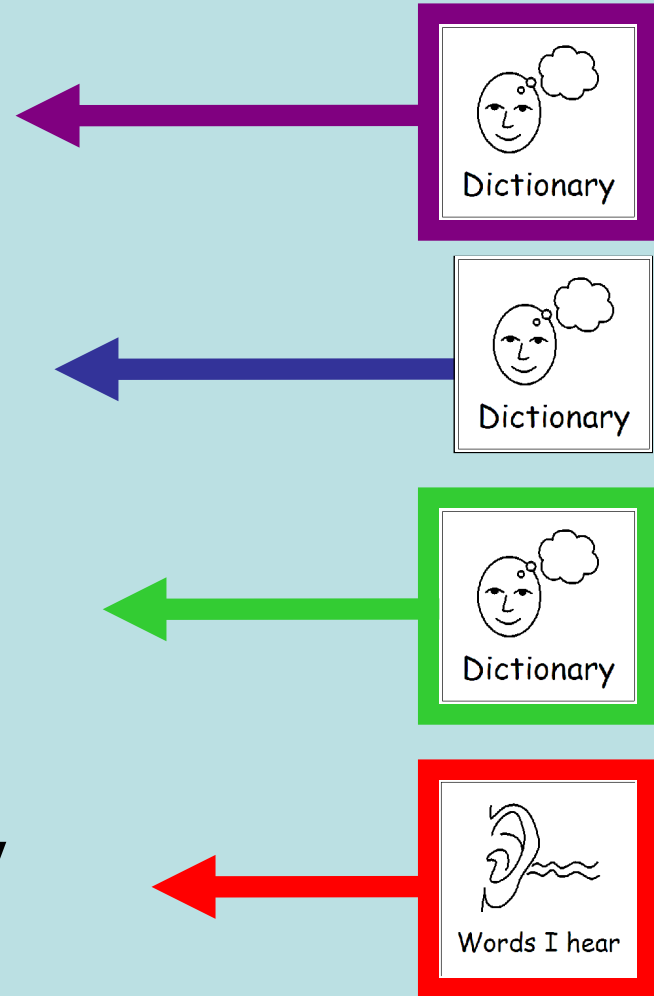


# Key to colours

- Pathway described
- Possible pathways
- Functional pathway
- Non functional pathway

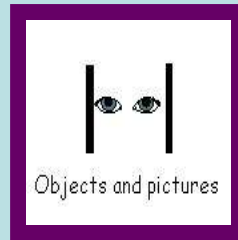


# Introduction

- The next slides show how children normally learn to communicate.
- Please read the text and look at the diagrams.
- The purple lines show which communication pathway is currently being described.
- The first stage begins soon after birth while the writing pathway may take several years to master.

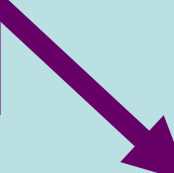
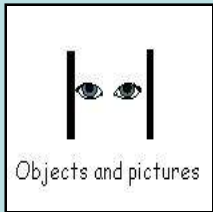
# Development of communication

- Children learn that certain things are interesting for them. E.g. Mummy/ Daddy or biscuit.
- They will look or reach towards things that they want.
- This is the most basic form of communication.
- This does not require understanding or use of speech.



# The next step

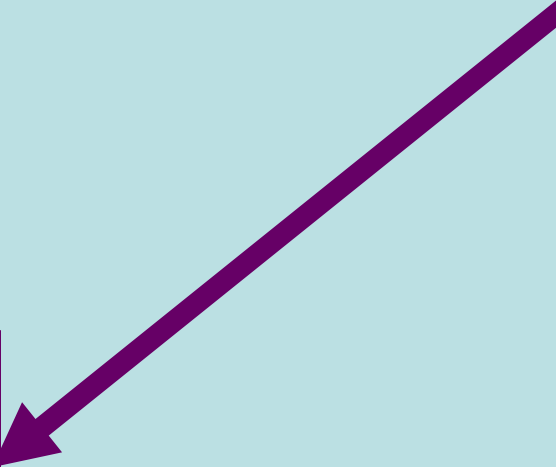
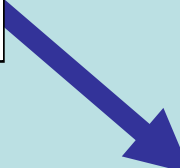
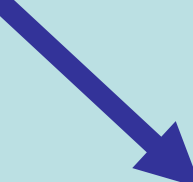
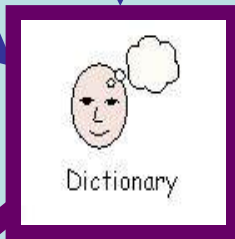
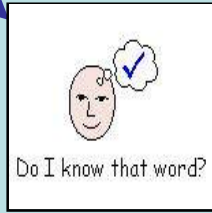
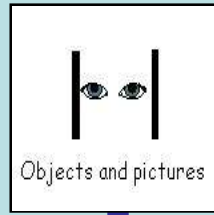
- Words are learnt by hearing them frequently.
- Words that are learnt first are those that are meaningful and heard on their own, e.g. “no” and “hot”
- Children begin to understand phrases in a situation. “Time to go out” is usually when we go to the door or get our coats.



