Swindon Speech & Language Therapy Department

Developing Vocabulary & Concepts

INFORMATION AND IDEAS FOR TEACHERS

(Created by the team in 2007)
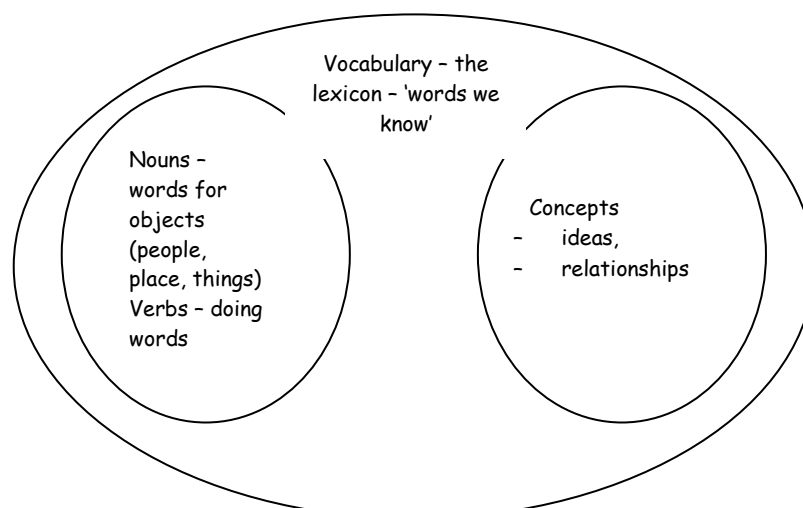
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Director of Children's Services

Contents

What we need to know about learning vocabulary

1. Children need to learn vocabulary – they may not just pick up new words without them being taught specifically.

2. In order to remember new vocabulary we need to understand the meaning of the word and hear and use the word regularly.

3. There is a developmental progression in the vocabulary children learn. Children need to build upon their vocabulary in hierarchical layers. Make sure the child knows the easier words first i.e. words relating to body parts – 'leg' before 'knee' before 'shin' before 'femur'. (Children who have 'gaps' in their vocabulary knowledge will often experience difficulties keeping up with new vocabulary).

4. When children learn words, they need to combine the semantic, phonological, grammatical and articulatory information about that word, i.e.:
   - The meaning of the word
   - The sound patterns which make up the word
   - The way the word is used in a sentence
   - The way the word is spoken, and in addition…
   - The way the word is written

5. Children may be able to read and/or write words, however this does not necessarily mean that they understand them or can use them appropriately.

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6. "Key words" = the words you need to access the curriculum.

7. Children are taught vocabulary differently at different ages, e.g. younger children often learn words through multi-sensory activities and exploration; older children will learn new vocabulary increasingly through verbal activities, building on their current vocabulary knowledge.

8. Children learn vocabulary differently because of different learning styles, e.g. auditory, visual, kinaesthetic, experimental. All children benefit from multi-sensory approaches to learning vocabulary.

9. Younger children learn vocabulary by relating a word to a real life size object first, followed by miniature objects, pictures and the written word.

10. We are continually learning vocabulary.

11. There are different kinds of vocabulary, such as:
    a. Words for objects (often topic specific) i.e. body parts:- leg, arm, head etc.
    - Words for actions – verbs (these can be topic specific too) i.e. senses:- touching, hearing, seeing.
    - Words for concepts, i.e. size:- big, little, tall, short; time:- before, after, first, last

Vocabulary – the lexicon – 'words we know'

Nouns – words for objects (people, place, things)
Verbs – doing words

Concepts
– ideas,
– relationships

12. Words can have more than one meaning (homonyms e.g. light) or several different words can have the same meaning (synonyms e.g. fast, quick). Meaning can depend on the context.

VOCABULARY AND THINKING SKILLS IN THE CONTEXT OF THE CURRICULUM

As the children's vocabulary knowledge develops, they need to use it to show the relationships between objects, events, people etc. This requires the use of vocabulary and verbal reasoning skills, such as describing, explaining links, comparing, defining, predicting, justifying etc. This verbal reasoning vocabulary also needs clearly defining.

Although there may not be a developmental order in the development of thinking skills, it may be important (for purposes of teaching) to classify thinking skills in terms of a perceived level of difficulty.

