

Symbols or text. Word banks or worksheets.

Supporting students who use AAC to access
the curriculum.



Marion Stanton

Communication and Learning Enterprises

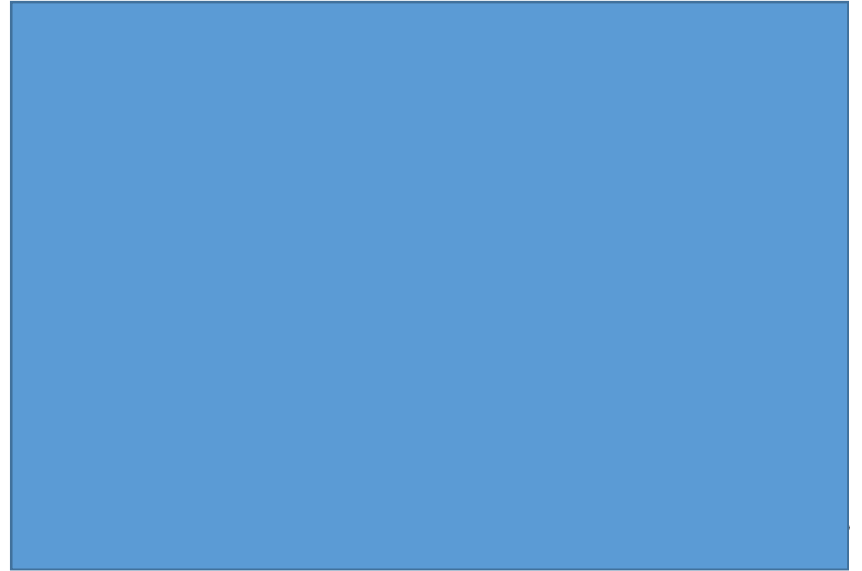
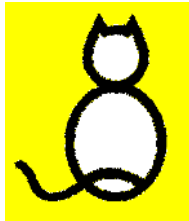
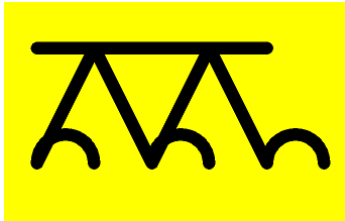
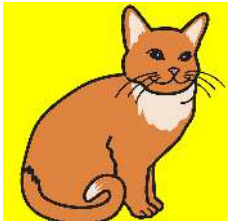
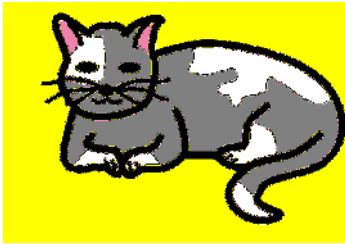
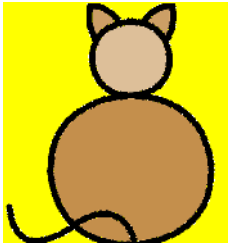
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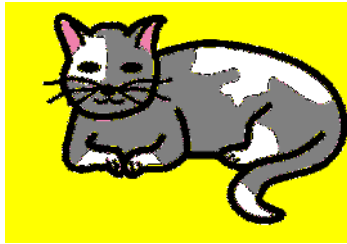
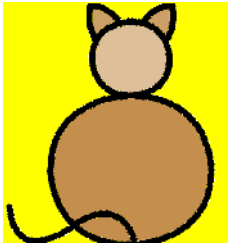
Symbols or Text

- There is very little research about the value to teaching symbols versus the teaching of text for writing as well as communication.
- Time spent on teaching symbol use detracts from time spent on basic, text based literacy. AAC users are already disadvantaged by the time it takes to complete a task. Extra time spent on learning symbols may mean that literacy acquisition is impeded even further.
- Extra time spent learning to navigate through symbol based icons on dynamic screens may well be a further impediment to learning for the AAC user. Reliance on vocabulary that we have put there limits choices.

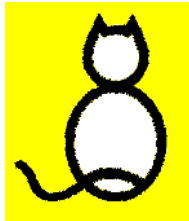
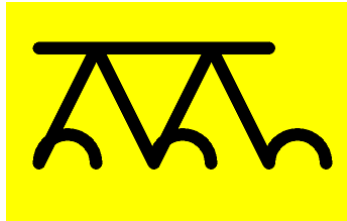
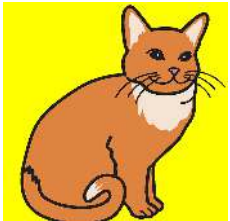
What do these symbols say?