# Talking

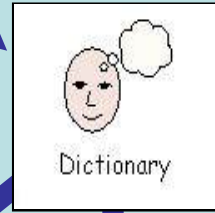
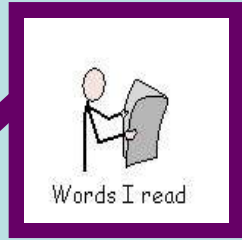
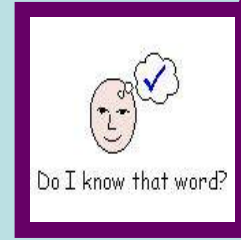
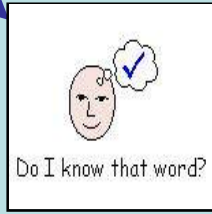
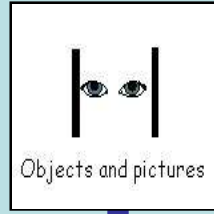
- Children babble – trying out the range of sounds that they can make.
- When adults hear babble sounds that are like words, they act on these e.g. “dada” “daddy! Here’s daddy!”
- This helps the child understand that by using that sound they get a response.
- When a child understands that the sounds that they make have meaning, they begin to use them intentionally.





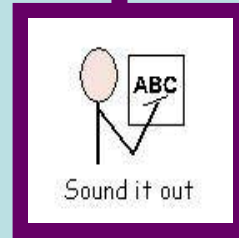
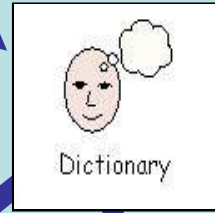
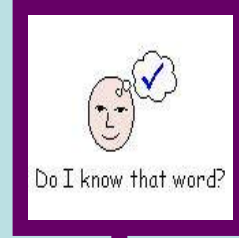
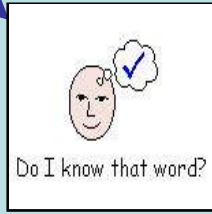
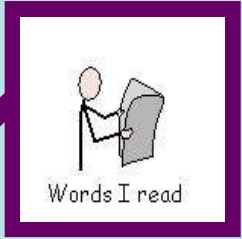
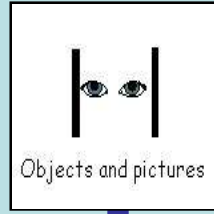
# Reading

- Letters and words are symbols that have meaning in only one language.
- The child does not initially understand that the letters and words are meaningful.
- Written words are learned through links with spoken words and pictures e.g. seeing the printed word as it is read to them.




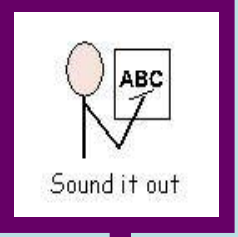
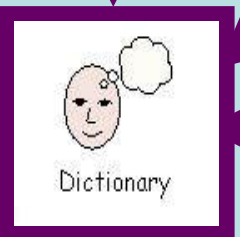
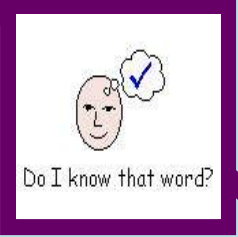
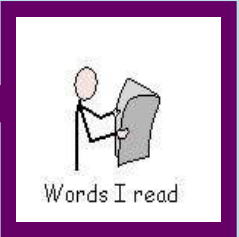
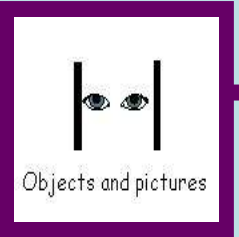
# Reading without meaning

- After some practice we are able to sound out words when we read: phonics.
- We don't always understand what the word means e.g. "right"
- We can still say it but we don't access our lexicon (internal dictionary).
- This is like reading a foreign language.



# Reading for meaning

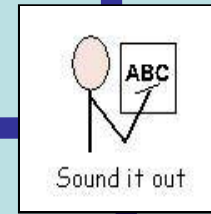
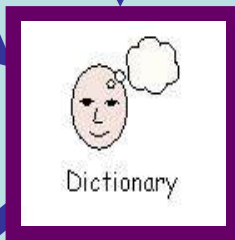
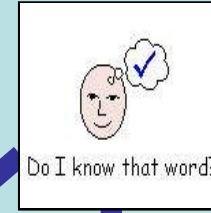
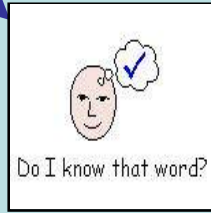
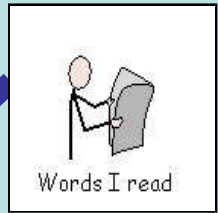
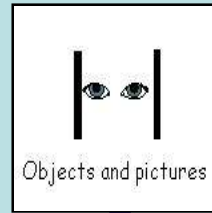
- We need to learn the meaning of each word that we read.
- Words are learned through links with pictures e.g. lion → 
- After repeated hearing of spoken words (with pictures) the child is able to link the written words to the meaning in their dictionary.



# Writing

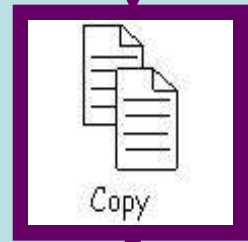
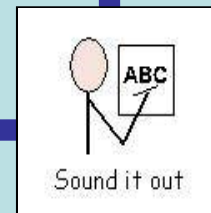
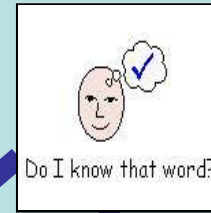
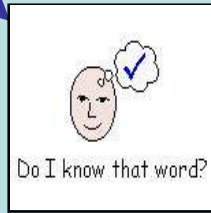
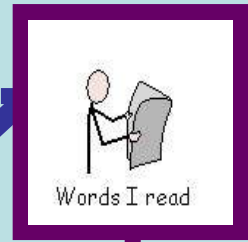
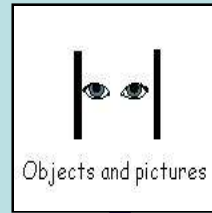
- As we learn to read we can then learn to write.
- This involves different skills; from pressing keys on a computer to hand writing.
- Writing is a useful form of expressing language.
- Not all children will be able to do this.





