# Posi+ive Eye 

## Number

Resources to support:

- Counting
- Place value
- Addition
- Subtraction
- Multiplication
- Division
- Fractions


## Counting

## Numerousness

Understand number as a whole. Understand qualities of one, two, three etc (develop understanding of numerousness.)

## 1.Number boxes

A set of the same boxes each containing one, two, three items etc.
Add a number to the top of each box, using beads (Hobbycraft.) The ones shown in the picture are from a number line. The appropriate numbers of beads are stuck to a small rectangle of card and have Velcro on the back. Child could be given an empty box and asked to find three, four, five objects from their environment or from a basket, which were the same. Or they could be given the number squares and asked to place the correct one on the top of each box


## 2. Understanding oneness of one and twoness of two - Robert the Robot



Children make a model of a robot with one nose, one mouth, two eyes, two ears, one body, two legs, two arms, two feet. Each body part is labelled in Braille or large print. Build the Robot in 3D using recycled boxes and items and then make a 2-D version and write a story about how the child made it, or about Robert's adventures. See separate sheet for more ideas.
3. Tom ate one pizza, Bethany stayed for one night at one nana's house - see separate sheets for details

## 4. Pumpkin straw counting activity

Pumpkin straws from Hobbycraft with 5 pumpkins per set on each straw, purchased at Hallowen time.


## 5. Counting with Montessori Beads-

http://www.ebay.co.uk/itm/like/181661165729?limghlpsr=true\&hlpv=2\&ops=true\&viphx=1\&hlpht=true \&lpid=108\&chn=ps\&device=c\&adtype=pla\&crdt=0\&ff3=1\&ff11=ICEP3.0.0L\&ff12=67\&ff13=80\&ff14=108


## 6. Counting activities with stacking beakers and rings

Order and stack by size largest to smallest. Arrange in a line on the table - order by size and number. Collect number of items from around the environment for each pot.


## 7. Bucket number line and counting activity:

As above number each bucket and collect number of items. Here 8 buckets were used and were also labelled with each letter of the word 'bucket.' Children collect 1 object beginning with a 'b', 2 objects beginning with 'u' etc.


## 8. Detachable number line with sticky back beads



Detachable individual boards stuck on with Velcro, can be used for other counting activities. Use with spinner to play snakes and ladders (up and down the number line.) Beads from Hobbycraft -
http://www.hobbycraft.co.uk/advancedsearchresults.aspx?filter=ProdType~Papercraft+Buttons/\&quer $\mathrm{y}=$ self\%20adhesive\%20beads

Number line made of foam board also from Hobbycraft - http://www.hobbycraft.co.uk/hobbycraft-a1-white-foamboard/539724-1000
9. Number line with words, numerals, and objects


Each number has its word name, the number and matching number of counters in a dish. All parts are attached with Velcro so that a number of activities can be played. Sticky back bath edging strip is used to delineate between the numbers. Candle holders were used for the pots. The words and numerals were brailled on sticky back Braille and then added to off cuts of laminated pouches. The number line base was made from foam board (Hobbycraft)

Self adhesive bath strip from B\&Q - Homelux PVC White Flexible Bath Seal (L)3.5m
http://www.diy.com/departments/homelux-pvc-white-flexible-bath-seal-
$135 \mathrm{~m} / 38121$ BQ.prd?gclid=CJvlxtO0jsQCFSQFwwodfxcAaw\&ecamp=SEAPLA38121 BQ\&ef id=VH 9NGwAAAC-cHgTc:20150304094403:s
10. Number line with detachable numbers on laminated pouches


Number squares made with off-cuts of laminated pouches, Braille numbers added on sticky back Braille paper. Cards attached to a line of Velcro on foam board (Hobbycraft)

## 11. Number line

5
www.positiveeye.co.uk

## Made with off-cuts of a bath tile from B\&Q (See number square idea)



Black foam self adhesive shapes added to the odd numbers.
Activity suggestion: Move all the odd numbers to the left of the middle strip and move all the even numbers to the right

Detachable tiles stuck on a Velcro strip along the middle of a foam board. Braille numbers added with sticky back Braille paper.