Lower level thinking skills involve:
- Knowledge – knowing the facts
- Comprehension – understanding the facts
- Application – applying the facts

Higher levels of thinking involve:
- Analysis – taking the facts apart
- Synthesis – creating something new from the facts
- Evaluation – evaluating the knowledge

It is important to develop the learning skills that lead to the acquisition and understanding of 'knowledge' before expecting a child to use or evaluate that knowledge effectively.

THINKING SKILLS REQUIRING VOCABULARY SKILLS

THINKING SKILL	Level 1	Level 2	Level 3
Labelling	*		
Describing	*		
Comparing	*		
Classifying	*		
Analysing			*
Synthesising			*
Searching systematically			*
Scanning		*	
Selecting relevant information		*	
Recognising implicit clues			*
Reading explicit instructions		*	
Brainstorming		*	
Hypothesising			*
Anticipating			*
Predicting		*	
Planning		*	
Mentally visualising			*
Eliminating		*	
Counting	*		
Checking		*	
Summarising			*
Revising			*
Evaluating			*
Communicating clearly		*	
Explaining		*	
Justifying			*

LEVEL 1	LEVEL 2	LEVEL 3
Labelling	Brainstorming	Evaluating
Describing	Predicting	Analysing
Comparing & Contrasting	Explaining	Hypothesising
Classifying	Planning	Justifying

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Level 1 Vocabulary Skills (Important in developing higher level Verbal Reasoning Skills)

- Categorising
- Describing
- Comparing
- Explaining Semantic Links

Items can be categorised, described etc. using 6 reasons (Lewis, 2006):

1. **Function** – what you do with them.
2. **Location** – where you find them and what else is found there.
3. **Category** – a name for the group of items they belong to.
4. **Parts** – what parts they're made up from
5. **Attributes** – what they're made of and their shape, size, colour and texture.
6. **Personal links and experiences** e.g. my Granddad has one.

Although some variation will occur in accordance to the actual item being categorised or described etc., there is an order of development (and importance) in which children will use these reasons.

If children are under 7:
Level 1= Function
Level 2 = Location
Level 3 = Category

If children are over 7:
Level 1 = Parts
Level 2 = Function
Level 3 = Location
Level 4 = Category

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Further activities that will improve vocabulary knowledge are: grouping or describing according to attributes; grouping or describing according to initial sound; grouping or describing according to a smaller category the item belongs to, e.g. broad category = animals, smaller category = pets. Children tend not to give a personal link, but children with ASD may be preoccupied with this area.

Children with speech and language difficulties often use attributes i.e. what they can visually see as their first grouping/describing reason. Such features aren't as key to understanding the nature of an item as the other reasons, therefore, when teaching vocabulary skills the levels of development (importance) should be highlighted and used whenever possible.

For more activities to support the development of these skills please refer to the section on word finding difficulties.

Strategies for Assessing, Monitoring & Teaching Vocabulary
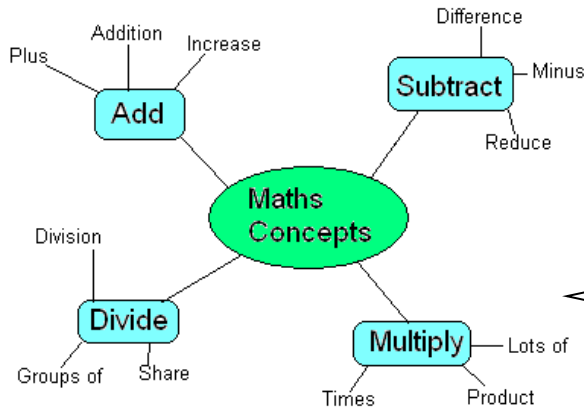
1.   Check at start of topic child's vocabulary knowledge to establish a baseline and reassess after work on topic, e.g. concept map, which could involve asking specific questions to check understanding.
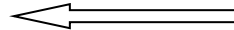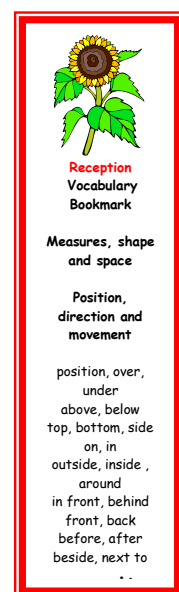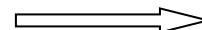
2. Use a grid of words at the start of a topic and discuss them to find a baseline of what's understood. Use it again at the end of a topic.