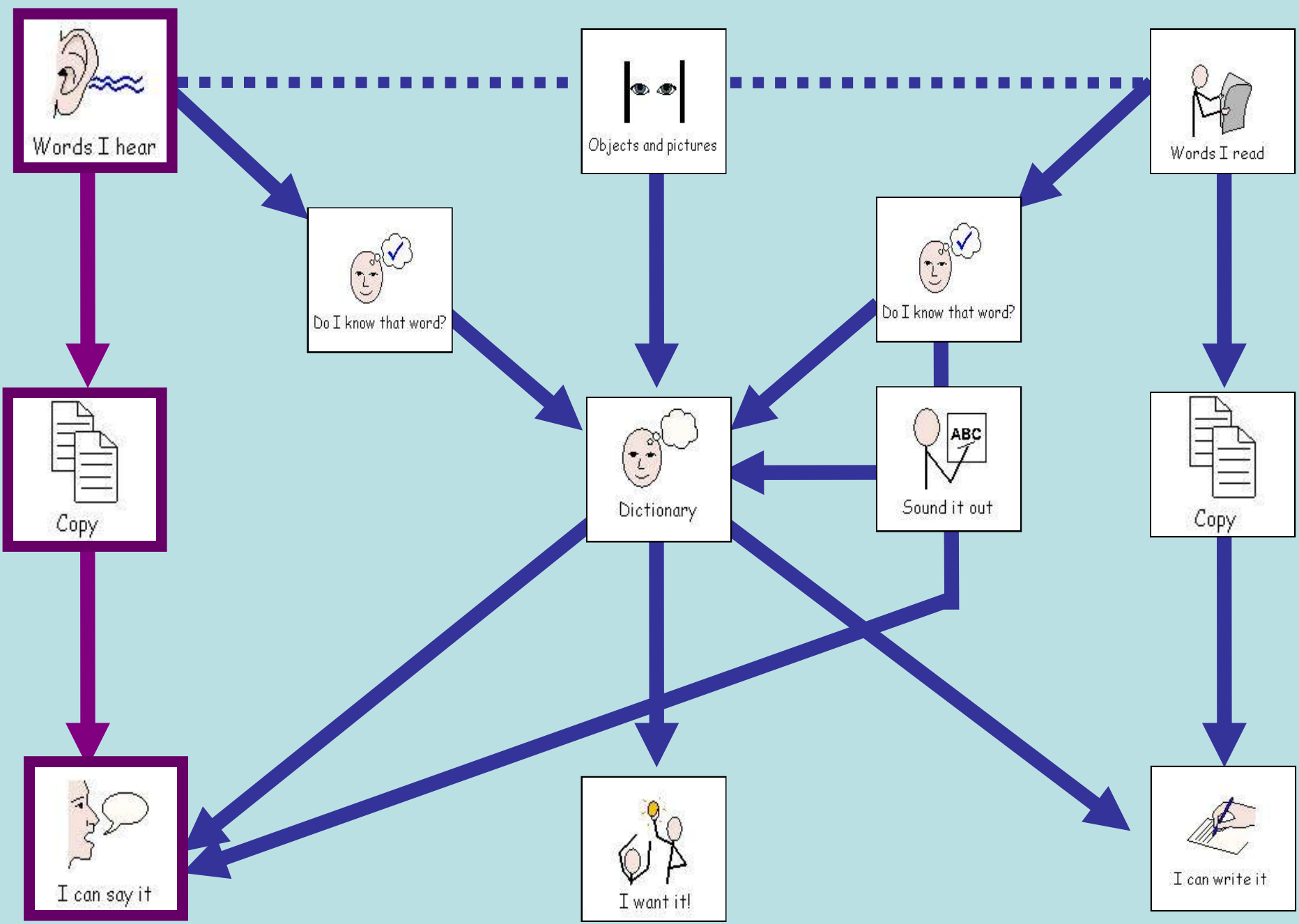
# Copying print

- We can also copy written words.
- This does not mean that we understand them.
- This is not functional as a means of communication but is a good way to practice.



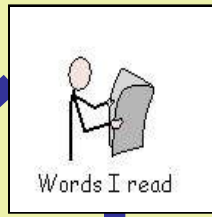
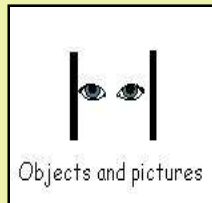
# Copying spoken words

- We are also able to copy spoken words.
- If we can figure out the different bits of the word we can say almost anything.
- Again this is not a functional means of communication but it is how we learn to say new words.

