. Encourage the child to move one of the beads to their skill fingers and then thread this onto stiffened lace/pipe cleaners. Repeat with the second bead. (Child may need some physical support to ensure that they are only using one hand to hold the beads).
- > This can be upgraded by increasing the numbers of beads to a maximum of 4.

Activity 3 - Paper clips/cards

- > Paper clips pick up and rotate into position using one hand only and fasten 2 pieces of paper together. Repeat 10 times.
- > Cards deal out cards, holding pack in one hand while dealing with the other. Can play simple games such as snap, happy families, etc.

week FIVE

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- > Hold ball of Play-Doh in one hand, pinch off small pieces and roll into pea sized balls using skill fingers only. Make 10 balls with each hand.
- > Pinch off small pieces and roll into small sausage shapes using skill fingers only. Make 10 sausages with each hand.
- > Using one hand only, see how many of the balls and sausages the child can pick up, one at a time, whilst retaining them within the hand. Repeat with the other hand.

Activity 2 - Small beads

- > Pick up 2 small beads, using dominant hand, one at a time and hold them within the hand. Encourage the child to move one of the beads to their skill fingers and then thread this onto a shoe lace. Repeat with the second bead. (Child may need some physical support to ensure that they are only using one hand to hold beads).
- > This can be upgraded by increasing the numbers of beads to a maximum of 4.

Activity 3 - Rubber bands/cards

- > Rubber band escape place rubber band over skill fingers just below the knuckles; child moves fingers in order to 'escape' from the band. Ensure other hand is not used and that child works their fingers away from the body, table, etc. Repeat 5 times with each hand.
- > Cards deal out cards, holding pack in one hand while dealing with the other. Can play simple games such as snap, happy families, etc.

week SIX

Clever Hands Programme

Clever Hands Level 1 (page 1)





PLAYDOUGH

Skill: hand strength, use of two hands together, applying appropriate pressure

Can you roll out a sausage?

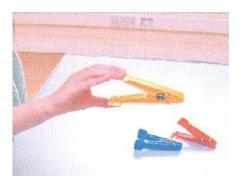
Make sure you use two hands.

Now can you turn your sausage into a dinosaur by using your thumb and first finger to pinch along the top to make spines?

- Roll it flat and make shapes using cutters.
- Roll a sausage again, can you cut it into pieces with a play knife?

Try to keep your first finger on the top of the knife and your thumb and the other fingers either side. Hold your playdough still with your other hand.

 Can you roll it flat again and make a face out of the playdough?



PEGS

Skill: hand strength

(For "graded" pegs see Resource List)

Look at the picture, hold the peg this way.

- Peg pegs onto the edge of a box
- Peg pegs onto a rag doll / teddy
- Peg pegs onto a T-shirt on a teddy

Clever Hands Level 1 (page 2)



TONGS

Skill: hand strength, applying appropriate pressure

Use one hand on the tongs. You need to hold the tongs with your thumb on one side and your fingers on the other.

- Snap the tongs like a crocodile
- Can your crocodile bite the paper?
- Tear and scrunch up paper and pick it up with your tongs
- Pick up cotton wool balls
- Now try little bricks



POSTING

Skill: manipulation, hand-eye coordination, use of two hands together, hand dominance

 Pick up and post coins into a money box



 Post dried peas / pasta / sugar decorations into a bottle and screw up the lid.

NOTE

If you are working with a child who still puts objects into his / her mouth use edible items, e.g. raisins, dried banana chips, 'holey' cereals etc.

PASTRY MAKING

Skill: hand strength, applying appropriate pressure

 Roll the pastry into a ball. Flatten it with your hands. Cut it into shapes using pastry cutters and shape cutters

DUPLO

Skill: hand strength, applying appropriate pressure, using both hands together, developing preferred hand

What can you make?

Clever Hands Level 1 (page 3)



HAMMERING

Skill: hand-eye coordination, hand dominance, dissociate hand from forearm movement, applying appropriate pressure

Find toys with which you can use a hammer



THREADING

Skill: hand-eye coordination using two hands together, fine manipulation

Thread large beads onto dowels / sticks

HAND AND FINGER RHYMES AND GAMES

e.g.

- Two Little Dicky Birds
- Twinkle, Twinkle Little Star
- Tommy Thumb
- Play games with finger puppets

FEELY GAMES - Skill: tactile awareness

 Hide everyday objects in a box of sand / rice / pasta / flour etc e.g. teaspoon, cotton wool balls, large beads, little bricks, toothbrush etc.

What can you find? Try this game again placing objects into a bag.