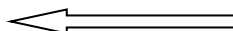| New Vocabulary	Start date	End date

3. Pre-teaching topic vocabulary – refer to hierarchical lists.

4. Create a bookmark which has the topic vocabulary on it. Use the bookmark to highlight words that are understood. Use a traffic light system, e.g. red = not know, yellow = unsure, green = known. This could be laminated so that changes could be recorded over time.

Reception Vocabulary Bookmark

Measures, shape and space

Position, direction and movement

position, over, under above, below top, bottom, side on, in outside, inside , around in front, behind front, back before, after beside, next to . .

5. Use a word list to tick words learnt, used and understood.

6. Use little word books to add words to as they are learnt and understood – similar to a glossary.

Position, Direction & Movement Concepts
before ☑
after ☑
beside ☐
next to ☐
opposite ☐
apart ☐
between ☐

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7. Use a notebook to add words as they are learnt in categories e.g. a page per. topic.

8. Words can be given as spellings if they're suitable and then used in sentences to show meaning is understood.

9. Classroom displays – not only on walls but hung from ceilings, on desks, as mats, bookmarks etc.
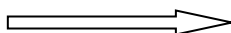
10. Start each new topic with discussion on vocabulary, picking difficult words apart.
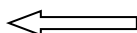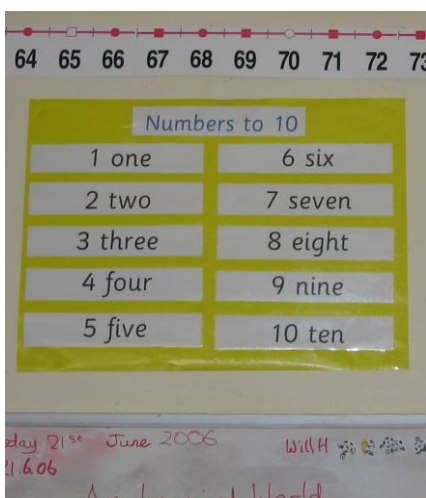
11. Use reinforcing activities/games, e.g.:
    *   jigsaw puzzles with words/pictures
    *   cloze procedures
    *   mind-mapping
    *   picture dictionaries
    *   word games
        e.g. 'I'm thinking of a word…'
            20 questions
    *   individual word packs
    *   individual topic words by the whiteboard

12. Provide phonological and semantic information for new words

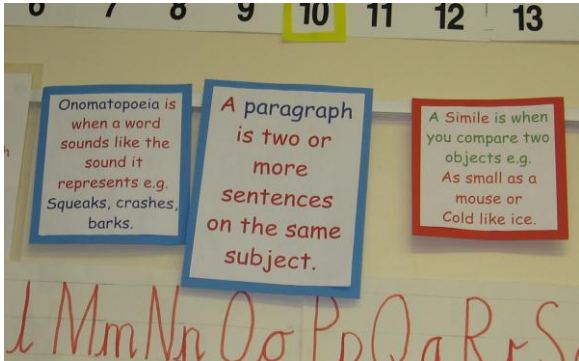| Think of sound	Think of meaning
It starts with…	What category does it belong to…
It rhymes with…	It's used for…
It has… syllables	It's found….

13. Use practical activities to experience new vocabulary.

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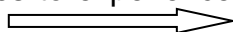
14. Add new words to the class 'Word Bank' writing word with two semantic and one phonological feature (word wizard).