Why not just teach the word?
These symbol meanings are fairly obvious.



cat cat



cat Cat

How it might be presented for a mainstream child with a view to learning to read, spell and write. It would be unlikely that the word would be written above as is the convention for AAC vocabularies.

cat

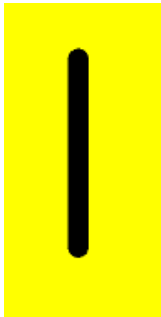
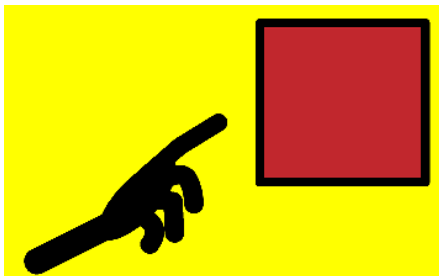
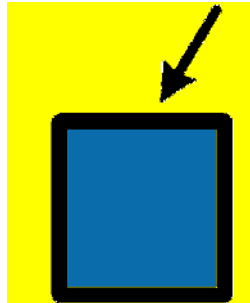
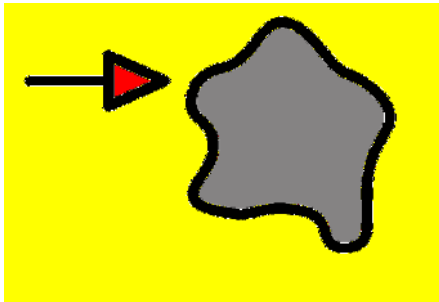


cat

cat

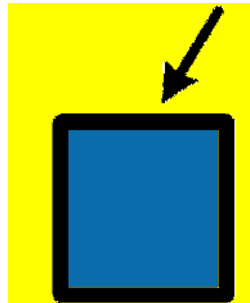
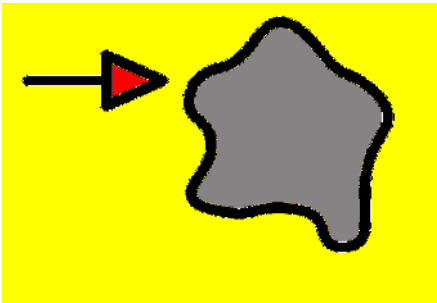
Symbolising core words

What do they say?



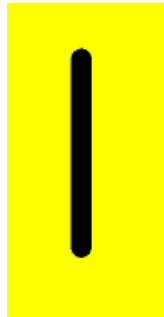
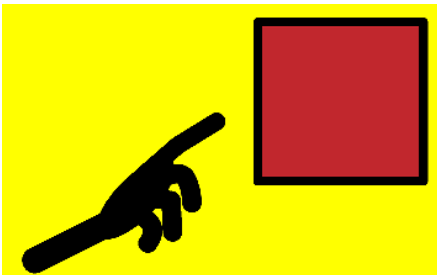
Symbolising core words – Do we need to? Why not just teach the word?

The meaning of these symbols is not obvious.



it

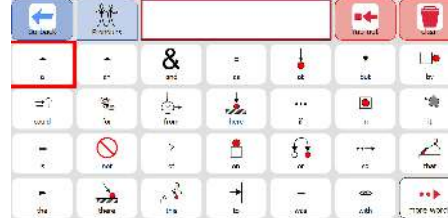
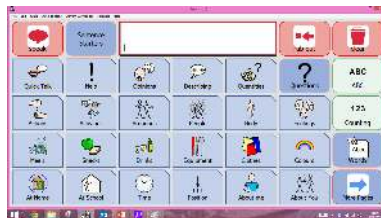
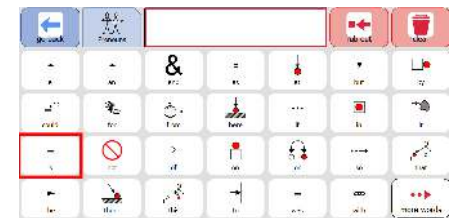
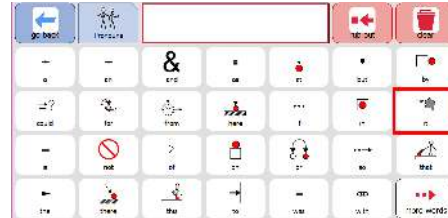
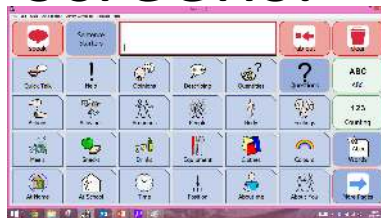
it



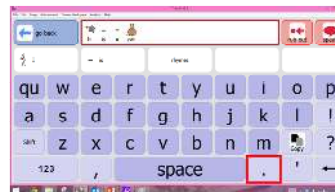
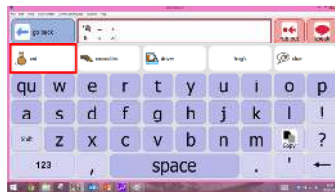
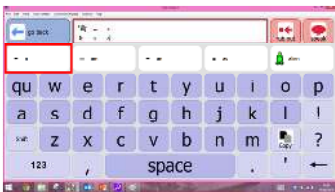
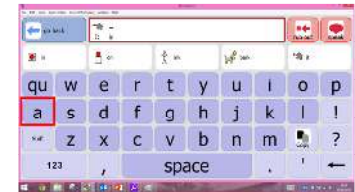
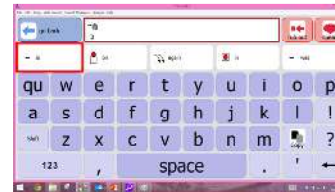
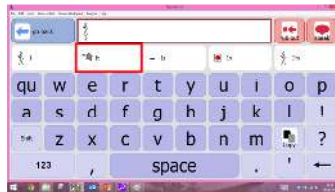
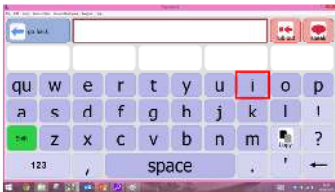
it

it

“It is a cat”. Dynamic Screen versus Spelling with word prediction. More hits are needed to navigate through whole words on dynamic screens.