Beige glass and stone wall tile - B\&Q http://www.diy.com/departments/beige-glass-stone-wall-tile-I300mm-w300mm/260932 BQ.prd

## 12. Number Rods

Sold by Absorbent Minds, although coloured, the lengths can be distinguished easily and the rods fit in a neat box, making it accessible for children with VI.
http://www.absorbentminds.co.uk/cgi-bin/sh000001.pl?WD=small\ number\ rods\&PN=Stained-Small-Number-Rods-M 11 115A\%2ehtmI\#SID=13


## 13. Spindle Boxes

Sold by Absorbent Minds, these spindle boxes can easily be adapted for children with VI. Braille labels are added above each section. Numbers on white labels could also be positioned at each division. The spindles feel smooth and also have a pleasant wood smell. A lovely resource for the
child to enjoy using.
http://www.absorbentminds.co.uk/cgi-bin/sh000001.pl?WD=boxes\ spindle\&PN=Spindle-Boxes-0-4-and-5-9-M 11 13\%2ehtmI\#SID=13

14. Lollipop sticks and waxing spatulas. http://www.amazon.co.ukWaxing-Spatulas-Thick-Bag100/dp/B007JK42HQ/ref=sr 1 1?ie=UTF8\&qid=1425464864\&sr=8-1\&keywords=waxing+sticks


Count, sort, make patterns, use as a unit of measurement, stack, make shapes.

## 15.Hands on Counting tray

Sold by Eduzone, this tray has sections and numbers printed on the purple background in white. Black numbers on a white background have been added over the top, plus Braille labels.
http://www.eduzone.co.uk/cgi-bin/sh000001.pl?WD=tray\ counting\&PN=Hands-on-Counting-Tray211 407\%2ehtm|\#SID=329


## 16. Number drawers

## See separate handout

## 17. Identifying numerals using Numicon

http://www.amazon.co.uk/gp/product/0198487274?psC=1\&redirect=true\&ref =oh aui detailpage o0 7 s00


Match the number card to the correct piece of Numicon

## Number flash cards



Individual cards cut out with large print/Braille number added to each one. Could be used to make a number line also
18. Simple number line made with Velcro ornament protectors


Individual cards with one, two, three, four, five Velcro spots are made as an addition to this resource

19. Number fans - TTS Educational Suppliers - adapt by changing the size of numbers to suit the child's visual needs. Add Braille numbers and a texture indicator to each individual fan.
http://www.tts-group.co.uk/shops/tts/Products/PD1722990/Childrens-Pvc-Number-Fans-With-Decimal-Point-30pk/

20. Counting game - Adapt a game you already have and make it accessible for the child


A version of the Beetle game, it was simple to adapt this game by adding Braille to each body part of the Teddy Bears.

## 21. Tactile Dominoes



Make your own dominoes with foam shapes (Amazon) and off-cuts of foam board (Hobbycraft)

## 22. Rocket Men Number Matching Activity



Cut 5 rocket men shapes in one texture and 5 in another. Add Braille or large print numbers to each set. Add 5 velcro spots around the edge of the Lazy Sue and to the back of one set of Rocket Men. Child spins the Lazy Sue and sings 'Five Rocket Men going to the moon' when it stops they feel the number on the rocket man which has stopped at their position and find the matching rocket man from the second set.

## Lazy Susan - IKEA

http://www.ikea.com/gb/en/catalog/products/90074483/
23. Odd and even numbers with Numicon


## Place Value

24. Homemade Abacus - see separate sheet for instructions how to make

25. Wipe boards with place values -

Wipe board slides in and out of the outer sleeve. Supplier: TTS Educational Suppliers http://www.tts-group.co.uk/shops/tts/Products/PD1723400/

26. Introducing decimal quantity

Sold by Absorbent Minds - an easily adaptable resource and suitable for children with VI. Braille and large print labels added to each section.
http://www.absorbentminds.co.uk/cgi-
bin/sh000001.pl?WD=introducing\%20quantity\%20decimal\&PN=Discount-Connected-Beads-for-Introducing-Decimal-Quantity-DM 12 12Q\%2ehtmI\#SID=33