15. If you are supporting a child in class:
   - Encourage the child to identify unknown words and request clarification.
   - Give child thinking time
   - Provide simple definitions – too much information can confuse the child
   - Re-visit new words as often as possible
   - Use new words in context

16. Link new words to child's vocabulary and experience.
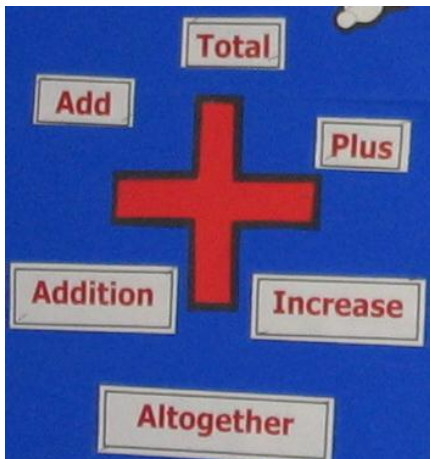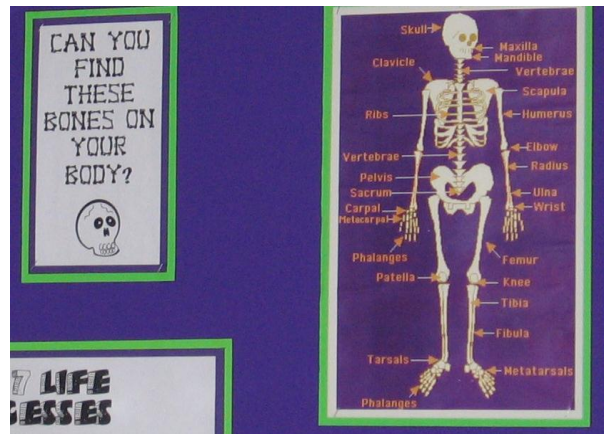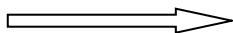
17. Use visual objects, pictures, gestures and/or symbols to support learning of new words.
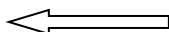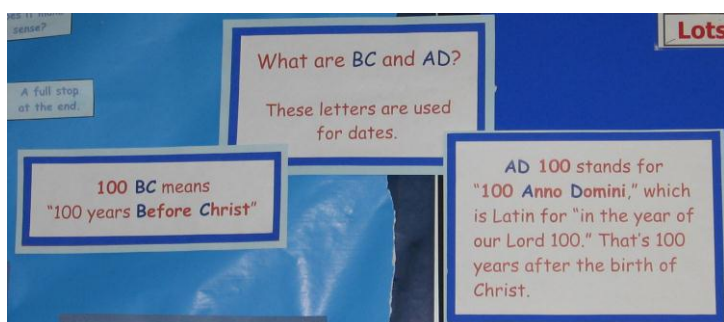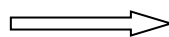

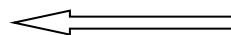18. Learn new words as part of a topic/category e.g. topic scrapbooks.

19. Discuss similarities and differences between words e.g. odd one out, sorting by feature.

20. Child needs to say new word out loud and write it down if appropriate (supporting correct phonological and graphic representations).

21. Over-learning at the start of a lesson using whiteboards helps to consolidate new vocabulary. You can allow children to draw a picture to show understanding.

cone
cylinder,
prism
cuboid
sphere

What are BC and AD?

These letters are used for dates.

100 BC means "100 years Before Christ"

AD 100 stands for "100 Anno Domini," which is Latin for "in the year of our Lord 100." That's 100 years after the birth of Christ.

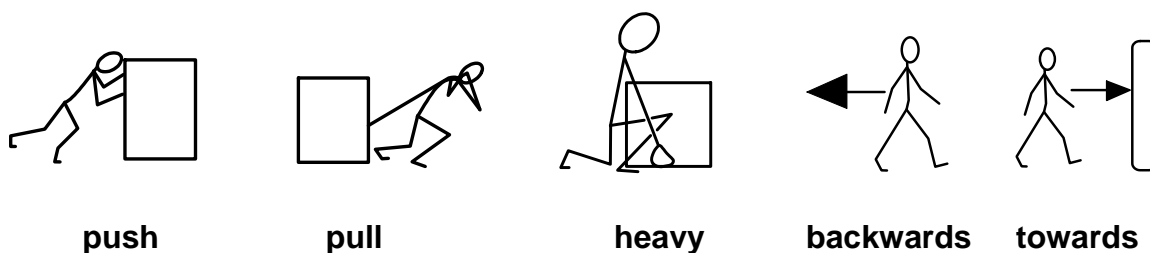22. Work on word definitions including detailed description of word.