It is a cat. Slightly less hits. Most word prediction systems learn the words that are more regularly typed so that this would get even quicker.







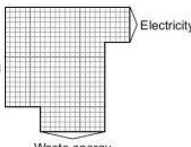
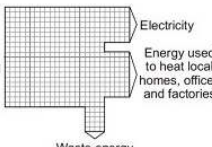







Congratulations
Adam Lenartowicz on
passing your GCSE's.

Maths – A
Physics – B
English – C
Chemistry - C

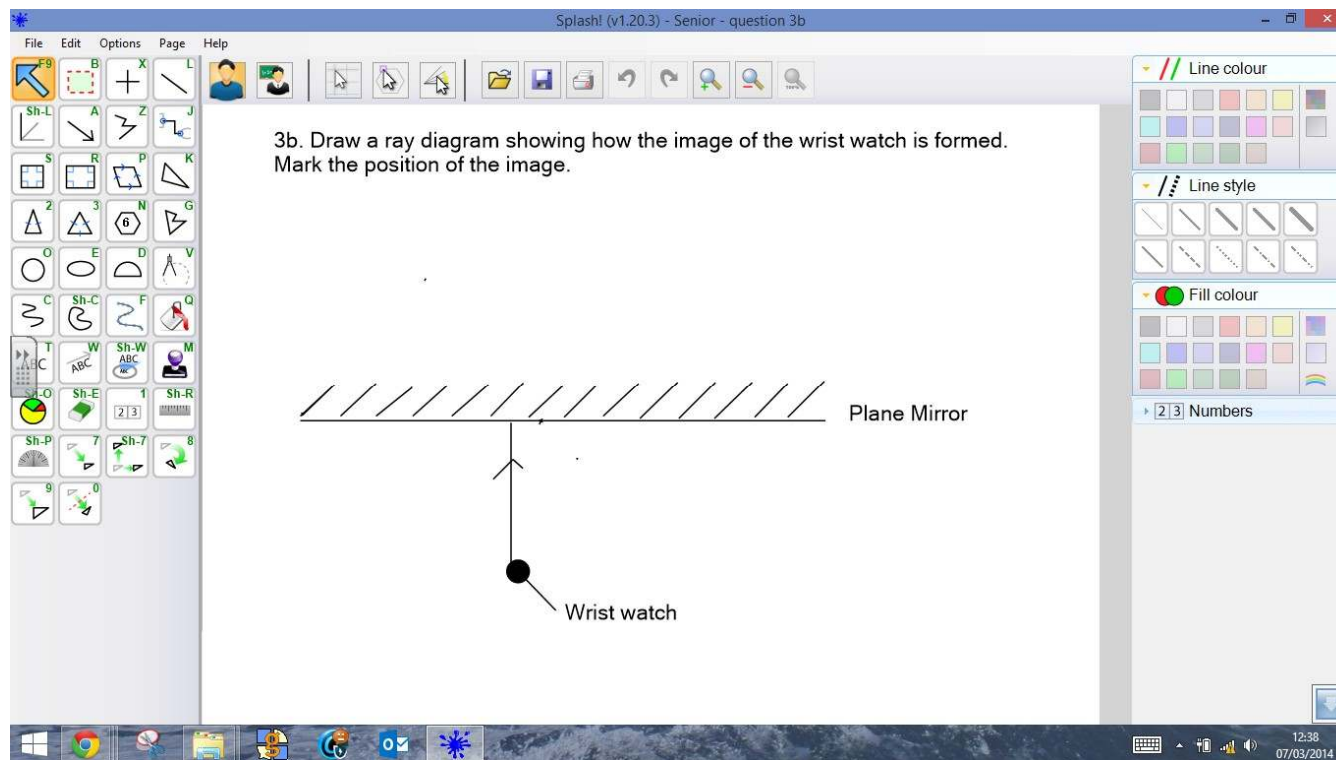
5 years ago first essay in secondary school consisted of 2 short sentences. Progress to C at GCSE is more than maturation alone could account for.

- Remedies included:
 - Powerful motivation on his own part.
 - lots of helpful specialist input from SENCO, SALT, Specialist advisory teaching service and CandLE practitioners.
 - Lots of adjustment to his access to technology so that he could input and output in the most **time, energy and effort efficient way** as independently as possible.
 - Subject teachers who were willing to adjust their teaching to support him.
 - A group of dedicated TA's who learnt how to help him use the technology effectively and then 'back off' and let him get on with his work.

