

# Motor Skills Advice for Secondary Schools

Solihull Specialist Inclusion Support Service  
Sensory and Physical Impairment Team



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# Getting Seating Right!

Good seating and positioning is essential to prevent back strain and poor posture. It is also important for good use of the hands, especially for tasks that require a high level of dexterity and concentration such as writing and cutting activities. A child who has poor sitting posture will use more effort to carry out these type of activities. If they have to concentrate on keeping a stable or comfortable sitting position they will be less able to concentrate on the task that has been set. They can also appear fidgety and distractible. Improving a child's sitting posture can have a significant impact on their academic attainment and confidence in the classroom.

## A Rough Guide

Tables should be half the pupil height.  
Chairs should be a third of the pupil height.

## What does a good posture look like?

Hips, knees and ankles are at 90 degrees (hips can be a little higher than the knees if this is more comfortable and the feet are supported)

Appropriate seat depth so that the bottom is at the back of the chair and the thighs are fully supported. Make sure that the front of the seat is not digging into the back of the knees

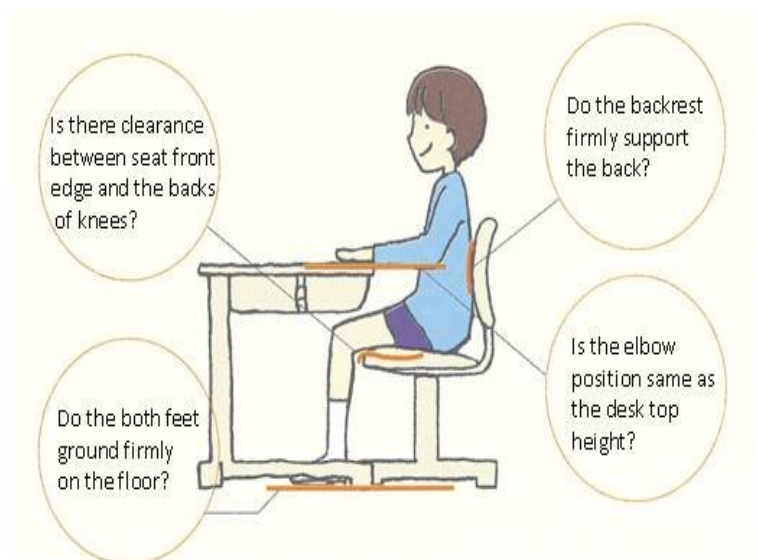
Appropriate seat height so that the feet are flat on the floor or are supported in some other way

Forearms rest comfortably on the table, without shoulders being "hunched"

Chair can be pulled fully under the desk

Head should be up and in midline.

Sitting in this way means that hands can be used to the best effect.



## **Watch out for:**

Children who sit awkwardly on their chair because it isn't the correct height. You might see them-

Sitting on the front edge of the seat

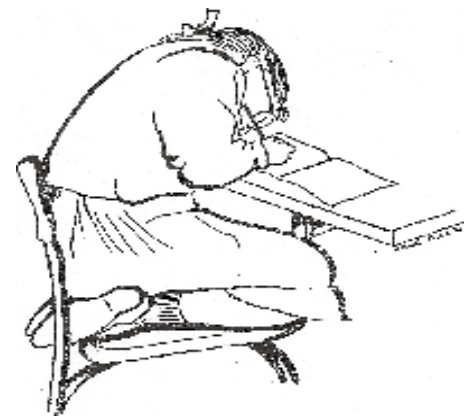
Kneeling on the chair

Wrapping their legs around the chair legs

Tipping the chair forward onto the front 2 feet

Hunched over the desk with their head too close to their work because the table is too low

Working with their elbows and shoulders raised because the table is too high



## Seating for children with mild motor difficulties

The principles of good seating and posture are especially important for children with mild motor difficulties including those with dyspraxia. In addition to the tips for good posture provided above it may also be beneficial to provide the following:

A chair with sides or arms to provide guidance re trunk position

A chair with a full back rest

A chair with a straight, rather than angled seat and back

A good, heavy footrest (bound catalogues can be used).

A chair that can easily be moved in and out of the table.