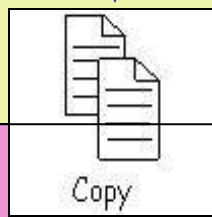
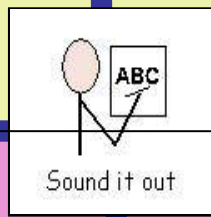
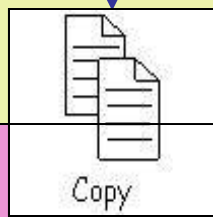
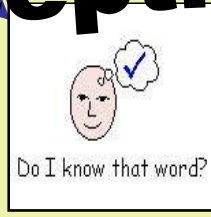


# Communication

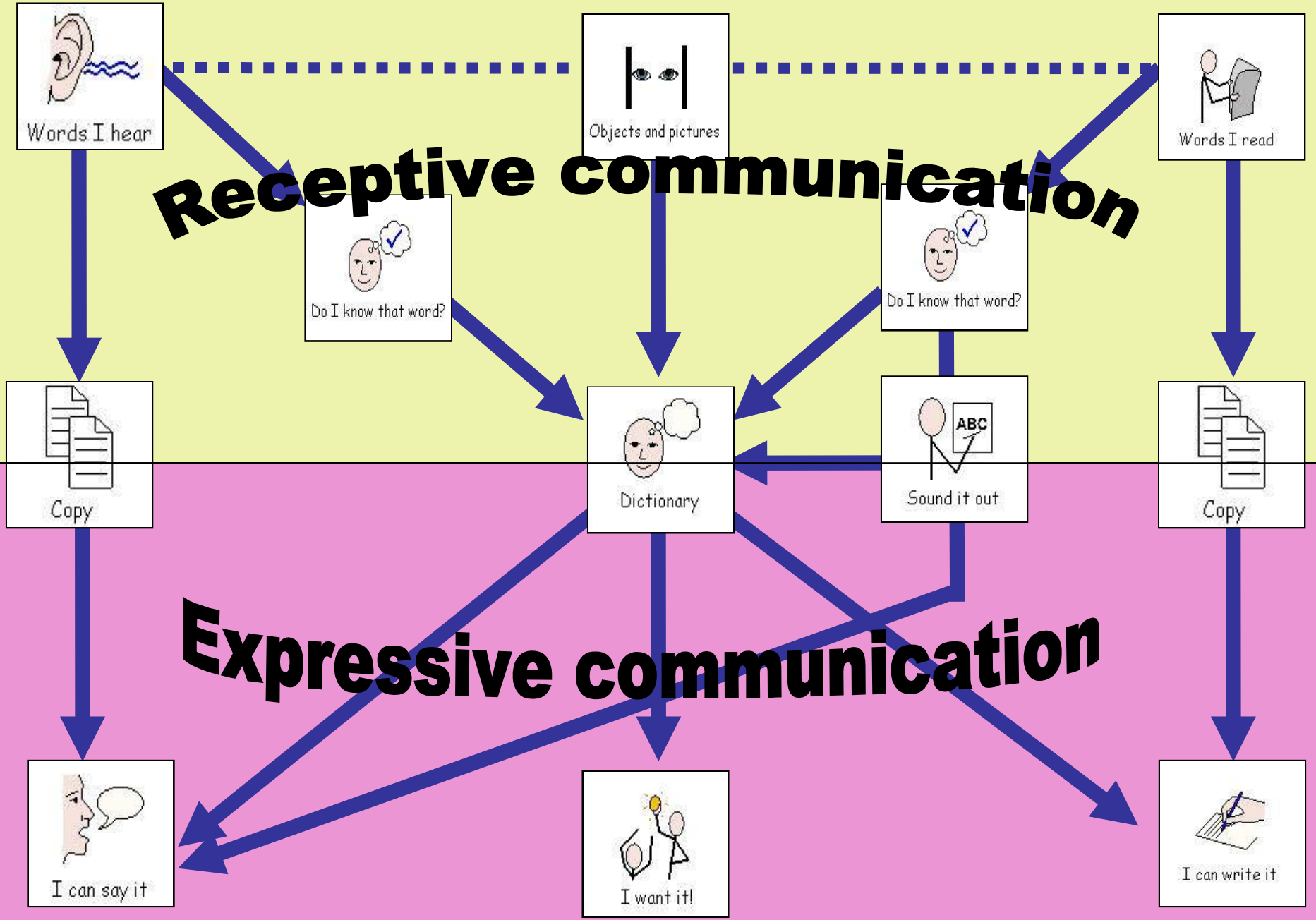
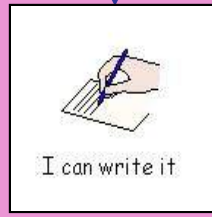
- The diagram now shows all the pathways that communication can use.
- The top **yellow** half of the diagram shows how information is understood (receptive communication)
- The bottom **pink** half shows how we use communication to say what we want (expressive communication)



# Receptive communication



# Expressive communication



# Communication disorders

- Children can have difficulties at any stage in this communication process.
- Some do not understand spoken language and are not able to talk.
- Some are able to understand but, due to other reasons, are not able to talk.
- We need to use strategies to support or bypass the difficulty and promote learning.