Mock Physics GCSE page

 Back			 Speak	
review work	<p>1 The Sankey diagrams show the energy transfers in a traditional coal-burning power station and a combined heat and power (CHP) station.</p> <div><div><p>Traditional coal-burning power station</p></div><div><p>CHP station</p></div></div>		<p>A CHP station is usually used to meet the demand for electricity within the local area. The electricity is not transmitted and distributed through the National Grid.</p>	 Stop speaking
1 mark			.	
 Save			Enter	
 Spelling	1 d i. What is the National Grid?		listen again	
	A system of cables and pylons.		1dii	
	A system of cables, transformers and power stations.	A system of cables and transformers.	 Undo delete	
 Home	tick	✓ tick	 Save phrase	
			 Delete word	

Using Spash to draw a ray diagram accessed using Intellikeys mouse functions.



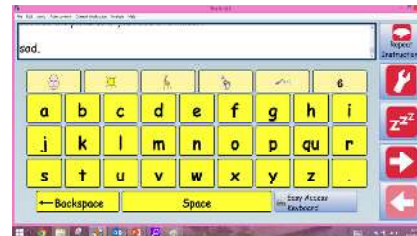
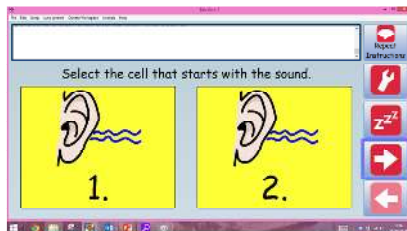
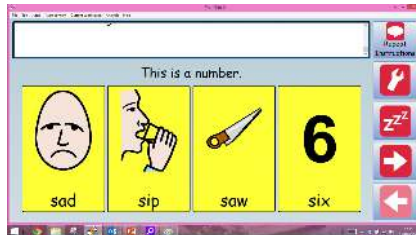
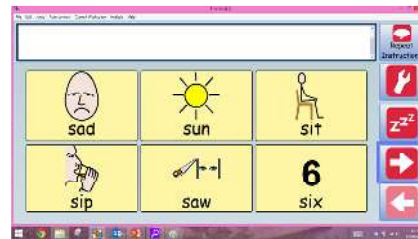
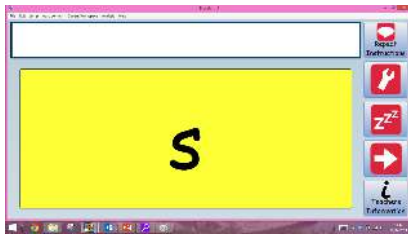
Negotiating with the exam boards who agreed to:

- Alternative formats.
- 4 x extra time resulting in some exams going over 2 full days.
- Use of word prediction for everything including English.

Didn't get more than 1 hour early opening so he had to start later.

Building blocks – Phonics for All

Time is the enemy.
Students who use AAC
can't wait until they have
mastered phonics to start
reading and doing
comprehensions nor can
they wait until they have
mastered lower case
before they learn upper
case.



- Phonic for All has been written by Marion Stanton from CandLE and is based on a combination of examination of the research around literacy and AAC and her own 25 years experience of teaching students who rely on AAC to read and to access the curriculum.
- It uses a range of phonics and whole word approaches including the currently mandated systematic, synthetic phonics.
- It incorporates activities which aim to support the development of:
 - Phonic sounds production
 - Inner speech
 - Working memory
 - Comprehension
 - Spelling
 - Reading
 - Writing

Don't apply the rules for a non-disabled population for a population that uses AAC.

- We might get exhausted doing the same task for 2 days but they might not. They may be able to work on for a lot longer on account of the different pace of working.
- We might learn better with synthetic phonics and it might be a skill that AAC users need to learn BUT they need support in their preferred way of working as well with bridging to the learning that you want them to achieve.

Activity – Accessing a worksheet

- Please could you pick up the worksheet and use only the resources in the envelope to answer the questions.
- Now please use a pencil and fill out the worksheet.
- The activity consisted of using relevant words (equivalent to a word list) to answer the questions and then just filling out the worksheet with a pencil.
- FEEDBACK. What made it easy? What made it difficult? Participants overwhelmingly found it easier to fill in the worksheet with a pencil and yet, instead of trying to emulate the worksheet, we tend to give students who rely on AAC a list of word and then expect them to provide the answers.

If we make the motor task difficult we reduce the students thinking capacity.

- Access needs differ for curriculum and communication layouts.
- 80% physical access accuracy in communication might let you repair most communication errors. If the student asks for a “drink of cake” you are pretty sure that they mishit the category snack when they meant drink. If the students say that Henry VIII had 5 wives they got the answer wrong even though the 5 is next to the 6 and it could well have been a mishit.
- For curriculum we are looking to 100% physical access accuracy where possible. This means that we may have to increase cell sizes.

ACCESS - One size does not fit all! Consistency doesn't necessarily mean the same!