A sloped writing board (a lever arch file is a cheaper option).



A “Movin Sit” cushion

Sometimes a more suitable chair already exists somewhere in the school and should be used even if it doesn't match the other furniture in the classroom!

# Practical Ideas for the Secondary Curriculum

## Art

Adapt paint brushes by cutting them down to shorter length/ or adding pencil grip

Allow work on a larger scale

Give opportunity to rehearse techniques

Use appropriate software to produce work

If doing observational drawing ensure object is against contrasting background

Use fingers to paint on washable desktop and press paper on top to get record of work done

Consider texture of clay for those with reduced muscle strength

Provide modelling activities with play dough to rehearse

Provide a variety of mark making tools to encourage children to make decisions as to best tool for the job.

Choose curriculum projects that are not always dependent on fine detail

Use specialist scissors

Demonstrate use of new tools and allow time to refine use

Provide non-spill lids for water

Provide more accessible dry materials such as charcoal, pastels, and triangular crayons

Use Ergo crayons for children with limited hand strength

Consider transportation of resources-provide carrying box

Use good quality paper, particularly for wet activities

Encourage pupils to consider their capabilities at the design stage

Provide appropriate seating to promote fine motor skills

Consider the use of a rise and fall table

Have stool with a cross bar to rest feet

Work on angled writing slope

Reduce the need for pupil walking round to collect resources-have everything to hand

Reinforce safety rules, risk assess and provide support if necessary

Ensure only relevant equipment is out on the desk-de clutter work surface

Allow plenty of space for movements

Consider use of pipettes and roll on to release paint in a more controlled manner

Incorporate appropriate ICT into art work

Use multi sensory approach to develop language around art

Part prepare work if needed

## **Dance /Drama**

Use of puppets/ masks /costume can allow children to demonstrate unfound confidence.

Use video clip to demonstrate movement required

Provide a familiar scenario so child can best demonstrate movement

Praise process, effort, determination, individual progress rather than finished project

Use props to emphasise movement such as ribbons/scarves

Incorporate static dances where movement will be more controlled

Develop slow dances

Partner work, building on strengths

Shadow a partner

Select partner to ensure compatibility

Break down movement and teach to mastery before introducing any speed

Incorporate body awareness into lesson

Use music with obvious beat to enable pupil to move in time

Reduce the amount of times the sequences need to be repeated

Use the wall or a piece of apparatus to lean on or for support or use a chair

Work on a floor level rather than standing up

## Design Technology

Design of a product does not have to be a paper recording activity

Explore all ICT opportunities for recording take photos, audio and video.

Provide meaningful design issues-could be around issue of disability

Use dycem to stabilise equipment

Use clips to hold equipment

Stabilise small objects using blue tack or Velcro

Use a variety of construction kits to promote motor skills

To support skills in cooking practice grating, squeezing, mixing etc

Promote good seating

Ensure child has listened to and understood safety instructions

Provide more opportunity to finish tasks

Part prepare some elements of the task, negotiate this with student

Consider need for adult support at the direction of the student

Consider use of rise and fall table

Reduce the need for student to move around the classroom

Use adapted/lighter weight tools

Teach specific skills and break the task down-might need to be individually planned to meet a particular students needs.

Use adapted and specialised equipment to support motor skills

Consider measuring equipment –digital scale

## English

Provide templates /writing frames for recorded work to prompt appropriate layout

Keep copying and redrafting to a minimum

Provide specific, repeated, simplified instructions and clarify understanding using a buddy

Consider seating position within classroom and personal work space

Provide a visual cue for finished product (Keep a good copy of previous years work book).