FEELY PICTURES

Skill: fine manipulation

- Tear up tissue paper.
- Scrunch up the paper using your fingers (as in the picture) and glue onto the paper.

You can also use cotton wool, glitter, string, sand and oddments of different textures.
What else can you use for your

picture?

Clever Hands

Level 1 (page 4): more ideas to practise:-

SLIME (see page 10 for recipe)

Skill: tactile awareness, grasp and release

Play and enjoy! It is messy! Keep clothes covered!

INSET PUZZLES

Skill: hand dominance, manipulation
Try large and easy to manipulate inset puzzles

PUZZLES

Skill: pincer grasp, use of two hands together, hand dominance

- Wooden inset puzzles with chunky hand grips.
- Wooden inset puzzles with small hand grips.
- 2 4 piece puzzle within a framed border. Large chunky 2 piece interlocking puzzles.

MUSICAL INSTRUMENTS

- Castanets / maracas
- Toy trumpets / saxophone
- Keyboards

FINGER CYMBALS

- Place a cymbal on each index finger and clap together
- Now place a cymbal on your thumb and index finger of one hand.

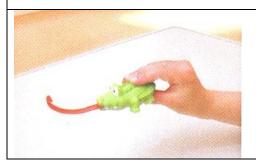
Play and enjoy!

MORE IDEAS

Patting and tapping a balloon into the air

You may need to use both hands:-

- Squeeze a plastic bottle or bath toy in water to make bubbles
- Blowing bubbles. Can you pop them with one finger?
- Squeeze squeaky toys see pictures below





SLIME

1 cup Cornflour

Add enough water to make a firm, yet pliable, slightly runny consistency

Use food colouring or paint to add colour

Shape into a ball then watch as the slime 'melts' and runs through your fingers!

Clever Hands Level 2 (page 1)

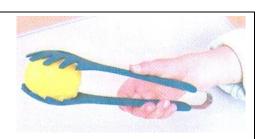


Use one hand on the tongs. Hold them with your thumb on one side and your fingers on the other like

the picture.

Clever Hands Level 2 (page 2)

- Snap the tongs like a crocodile.
- How many items can your crocodile collect?
- Now pretend the tongs are a crane.
- What can you pick up? e.g. polystyrene balls, little bricks, little cars

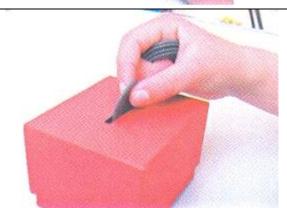




POSTING

Skill: manipulation, hand-eye coordination, use of two hands together, hand dominance

Pick up 2 large coins, one at a time and keep them in the palm of your hand.



Now try posting one while the other one remains in your hand. Now post the other one.

Can you use your other hand? Now try with smaller coins.

PASTRY MAKING / SALTDOUGH

Skill:– hand strength, applying appropriate pressure

- Roll the pastry / dough into a ball.
- Flatten it with your hands.
- Cut it into shapes using pastry cutters and shape cutters.

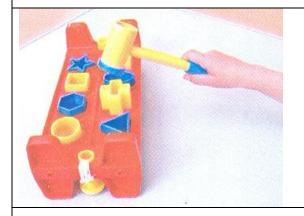
STICKLE BRICKS

What can you make?

Clever Hands Level 2 (page 3)

HAMMERING

Can you find games with which you can use a hammer.





THREADING

- Thread 'holey' cereal / sweets onto pipe cleaners / straws.
- Thread medium beads / pasta pieces onto a sturdy tipped lace.
- Try lacing cards / boards

HAND AND FINGER RHYMES

e.g. 'Here's the church; here's the steeple'.

Can you think of any more?

FINGER CYMBALS

Place a cymbal on your thumb and index finger

- Change the fingers they are used on.
- Try using your other hand.

FEELY GAMES

Skill: tactile awareness

 Hide medium items in a box of sand / rice / pasta / flour etc e.g. 10p, 50p, 2p, 20p coins, medium sized bricks / beads / toys / cars / dolls furniture etc. Have a duplicate set ready on a tray.

Now close your eyes. What can you find? Describe them. NO PEEPING!

Now can you point to the same object on the tray?

Try this game again, placing objects into a bag instead.

Clever Hands Level 2 (page 4)



FEELY PICTURES

Skill: fine manipulation

 Make a picture sticking pasta, lentils, sand, tissue paper.

How tightly can you scrunch the paper?

Make sure you use your fingertips as in the picture.

SLIME (see page 10 for recipe)

Play and enjoy! It is messy! Keep clothes covered!

PUZZLES

- 4 8 piece puzzle within a framed border.
- Large chunky 2 6 piece interlocking puzzle.

What other puzzles can you do?