## Addition and subtraction



Use Montessori beads - sold by Absorbent Minds
27. Use an abacus (RNIB)

28. Make a homemade dice


## 29. Addition square - see disk for copy

| + | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|  | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|  | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|  | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|  | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|  | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|  | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

## 30. Addition square - homemade version

Make an activity using a tile from B\&Q add numbers using Braille sticky back paper, play 'ZAP' the number. Choose a number for the child to locate and find, placing a bead or shape on the number when found. Provide some further activities for the child to do, find a particular number, count up, count down, add 5 subtract 5 etc. Activity sits on laptop tray from IKEA. Activities are brailled and stuck on laminated strips, located in plastic pockets taped to the back of the laptop tray. Plastic pockets made from make-up brush wallets.

Laptop tray - BRADA - IKEA http://www.ikea.com/gb/en/catalog/products/60150176/


## 31. Addition and subtraction activities with a Lazy Sue



Use the spinner/dice to play the game, when it lands on a 6 spin the Lazy Sue. When it stops, child reads the number on the top of the box which lands in front of them. Open the box and take a number out, add, multiply, subtract or divide the number. Choose correct answer from number line and place in pot in middle.

## 32. Subtraction and addition activity

Roll the dice and when it lands on 6 choose a flag from the central pot, read the sum, which has a number missing, place the flag in the correct tower around the edge of the Lazy Sue which has the missing number at its base.

Lazy Sue with activity mat. Unifix used to make towers. Unifix velcroed to base with numbers added in sticky back Braille.


Green table mat from IKEA http://www.ikea.com/gb/en/catalog/products/60236217/

## Multiplication and Division

33. Times Square - see disc for copy


## 34. Division, sharing containers

Dividing and sharing between two. Using plastic food containers-two compartment salad box etc. Collect a range!


## Left: Star Wars foam tray for model parts - Sold by Amazon.

http://www.amazon.co.uk/gp/product/B00PW88BJM?psc=1\&redirect=true\&ref $=$ oh aui detailpage 0 04 s00

Circular sorting tray by Learning resources. Right: Muller Light Yoghurt Pots - make great sorting trays
http://www.learningresources.co.uk/product/circular+sorting+tray.do?from=Search\&cx=0


Below left - paint palette makes great sorting tray for small beads and shapes, and can also be used to make patterns. Below right - use plastic plates from PoundLand, they make good sorting and division resources.


## 35. Sharing/division activity - using wedding favour boxes

Wedding favour boxes attached with Velcro to a foam board activity base. Shapes added to the top of each box can also be used as a matching shapes activity.


Below left: Small pie tin used with discs collected from lid insides
Below right: MullerLite Pots - velcro to a foam board set in a square tray.


## 36. Hello Kitty Tea Party Activity



Fourness of Four. sharing between four, (also counting four, addition and subtraction activities)

Four cups, four plates. For four people, how many cups, plates, how many cakes for four people, how many pieces of cake from one cake? Take one plate away, how many left? Take one cup away, how many left? See separate sheet for further ideas.

## Fractions



## 37. Sharing the cake

Using 4 mouse mats on a 'Lazy Sue placed on top of each other.
Each divided into $1 / 8,1 / 4$ and $1 / 2$ respectively.
Add names of children on laminated tickets and invite them to share the 'cake.'

## 38. Fractions activity - Early Learning Centre

Add Braille labels to each section


## 39. Fraction Circles

Sold by Absorbent Minds - http://www.absorbentminds.co.uk/cgi-
bin/sh000001.pl?WD=plastic\%20circles\%20fraction\&PN=Discount-Plastic-Fraction-Circles-
DM 15 12\%2ehtmI\#SID=33
Particularly suitable as these fraction circles stack in a container, one on top of each other, giving the understanding of how each is segmented from one circle. Includes $1 / 3,1 / 4,1 / 6,1 / 8,1 / 2,1 / 5$