Use a book mark in guided reading

Place the book vertically to read

Use visual prompts for organising work on a page

Promote retelling of the middle part as this is most difficult part to sequence and recall

Use whiteboard during introduction to session so child can record their ideas immediately

These can be photocopied and kept alongside written activity in case the written activity is not completed on time

Use sloped board or lever arch file

Use a variety of pens to promote writing needed for the task

Use ICT alternatives to record work-ditaphone, alternative software

## Geography

Consider mobility issues for field work

Take foldable chair for rest periods on field trip

Use Wikki Stix for outlines of maps to reinforce the shape

Provide white boards with grids for grid references

Use photos around school to plan and describe routes (start with the familiar)

Use rhymes to promote memory for direction EAST SOUTH WEST NORTH

Use a high contrast to reinforce country outlines- white on black

Use stencils/templates

Increase size of worksheet

Use part prepared / or ready prepared diagram ready for annotation

## History

Use visual timelines

Place concrete objects on a time line

Place pictures on a time line

Provide opportunity to develop personal history

Record work on Dictaphone

Give out notes to be highlighted

Use bullet points rather than full sentence construction

Develop prompts for remembering key information

Provide diagram to be annotated

Prioritise an understanding of time in pupils IEP

Consider History through drama/video/DVD

Start with the present and move back in time to aid perspective

## ICT

Consider mobility around the room and seating

Alter settings such as larger cursor

Alternative keyboards/mouse

Use paper holders to type up work

Try hand aerobics before \ICT

Use appropriate software for recording tasks

Use of digital cameras, video and Dictaphones

## Maths

Use adapted ruler

Appropriate paper for recording –consider size of squares

Highlight one question at a time on enlarged worksheets encourage highlighting the question the pupil is working on

Ensure all prepositions are understood before they have to be applied and provide visual prompt as reminders

Children with motor difficulties find it difficult to draw diagonal lines so are likely to confuse + and x- could colour code

Provide an arrow for direction when calculating

Opportunities for lots of estimation activities

Place blob of blue tack on ends of ruler /dycem

Use a calculator with large keys

Use real money or stick money on small lids

Provide see through pencil case for storage of equipment

Use ICT to create graphs

Use funnel for capacity work

Digital or large scale for weighing and measuring

Access to 100 square

Use template /stencils for shapes

Allow for larger scale to draw graphs

Give template or pre drawn table to complete

Use concrete equipment to represent 2d and 3d relationships

Access to table chart/doubles chart

Prioritise time and money- really important life skills!

## Music

Adapt instruments for easier handling

Choose instrument to enhance success

Provide words to songs do not rely on memory

Use headphones to allow student to focus

Enlarge manuscript paper or use ICT

Buddy with competent student

Colour code instrument to promote placement of fingers

Ensure optimum position for playing instrument

Consider carrying instrument for pupil with motor difficulties

Provide time to over learn particularly if piece has to be performed

## PE

Allow plenty of time to change, allow child with difficulties to change first

Provide chair bench to sit on for changing-at the end of the line so student has more space

Allow time and space for child to move safely

Provide adapted/specialist equipment

Break down the skill

Use equipment to promote inclusion such as a T ball stand for rounders

Provide active and more passive parts of session

Encourage child to beat their own record rather than competing against others

## Science

Mark containers clearly to show where fluid has to be poured

Use dycem to prevent slipping

Use digital scale

Use a buddy system to provide assistance in practical activities

Use pourer or funnel for liquids

Confine tiny items in a plastic tray

Use anatomical models rather than rely on diagrams in books

Do not rely on tactile discrimination alone- allow visual and verbal description

Promote seating position

Provide stool with foot rest

Use commercially produced stencils

Take photographs of demonstration to prompt memory and sequencing

Provide digital photographs to allow student to record practical experiment rather than

Reduce mobility around the classroom

Use larger containers with good grip

Provide adult assistance to be used at the direction of the student

Use unbreakable containers

Provide individual set of adapted equipment

Use alternative measuring equipment that does not require as precise a movement

Part prepare practical work

Teach safety techniques/ skills needed

## Modern Foreign Languages

Use colour coding to match English and foreign word

Restrict reading aloud in class if this will impact on self esteem

Provide easy to read dictionary and provide alphabet strip on the inside cover

Use computer software to support student

Highlight part of word such as endings

Apply new words in a familiar context

Avoid copying from the board-give copy to student to highlight

Use Dictaphone

# Improving the Accessibility of the Curriculum through ICT

Using the checklists -

The following checklists are designed to help you work out how to make classroom ICT accessible to pupils with additional support needs and disabilities as well as others in the class. Keyboard and mouse skills are often a problem for those with fine motor difficulties.

