

Introduction to Hand Strength and Dexterity

This presentation will help staff by:

- **Providing more information about this topic.**
- **Showing some additional activities to help support**

About Hand Strength

- Hand strength is a key feature of successful fine motor work, especially handwriting.
- Too much physical effort to create their written work may indeed cause holes in the paper
- Too little and we may not be able to read the marks made.



About Hand Strength

- Difficulty with core stability, gross motor skills, tone and activity engagement can impact upon hand strength.
- As these are all linked, we must remember to work from core stability outwards ensuring that children have the best chance of using their hands effectively to produce written work successfully.

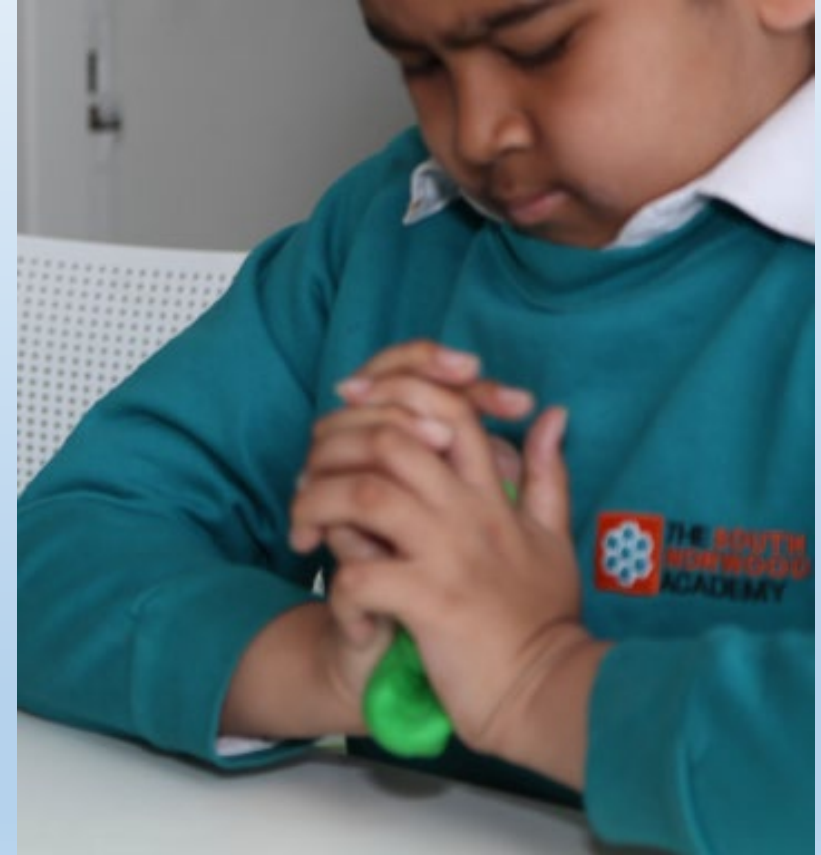


Hand Dexterity and Strength

- Hands have many small muscles which are required to be used together to hold and use a pencil.
- **Dexterity** comprises range of movement in the hands and control over these movements. Some children may have difficulty with too much range of movement or too little control.
- This causes problems with using their hands for tasks
- Good hand strength enables the child to write without their hands cramping or becoming tired.
- Good finger strength is needed in combination with this to hold and manipulate the writing instrument.

Difficulties with hand strength may be seen in:

- Difficulty developing pencil grasp
- Pushing too hard or too softly when using a pencil
- No strength preventing them from being able to manipulate dough when playing



Difficulties with hand strength may be seen in:

- Too much wrist flexion when holding a pencil
- Use of the shoulder or elbow when completing fine motor activities
- Difficulty with daily skills such as opening packets/jars; opening and closing zips for example



Difficulties with hand strength may be seen in:

- Hand fatigue
- Writing becoming less legible over time
- Poor cutlery skills



Activities to Support Hand Strength

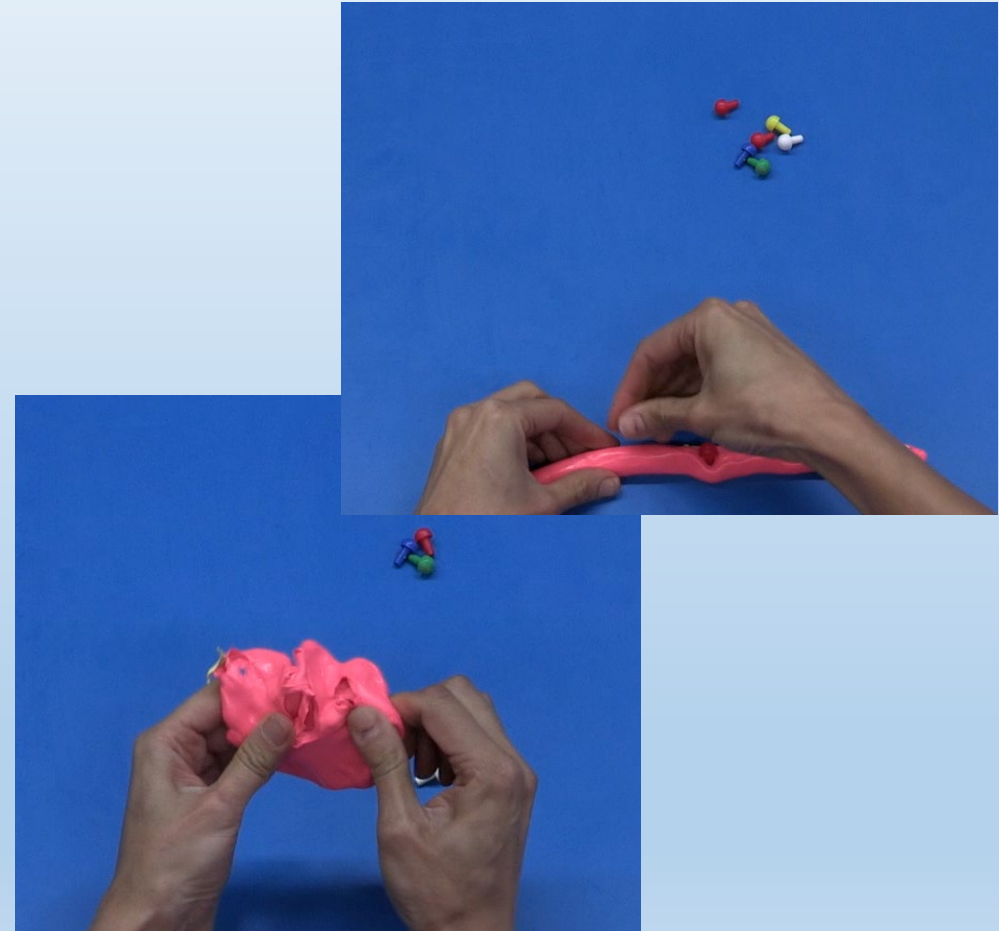
- Using dough or putty – making letter shapes - resistance work with putty will increase hand strength.
- Water play – squirty bottles under water, squeezing wet sponges – squeezing will promote strength in flexor muscles in the hands



Activities to Support Hand Strength and Dexterity

- Roll in ball and make into sausage shape
- Put pegs in
- Roll again
- Use hands to find pegs

(See video in the Handwriting Section for an example of this.)



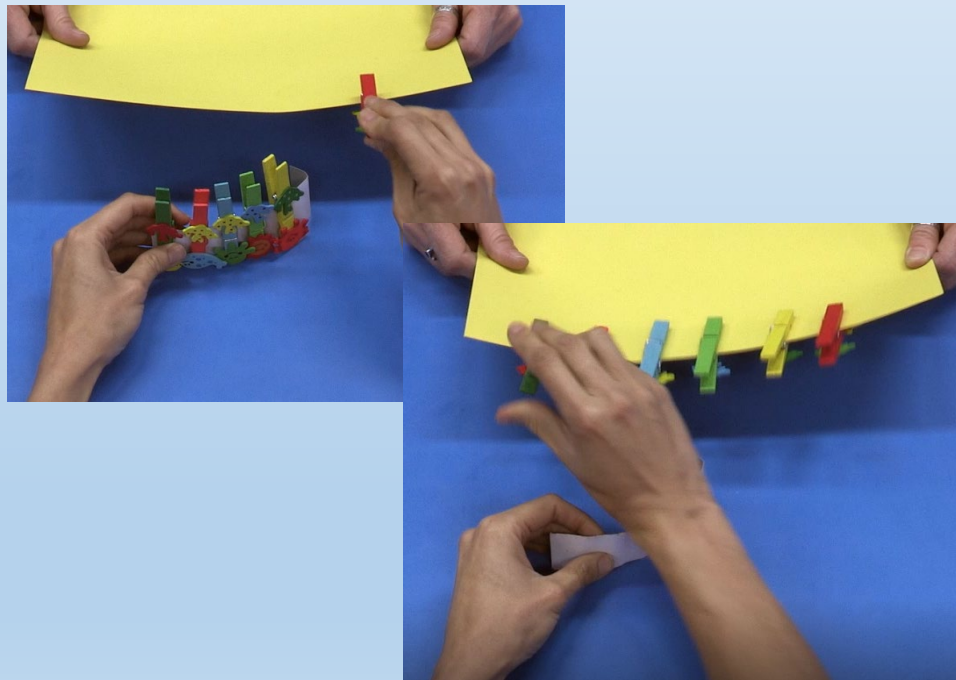
Activities to support hand strength

- Popping bubble wrap – this will promote strength in a pincer grasp required for picking up small objects
- Screwing up paper – a fun activity that will increase bilateral hand use and squeezing strength