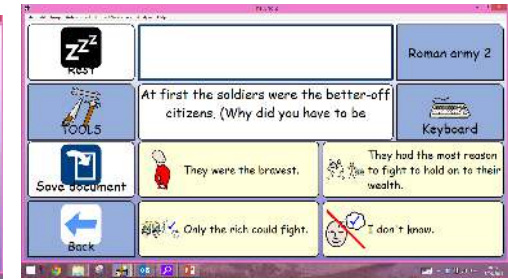
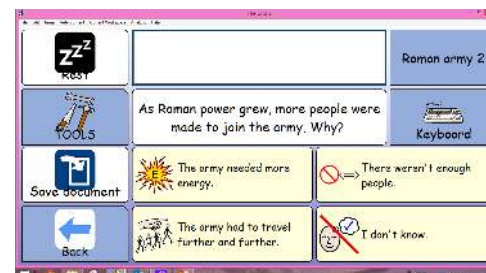
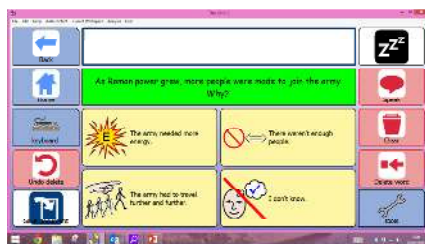
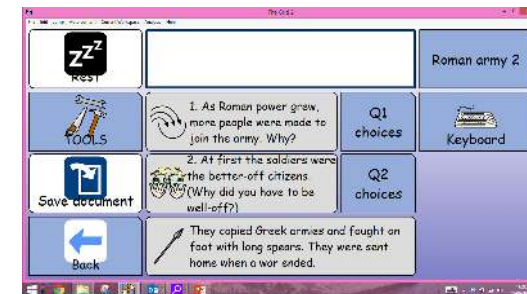
Year 7 Romans for A

5x6



Year 7 Romans for B

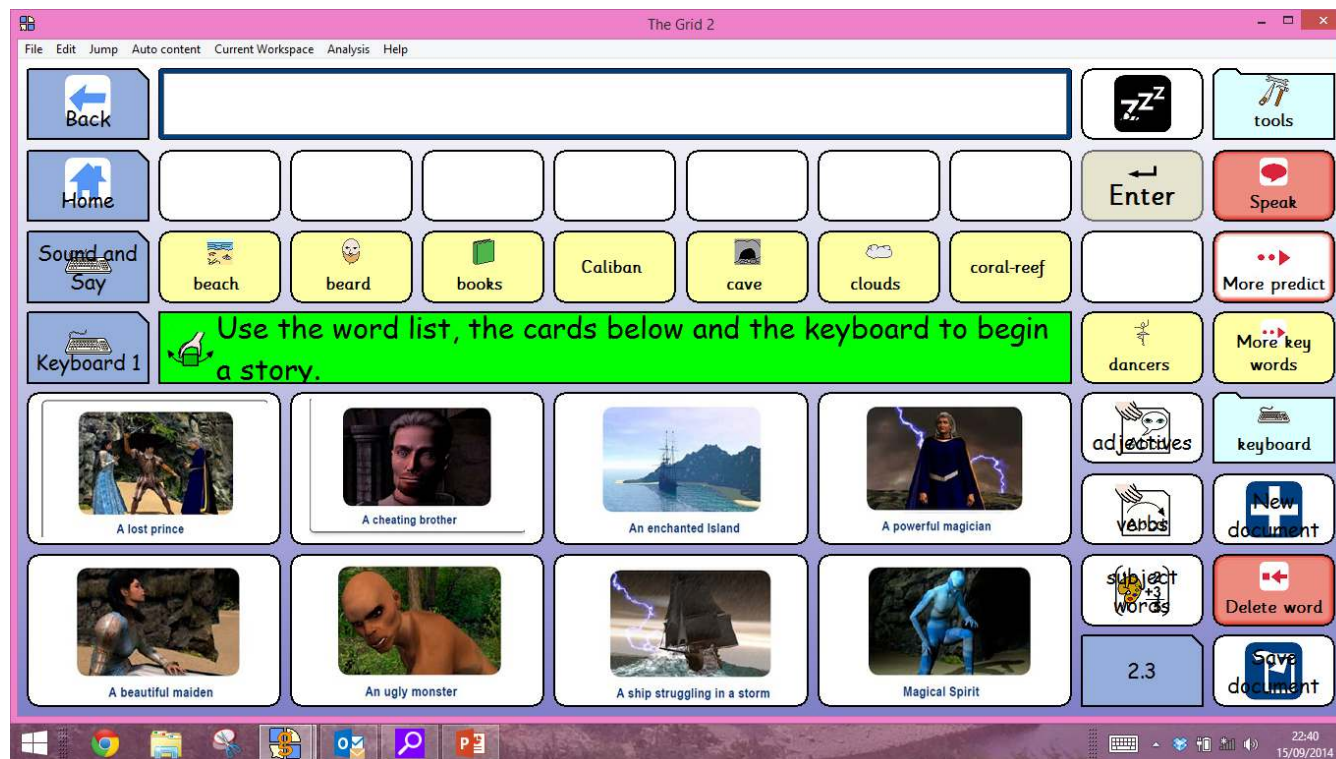
4 x 5



WORDLISTS! A bunch of unconnected words to write your answer. Generally without core words.