If ICT is to be used to promote inclusion the equipment needs to be accessible to all learners in the class. Access features are already built into the operating systems of modern computers and into software applications. Often this means that a range of users can access programs without having to add any extra software or hardware. The accessibility options mean that the computer can be modified to suit the user's individual needs. For example, the font can be enlarged making it easier for pupils to see the letters on screen, or the computer can be set to avoid sending strings of unwanted characters because the pupil can't get his or her fingers off the keys fast enough

## ICT Check list

Problem	Possible solutions
<p>Pupil can't see the font in the whole computer system e.g. can't read the menu bar or the names of icons are too small.</p> <p>Long – term solution</p>	<p>An individual ICT profile can change – the font and size, the colours of foreground / background for the whole computer system, mouse and keyboard settings.</p> <p>High Contrast settings are one of the options.</p>

Temporary solution	Set a better contrast between the text and the background by changing their colours or selecting the computer's High Contrast setting (SHIFT ALT + PRINT SCREEN).
The cursor or screen pointer is too difficult for the pupil to locate.	Change to a larger / thicker pointer, and / or add a trail to the screen pointer using the Mouse Control Panel.
The glare on the screen from reflected light is uncomfortable.	Re-position the monitor or the pupil, especially making sure that light doesn't shine straight onto the monitor. Alter the lighting conditions.
Problem	Possible solutions
The pupil complains of fatigue when working at the computer.	Check the heights of the chair, table, monitor, keyboard and mouse to make sure they are appropriate for the size of the student, re-arranging or re-positioning if necessary. Tilt the monitor to a better angle if it is adjustable. Place a wrist support in front of the keyboard. Use a different keyboard / mouse Check use and ensure pupil is not working at the machine too long.
The pointer moves too quickly across the screen.	Change the mouse speed via the Mouse Control Panel.
Pupil can't double-click the mouse button fast enough.	Increase the setting for the time allowed via the Mouse Control Panel. Use a programmable mouse or roller ball to give a double-click when the button is pressed. Apply 'Sticky Keys' (Through control panel or pressing the shift key 5 times) eliminates the need for keys to be pressed down together, such as CTL,ALT, DEL
It is difficult for the pupil to hold down the mouse button and move it at the same	Turn on the click-lock access facility. Use a mouse or tracker ball that has a

time.	locking facility. Use a separate switch plugged into the mouse, trackerball, or via a switch interface.
Moving the mouse around the table to navigate is causing difficulty.	Use a different mouse mat to slow down or speed up mouse movement. Use a tracker ball, joystick or other pointing device rather than a mouse.
Strings of unwanted characters appear because pupil can't get fingers off the keys fast enough.	Use the Keyboard Control Panel or Accessibility Options Control Panel to switch off or slow down the keyboard's auto-repeat setting.
I can't make any of the changes because none of the Control Panels listed is available.	If the computer is on a network it is very likely that the Control Panels are 'hidden'. In order to make changes you (or someone else) needs to be able to open the Control Panels folder. How to tell if you can access the Control Panels folder: if you can click on <u>Start</u> then <u>Control Panels</u> (you might have to click Start > Settings) and the Control Panels folder opens up, you should be able to make the changes. If you can't access the Control Panels speak to the school technician or local authority ICT contact and explain what needs to be changed.
Pupil can't see the text in the word processor or other program.	Change the font size in the word processor. Change the font style in the word processor e.g. to bold. Set a better contrast between the text and the background by changing their colours. Use a word processor with a text-to-speech facility so that the pupil can get auditory support e.g. Textease with speech.
The keyboard is too complicated, with lots of keys that the pupil doesn't need.	Put a mask over the keyboard so that only the required letters are visible. Use a simplified keyboard or an overlay keyboard with a simple 'qwerty' keyboard



	overlay on it.
The keyboard has keys written in upper case and the pupil has difficulty recognising them.	Stick lowercase letters over the letter keys to make them stand out. Use an overlay keyboard and make a lowercase 'qwerty' keyboard overlay for it.
Typing every letter is slow and laborious for the pupil.	Teach keyboard awareness with a typing tutor program. Provide ready-made word banks of the key vocabulary the pupil will need for an activity, either on screen or on an overlay keyboard. Use a word predictor that runs alongside the word processor. Use paired writing with an adult or peer to share the task of scribing. Use a speech recording device for recording ideas or dictating notes
The pupil uses text-to-speech software but it distracts others.	Use headphones.
A pupil can see the font on screen but has difficulty reading the printout.	Change to a larger font before printing out. (CTRL + } KEY)