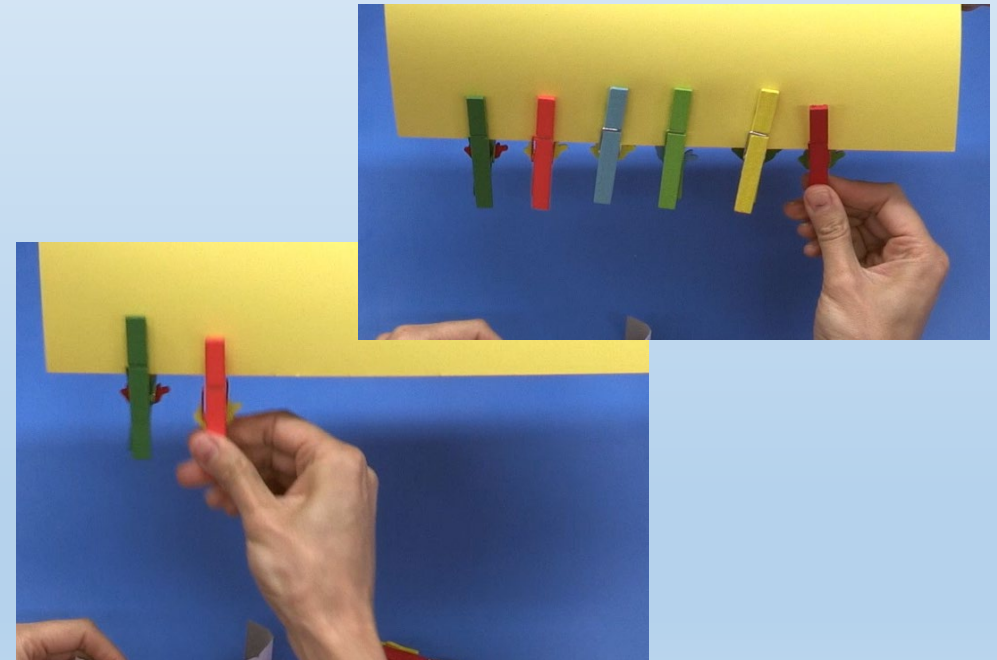


Activities to support hand strength

- Clipping pegs to card.
(See video)



- Take pegs off from a different angle (reach from below)
- Different wrist position



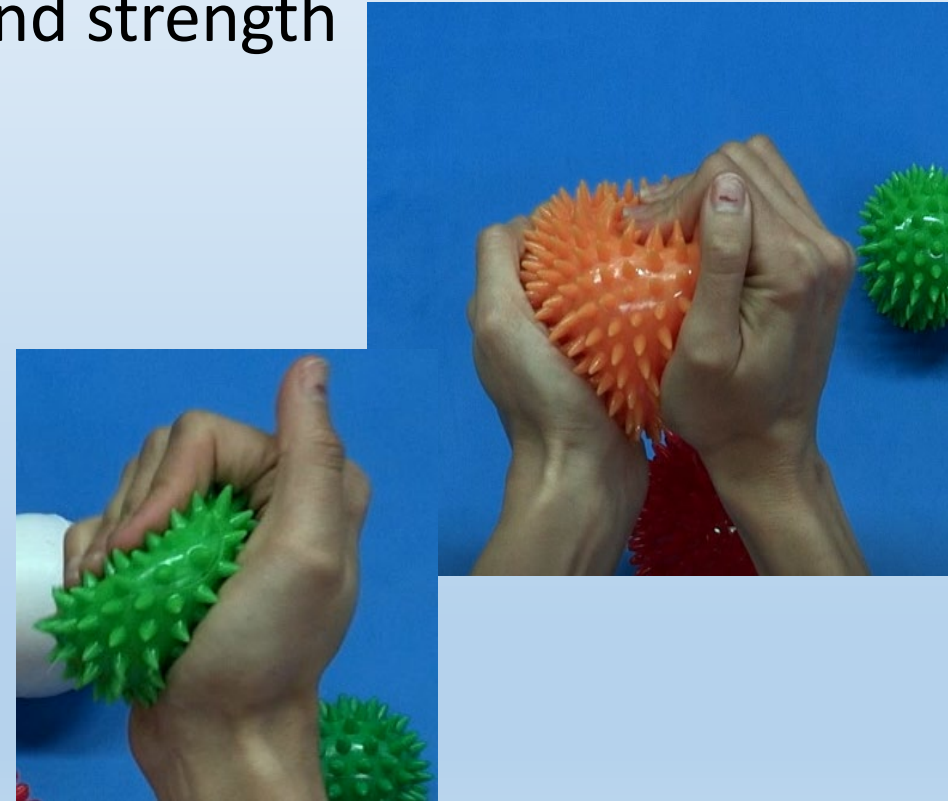
Activities to Support Hand Strength

- Walk a ball along the table using fingers – completing this will promote isolated finger movement and use the very small muscles of the hands



Activities to Support Hand Strength

- Chair push ups – this increases shoulder and upper limb stability
- Use textured balls to promote hand strength



Activities to support hand strength

- Hand squeezes



Activities to support hand strength

- Work at an easel to increase wrist extension
- Increasing wrist extension promote a tripod grasp required for holding a pen