- Various approaches. It depends on the needs of the student. Each will need something different.
- Multiple choice rule – A best answer, an answer that might get you some marks, a wrong answer and the most commonly made mistake.
- Work towards writing answers using spelling or spelling combined with semantic compaction.
- Use the opportunity to develop grammar. Word lists can be useful for adjectives, verbs and subject specific words. Try to let them spell core words.
- DON'T use the student's vocabulary for the curriculum. It is like asking them to speak all their answers without giving them ALL the words they need. Also, it will clog up their vocabulary.
- Using subject specific users in the style of the vocabulary will enable the word prediction to learn relevant vocabulary. This will support spelling and reading as well as speeding up the rate of output.

Integrating wordlists. The example below is using a word list combined with multiple choice and spelling. Wordlists alone are not enough.



Adapting the secondary curriculum for students with severe learning difficulties. It may look complex but if you look carefully it is actually a word and colour matching exercise using the same learning materials as the rest of the class.

The Grid 2

File Edit Jump Auto content Current Workspace Analysis Help

Home

Speak

Next

Save document

Clear

Listen again

On the periodic table the metals are

blue

red

key

atomic mass

symbol

name

atomic number

non-metals

metals

1 2 3 4 5 6 7 0

H Hydrogen

Li Lithium

Be Beryllium

Na Sodium

Mg Magnesium

K Potassium

Ca Calcium

Sc Scandium

Ti Titanium

V Vanadium

Cr Chromium

Mn Manganese

Fe Iron

Co Cobalt

Ni Nickel

Cu Copper

Zn Zinc

Ga Gallium

Ge Germanium

As Arsenic

Se Selenium

Br Bromine

Kr Krypton

Rb Rubidium

Sr Strontium

Y Yttrium

Zr Zirconium

Nb Niobium

Mo Molybdenum

Tc Technetium

Ru Ruthenium

Rh Rhodium

Pd Palladium

Ag Silver

Cd Cadmium

In Indium

Sn Tin

Sb Antimony

Te Tellurium

I Iodine

Xe Xenon

Cs Cesium

Ba Barium

La Lanthanum

Hf Hafnium

Ta Tantalum

W Tungsten

Re Rhenium

Os Osmium

Ir Iridium

Pt Platinum

Au Gold

Hg Mercury

Tl Thallium

Pb Lead

Bi Bismuth

Po Polonium

At Astatine

Rn Radon

Fr Francium

Ra Radium

Ac Actinium

Rf Rutherfordium

Db Dubnium

Sg Seaborgium

Bh Bohrium

Hs Hassium

Mt Meitnerium

Ds Darmstadtium

Rg Roentgenium

Uub Ununbium

Uut Ununtrium

Uuq Ununquadium

Uup Ununpentium

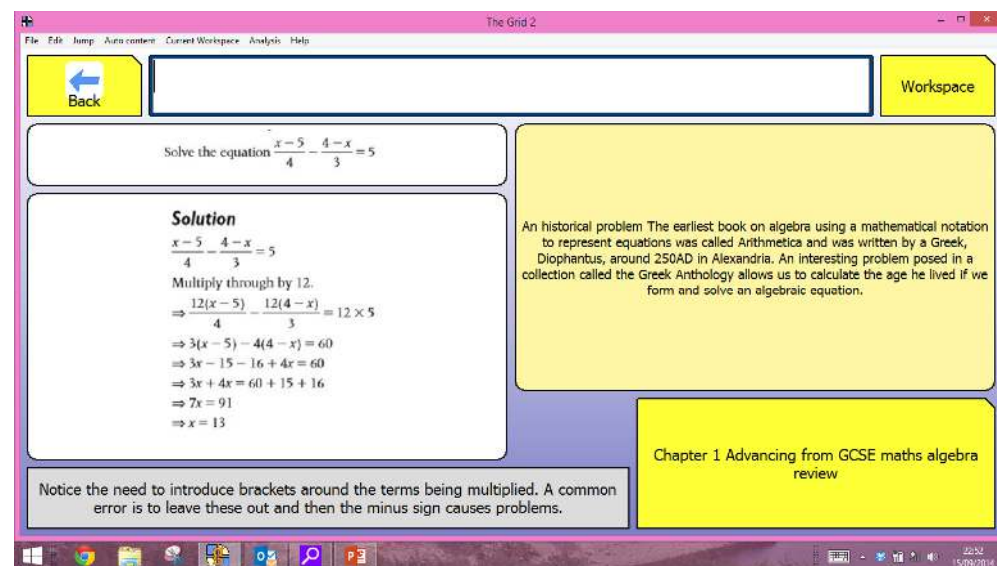
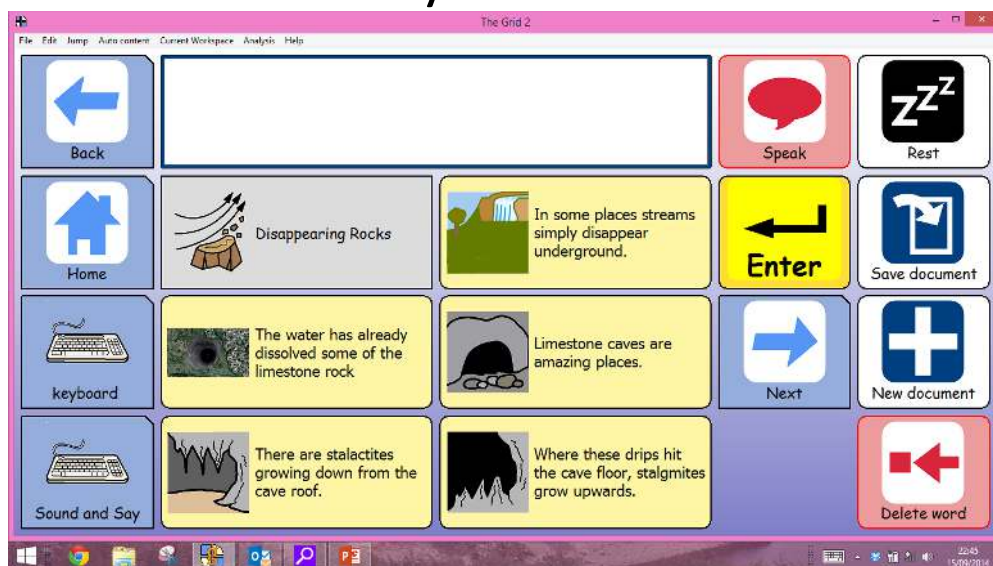
Uuh Ununhexium