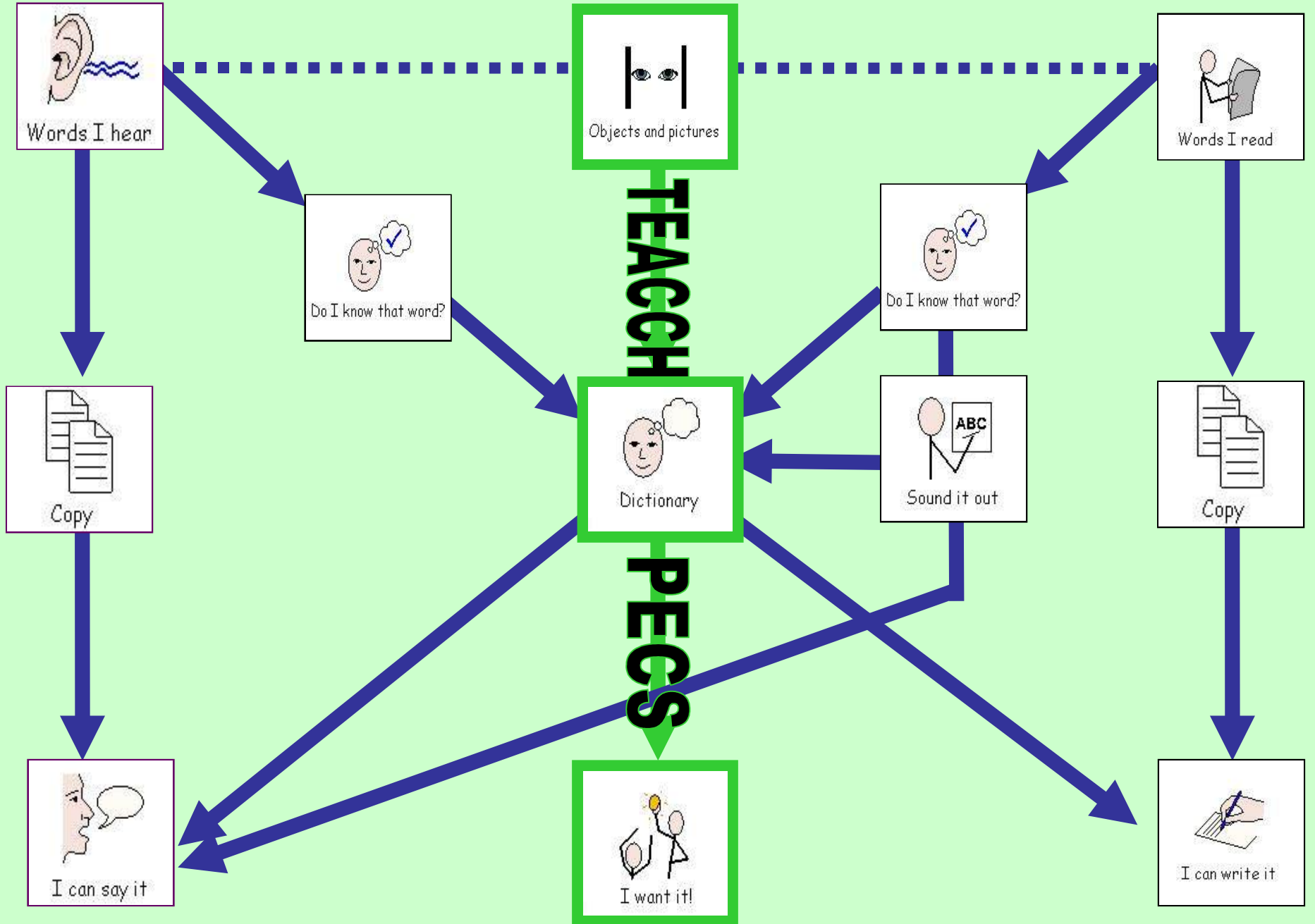


# Functional communication

- This is where one person can use a communication system that is understood by others.
- As you can see on the diagrams, the basic form of communication is visual.
- Most children can understand visual communication and so can most adults.
- Communication has to be at a level that is understood by the person with the disorder.

# Non-verbal communication

- Many children are able to take the adult to what they want **but**, if children stay at this “point and wait” stage, they may have tantrums if they don’t get what they want and they can’t tell you what is the matter.
- If they help themselves to what they want, they never learn to use functional communication.
- They cannot talk about things that they cannot see. E.g. feelings.



# PECS and TEACCH

- PECS – the Picture Exchange Communication System is the child's expressive communication – what the child want to say but handing over pictures rather than words.
- TEACCH – Treatment and Education of Autistic and other related Communication Handicapped Children uses pictures to tell the child what is happening or what is expected of them (like road signs).