MUSICAL INSTRUMENTS

- Toy trumpets / saxophone / flute
- Keyboards / toy piano
- Drums. Try with and without sticks.
- Xylophone.
 Castanets / maracas (one in each hand).

Play and enjoy!

MORE IDEAS

- Squeeze a plastic bottle with one hand only to make bubbles in water.
- Using a spray bottle to spray water onto plants; or try to hit a target.
- Squeeze squeaky toys see pictures below.





Clever Hands Level 3 (page 1)

PLAYDOUGH

Skill: use of two hands together, hand strength, applying appropriate pressure

- Make a nest and some little eggs to go in it.
- Roll out the playdough into a long sausage shape and then coil it round to make a nest. Pinch off some more playdough and roll it between your fingers to make the eggs.

Here's how to make it.





How many eggs can you make?

Now try an Easter basket!

I'm hungry, can you make me a pizza?

• Think of all the things you have done. Can you make a pot?



PEGS

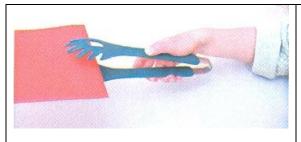
Skill: hand strength (For 'graded' pegs see Resource List).

Look at the picture. Hold the peg this way.

- Start with the easier pegs. See how fast you can peg 10 pegs onto a box.
- Can you beat your own time?
- Now try this again using your other hand.
- Try one peg in each hand and alternate.

Ready for a challenge? What can you find to pick up using the peg.

Clever Hands Level 3 (page 2)



TONGS

Skill: hand strength, applying appropriate pressure

Use one hand on the tongs. Hold them with your thumb on one side and your fingers on the other like the picture.

How many things can you find to pick up with tongs?

Did you find anything difficult? Why do you think that was?

• Try different tongs. Which tongs were the most difficult to use? Why?



- Can you try picking up raisons / plastic buttons with tweezers?
- Try this again now putting them into a bottle.



POSTING

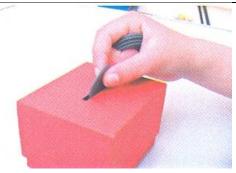
Skill: manipulation, hand-eye coordination, use of two hands together, hand dominance

 Pick up 5 large coins one at a time; keep them in your palm.
 Post them one at a time.

- Can you use your other hand?
- Now try using smaller coins.

Now post the coins with your right hand, then your left hand alternately.

How easy is this game when using 2 boxes?



Can you pick up a coin in each hand and post them into each box at the same time?

Clever Hands Level 3 (page 3)

PASTRY MAKING / SALTDOUGH Skill: hand strength, applying appropriate pressure

 Roll the pastry using a rolling pin and cut it out using pastry cutters or shape cutters or with a play knife.

What else can you make?

LEGO

• Can you build a tower of 10 Lego bricks one brick at a time? How fast can you do this? Can you pull them apart one at a time?

What can you make?



HAMMERING

Which toys can you use a hammer with?

THREADING

- Thread small beads and / or small pasta pieces onto a lace.
- Try lacing cards / boards.
- Cut up straws and thread these onto a lace.

HAND AND FINGER RHYMES

e.g. 'Here's the church; here's the steeple. 'Incy Wincy Spider'.

Can you think of any more?

FINGER CYMBALS

Place a cymbal on your thumb and index finger.

- Change the fingers they are used on.
- Try using your other hand.
- Now put a set on each hand.

What rhythms can you make?

Clever Hands Level 3 (page 4)

FEELY GAMES Skill: tactile awareness

Hide small items in a box of sand / rice / pasta / flour etc e.g. 1p and 5p coins, paper clips, small beads / marbles / cubes, miniature cars / toys / dolls furniture etc.

Have a duplicate set ready.

Now close your eyes. What can you find? Describe the items. NO PEEPING!

Now can you point to the same item on the tray?

Try this game again placing the items in a bag instead.



FEELY PICTURES

Skill: fine manipulation

 Make a picture sticking pasta, lentils, sand, tissue paper.

How tightly can you scrunch the paper? Make sure you use your fingertips as in the picture.

SLIME (see page 10 for recipe)

Play and enjoy!

Warning: It is messy! Keep clothes covered!

PUZZLES

- 2 6 medium piece puzzles.
- 6 12 medium piece puzzles.
- 4 12 smaller piece puzzles.

What other puzzles can you do?

MUSICAL INSTRUMENTS

- Toy trumpets / saxophone / flute.
- Keyboards / toy piano.
- Drums. Use two sticks and alternate left and right tapping.
- Castanets. Use in both hands, alternate left and right clicks.
- Recorder. How many different notes can you play?