Uuo Ununoctium

23:08 15/09/2014

Never mind the word list what about the text book and the teachers resources.

- If you need to complete the lesson after it has finished you need the same resources that everyone else had in the lesson. You can't "catch up" without it. Below are examples of pages adapted to be accessible to the AAC user taken from the text books that the other students have ready access to.



Don't get hung up on one piece of software! However, use the one with the most appropriate access.

The anecdote that goes with this page:
I was recently in a school observing a 1:1 session with a Speech and Language Therapist and a student. After they had finished working on communication using his vocabulary (with eye gaze) they moved on to some curriculum work using another piece of software that the SALT thought was needed for curriculum. It was not so easy to adapt for the student, didn't really support eye gaze and the student struggled. This could give the erroneous idea that the student is less cognitively able when it is in fact an access issue. I suggested the SALT use the same software that is used for vocabulary and the student was much more successful.



Examples of curriculum pages available for Mind Express

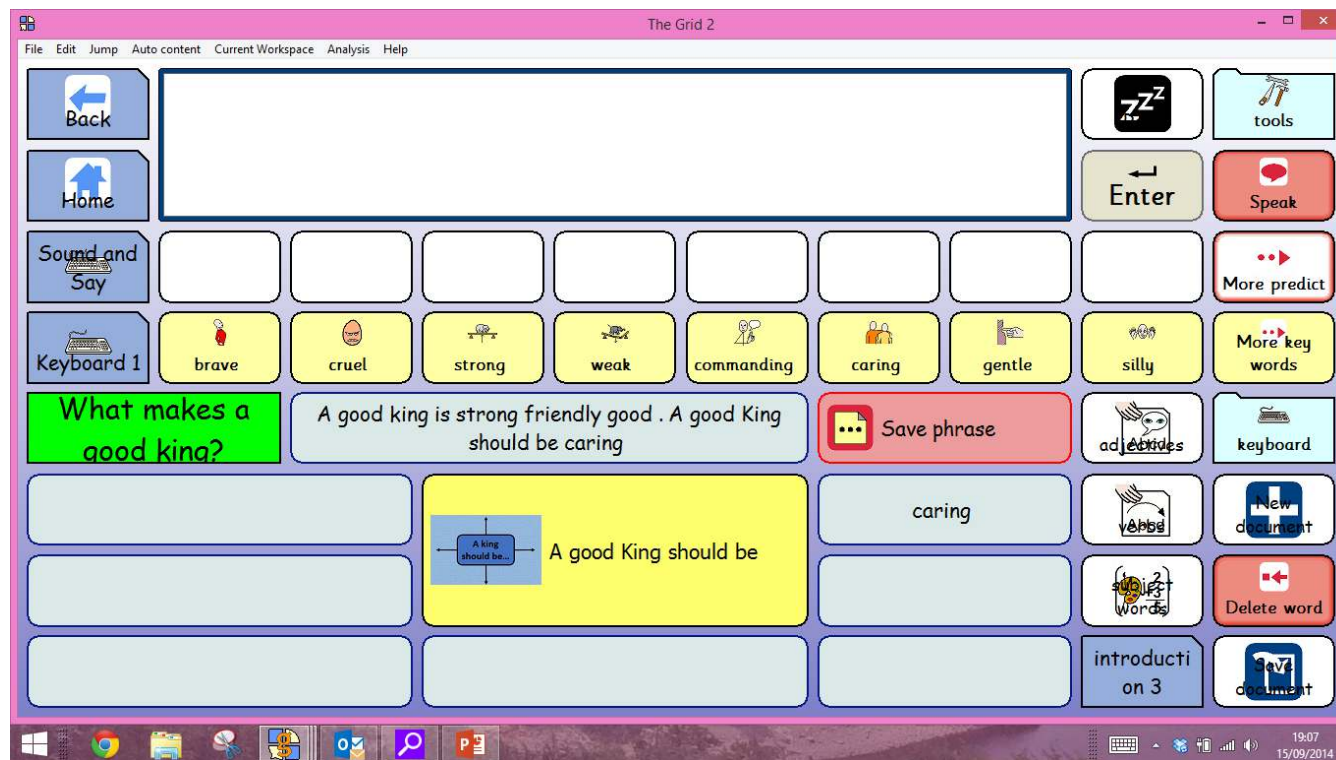


Examples of curriculum pages available for Clicker 6

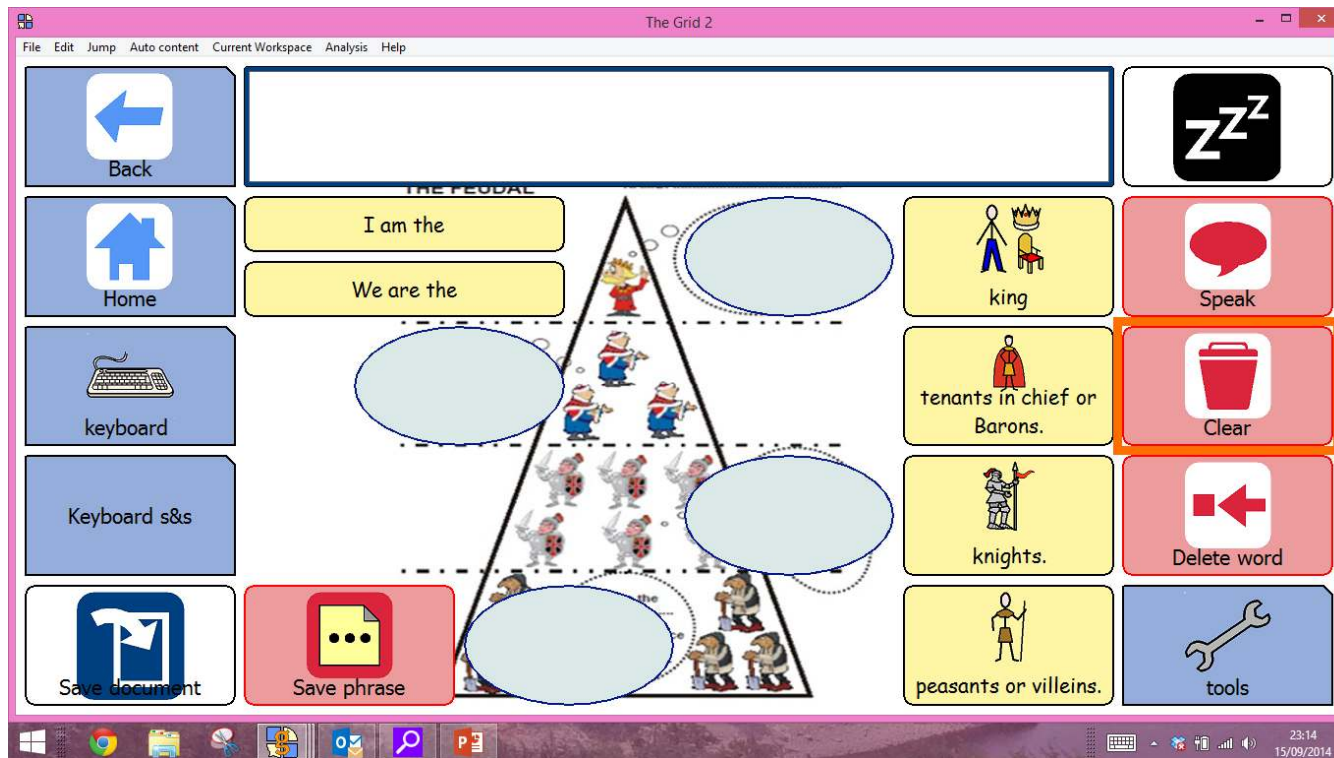


Examples of curriculum resources that have been made for Grid 2 following a teachers lesson plan.

Labelling! All kids label! In this exercise the student is deciding which words from a word list best describes a good king and then using eye gaze to “paste” the answer in the correct box.



Here the student is using the same “pasting” method to label a diagram.



The AAC curriculum coordinator

A role that we have developed in a number of English local authorities. They are a teacher who has the understanding of AAC and the in depth knowledge of the curriculum to enable them to lead a team to support the student to:

- Have optimum access
- Be as independent as possible

The AAC coordinator needs to:

- Ensure that the right technology is employed
- Keep up to date with the ever changing technological picture

QUESTIONS?

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