# Visuals (photos and symbols)

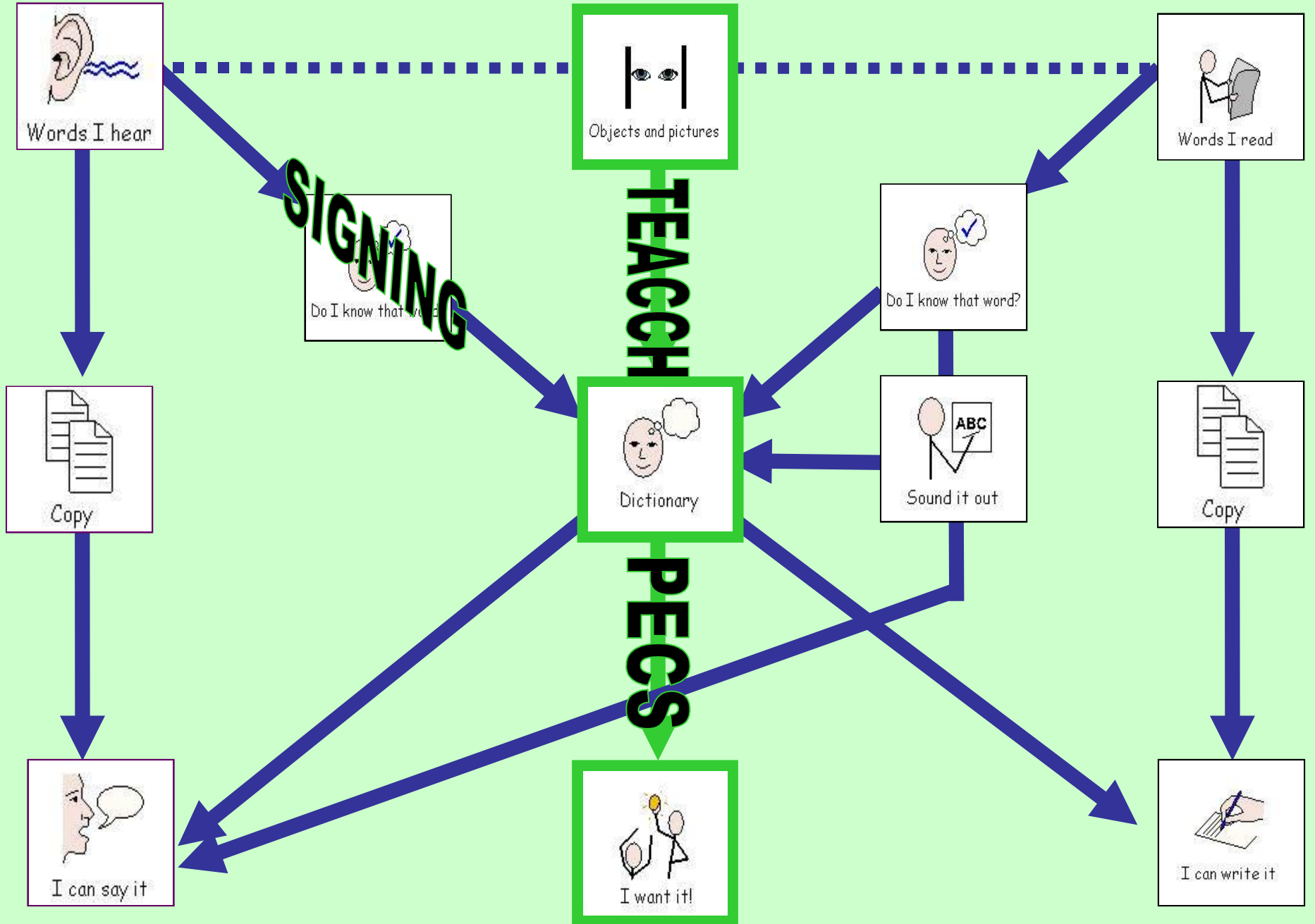
- Expressive: children can use PECS to ask for motivating things spontaneously. They begin to understand that the symbols are meaningful.
- Receptive: When children understand that symbols are meaningful we can help them understand what is happening and what we expect of them (TEACCH). This helps to keep the child calm and allows them to learn.

# Examples of children

- S does not understand spoken language.
- He does understand symbols well.
- He is able to make a pizza without adult help following a symbolled recipe (TEACCH).
- He is not able to speak but uses symbols to get what he needs, to join in with lessons and to say how he feels (PECS).
- He is learning to use a complex communication aid.

# G

- G does not understand spoken language and is not able to speak.
- He responds to a photograph of an open hand telling him to let go of hair and wheelchairs! (TEACCH).
- He uses photos to ask for his food and drink and for favourite activities (PECS).
- His behaviour has improved at home and school since this was implemented.



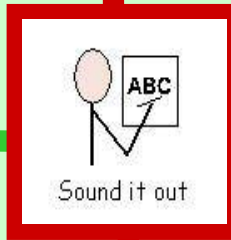
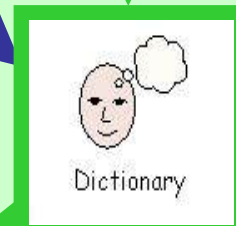
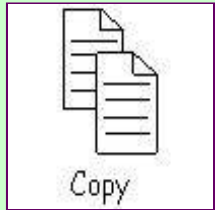
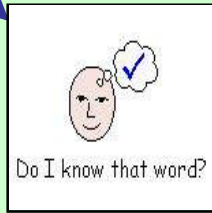
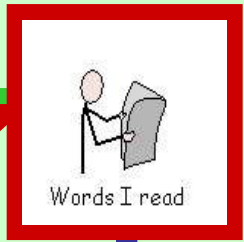
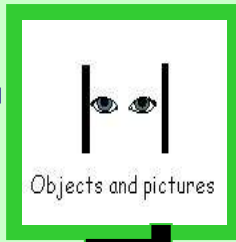


# P. Reading without meaning

- P can read typed text e.g. “who is working on the computer?” but he answers “Lego”: describing the program he is using.
- Given “who is working on the computer?” typed with symbols he is able to tell me who is working on the computer.
- P’s reading without symbols is not useful and he is not learning.

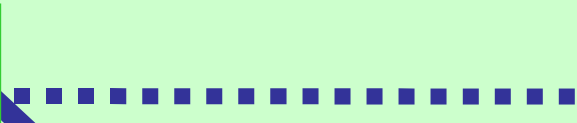
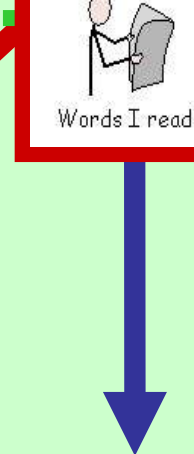
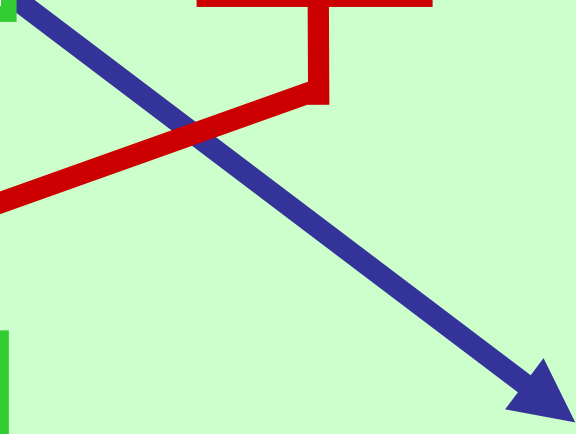
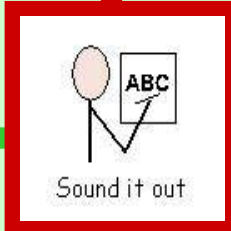
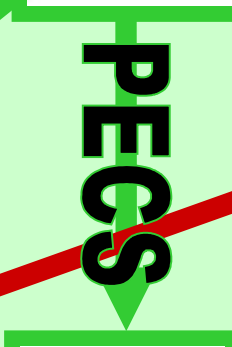
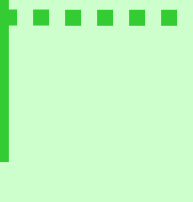
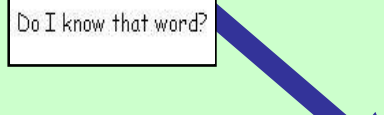
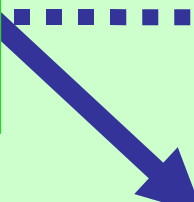
# P