# **Top Tips for Including Pupils with a Physical Impairment in Design Technology (Home Economics)**

- Use adapted equipment to enable adult support to be reduced and to develop independence and skills.
- Allow student to be involved in choosing, trying out and reviewing adapted equipment and products. It is important that they are aware of the products available to support their independence.
- Ensure student has listened to and understands appropriate and safe techniques around food preparation.
- SISS PI Teacher has box of equipment for students to try.
- Use peelers in a downward direction.
- Use “good grips” for all tools, OXO produces a range.
- Use a shovel or a scoop rather than a spoon to get food out of pan/frying pan.
- To cut an onion, slice into quarters then peel the layers.
- Adjust the ingredients to support a child with physical needs for example a recipe to include mince rather than dicing meat.
- Wooden handles can be useful especially when hands are wet.
- Use a jug to add ingredients to the pan on weighing scales.

- Use a flour dredger rather than a sieve for flouring a surface evenly.
- Digital scales with visual prompt to return scale to zero between ingredients are useful.
- Use non slip mat under chopping boards and on trays.
- Pupils with motor difficulties will need to be given time to complete the task successfully and safely or use appropriate equipment to carry out task more speedily.
- Suggest student may rehearse techniques needed for next lesson. Liaise with parents around this.
- Use a countdown timer-use large one on interactive white board try *"Class Tools. net"*
- Use a big colander and small portions.
- Use the colander in the sink.
- For grating small items such as ginger, double the quantity to avoid grating fingers.
- Use Good grips grater with collecting box.
- Use the back of a spoon for easier spreading.
- Use silicone cake cases rather than paper as they are easier to separate.
- Use commercial egg separator
- Negotiate agreement to pre prepare some ingredients at home.
- If adult support required this should be used at direction student.
- Use small/lightweight saucepans.
- Use pan holder to keep pan still on hob.

- Discuss strategies/equipment that will be useful in each recipe and include this in planning.
- Use non slip mixing bowls, a handle may help.
- Choose one handled equipment for student with hemiplegia, see specialist catalogues for range.
- Children need to carry out fine motor tasks such as cutting and preparing at the appropriate height- seated or standing as appropriate.
- Look at kitchen ware and specialist catalogues to select appropriate equipment.
- Tongs might be easier to use than spoon and fork.
- Seek advice from Occupational Therapist if further specialist advice is needed.

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Lakeland and Homecraft Rolyan are two suppliers selling equipment that is useful for students with physical impairment and will help develop independence and important life skills.

Following Products available from -

Lakeland Tel 015394 88100

Prices quoted – March 2013



Microwave Plate 13935 £3.49



Oxo Good Grips Peeler 6367 £ 5.69



Good Grips Box Grater £9.99 15384



Jar Gripper 7704 £1.99



Magipull Ref 4418 £3.29



Culinaire One Touch Can Opener 166645 £21.99



Egg Slicer 16693 £2.99



Egg Separator 10896 £ 5.99



Scrudle 14621 £ 2.99



Grip and mix Bowl Trio 14268 £ 11.99



Individual baking Tray Ref 12504 £ 6.89



Silicone cupcake cases 15069 £4.99



I can cook Bowl Scraper 15612 £ 2.99



My Kitchen Compact Chopper 15860 £14.99

**Following Products available from -**  
**Homecraft Rolyan Tel 08444 124 330**



**Dycem Bottle Opener PR61628 £2.99**



**Can Pull Tin Opener 091096221 £ 3.25**



**Suction Brush for Vegetables 091078229 £6.45**





Dycem Mat 091102987 £8.00



Mini Cordless Jug Kettle 091100239 £33.00



Chopping Board 1096654 £37.46