- P's understanding and use of spoken language is very poor.
- However, he is able to make up long sentences using symbols to ask for things and to comment (PECS).
- His understanding of social stories with symbols is excellent and helps with his behaviour and social interaction.



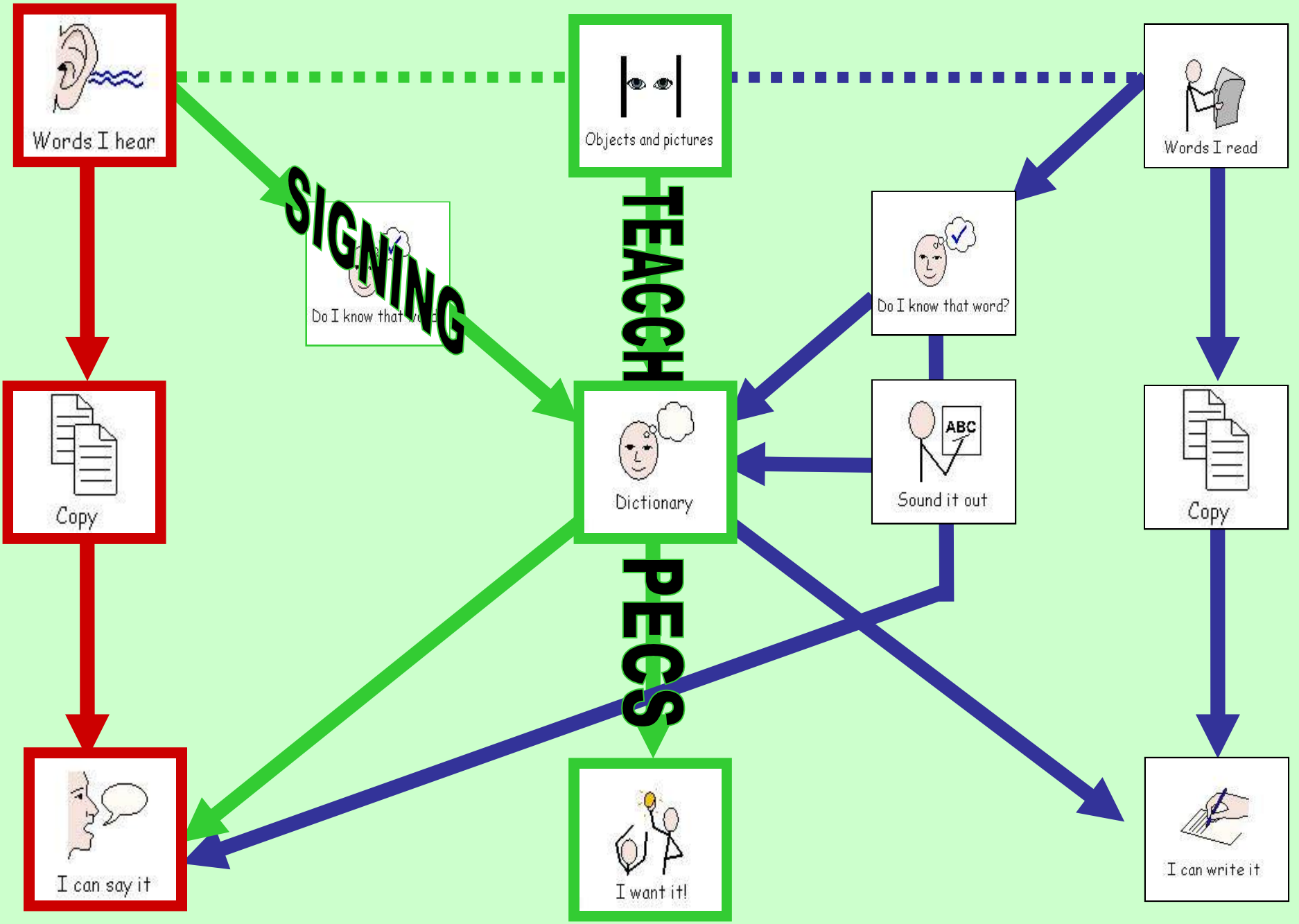
**TEACCH**

**PECS**



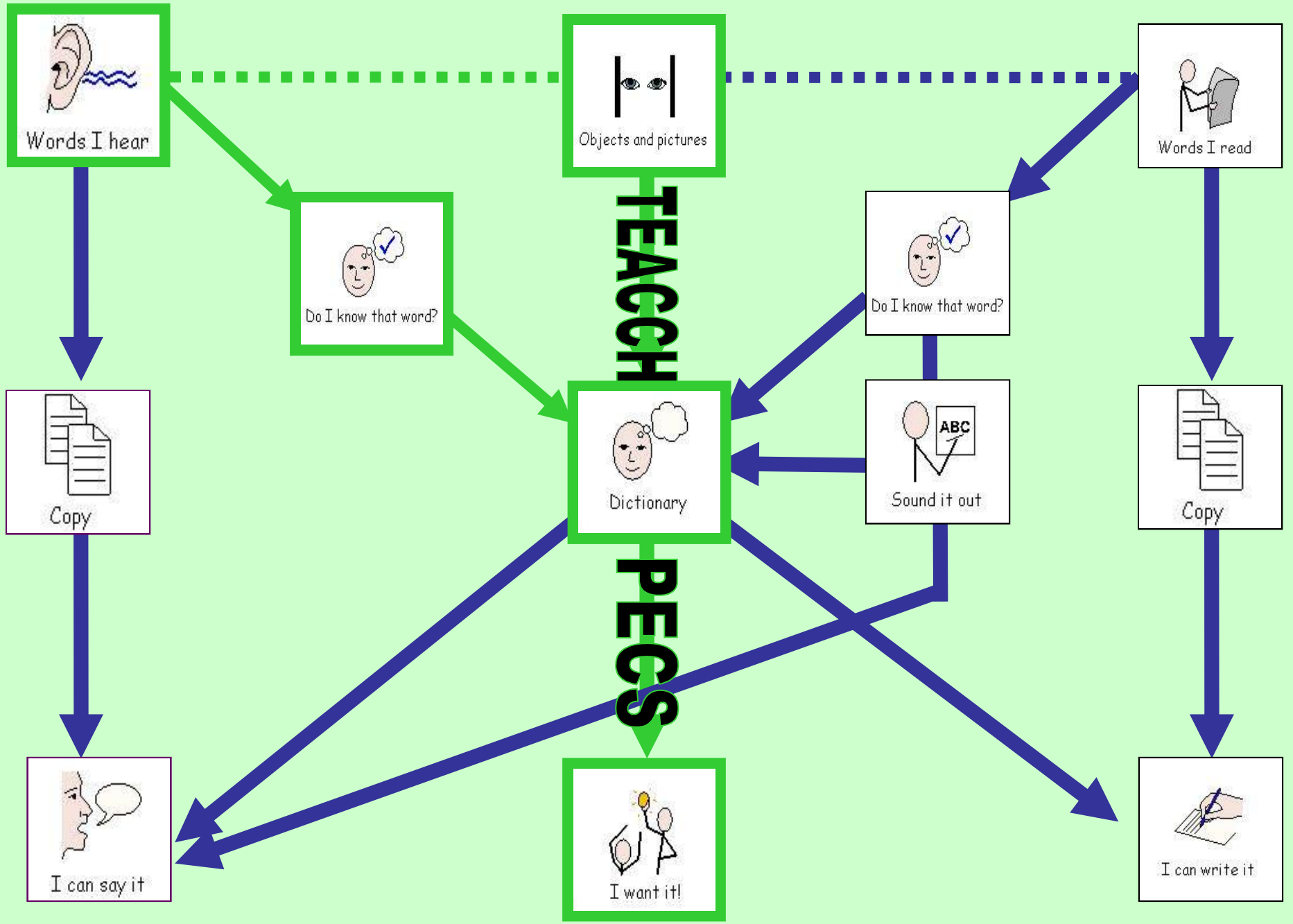
# Echolalia (repeating words)

- B can repeat any word that you say and is able to recite Thomas the Tank Engine.
- He does not understand much spoken language without symbols.
- He is able to use limited spoken language that is not learned phrases or echolalia.
- Echolalia is not functional communication.
- Visuals help him to be functional.



# T's communication

- T is able to understand quite complex language (and may learn to read and write on the computer in time).
- He is not able to speak at all.
- He uses symbols to communicate his needs (PECS) and also to understand what he is supposed to be doing (TEACCH).
- He will be able to do things independently as he gets older.



# Using reading and writing to support learning

- Able to understand simple spoken language.
- Able to use functional spoken language on his own terms
- Able to read well but not with understanding.
- Able to express himself through writing but may be distracted by it as he deletes some parts of words and then needs to continue typing
- Reads out loud if he wants to do what he reads but rejects things he doesn't want to do.



# What if I know what they want?

- The child can't talk about things that they can't show you so we use PECS:-
- We need to go through the stage of making the child ask for very motivating things using visuals so that they become aware that the visuals are meaningful.
- We need to do this often to help the child make sense. About 30 times each day.
- Without this they will not develop further and their behaviour will not improve.

# How to move on

- A child's brain is adaptable and links are made between visuals and words.
- Use PECS as often as possible and move up to sentence level as soon as the child is able.
- Develop PECS to the commenting level – then they can tell you where they hurt.
- Use symbols to support understanding and help with behaviour (TEACCH).

# Anxiety and behaviour

- If you don't understand what is expected of you or you can't express yourself your cognitive skills are limited and you become anxious and less able to understand speech.
- You may become passive or self involved and do self stimulatory activities that you find interesting.
- You are likely to express yourself through unacceptable behaviour.

# How visuals help behaviour

- The child knows what is expected of them.
- To know what is happening is calming and keeps anxiety levels down.
- To know that there is something good happening after something difficult helps motivation.
- To understand that if I do something I can have a reward is motivating.
- The child can learn to be independent.

# What's in it for me?

- Using visuals to support communication is hard work but if applied **early** enough the child will have the potential to become a functional part of their family and valuable to society.
- Like recipe books and diaries we don't need to use visuals forever.
- We can develop the full potential of the child.