23. Encourage parents to help their children learn new words by sending home word lists, ideas and pictures.

24. Support new words with pictorial representations where possible (see example words and icons in this pack)

push   **pull**   **heavy**   **backwards   towards**

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Understanding Word-Finding Difficulties

The following information is useful in understanding both word-finding difficulties and also, how we learn and store words generally.

What is word finding difficulty?

A word-finding difficulty occurs when a target word is present in a child's vocabulary but the child is unable to produce it easily and accurately on demand.

It is not a specific 'disorder' in itself but a sign that something is going wrong with the underlying mechanisms responsible for learning and using words. The process of word learning is dependent upon intact input, processing and output skills (see below).

What are the underlying mechanisms responsible for learning and using words?

- Intact hearing – to hear the new word correctly
- Auditory discrimination –to discriminate the new word from other words.
- Segmentation skills – to learn the phonological 'make-up of the word, i.e. syllable structure and the sounds (phonemes) that make up the word.
- Rehearsal – to hold the phonological information in the memory whilst it is processed.
- Memory – of the new sound pattern
- The ability to extract and store information about the word from the context. i.e. how the word is used in context.
- Semantic skills – to store the meaning of the word in relation to other words and knowledge

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- Motor skills – in order to articulate the word.
- Practise using the word in context

How are words stored?

Key words:
Lexical item = a word
Lexicon = the internal store of words
Lexical representation = the information stored about a word

Information about words is stored in the form of **lexical representations**. The information is stored in a variety of ways:

- **Semantic** representation – what the word means
- **Phonological** representation – what the word sounds like
- **Motor program** – instructions of how to articulate the word
- **Grammatical** representations – how to use the word in a sentence
- **Orthographical** representation – how to recognise and produce the word in its written form

The lexicon is a highly complex database with an intricate cross-referencing system which links words together. Entries and connections are constantly being reorganised and refined as new words are added.

Information about words (lexical information) has to be stored accurately and organised efficiently if children are to learn and access words as quickly as they do.

Research into the nature of word-finding difficulties suggests that problems in the initial storage and/or organisation of the lexicon can affect the ease at which words are accessed.

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How do word-finding difficulties present?

A word-finding difficulty can present in a variety of ways:
- Semantic error – this refers to when the selected word is linked in meaning to the target word i.e. 'chair' for 'table'.
- Phonological error – this refers to when the selected word/non-word has a phonological similarity to the target word i.e. 'sandal' for 'saddle'.
- Mixed semantic/phonological error – a combination of the above i.e. flamingo – 'eagle…no…igloo'
- Circumlocution – this is when a description of the meaning is given i.e. anchor – 'it goes in the sea, with boats…a stopper'.

TASK - Aim – to describe and categorise word-finding behaviours.

Look at the following examples of naming errors that occurred in a picture-naming task. Mark them with an 'S' 'P' 'M' or 'C' according to whether they constitute a:
- semantic error
- phonological error
- mixed semantic/phonological error
- circumlocution

Target Word	Child's Response
Ostrich	'octopus…….no…….I know it………long neck…… big legs…eagle?'
Screwdriver	'tool'
Acorn	'nut'
Escalator	'a lift……..yes a sort of lift…….it takes you up or down…..shopping'
Flamingo	'eagle…….igloo'
Saddle	'handle……horse…..a…handle….don't know
Moustache	'biastash….bustach….bea…beard… stas…bustas….bustas
Octopus	'ertapus…..ostapus'
Binoculars	'nokanuz….nokamiluz'
Hammock	'a net where you sleep on'

Improving Word-finding Difficulties

A useful analogy in explaining word-finding difficulties (which can also be used to explain to children) is the idea of a library system. Books in a library are categorised and stored in an organised and labelled system so that they are easy to find. The lexicon is stored in much the same way.

If a library has no 'filing' system and the books are disorganised then it is more difficult to find the book you need. Similarly if the lexicon is poorly organised, words will be more difficult to find.

The activities described below are divided into three main areas:

- **Categorisation tasks** – aimed at improving the organisation of the lexicon.
- **Descriptive language tasks** – aimed at increasing the semantic information stored about words and strengthening the links between words.
- **Phonological tasks** – aimed at strengthening the phonological representation of words. Depending on the child's level of literacy development, activities should be combined with orthographic representations (written words).

A programme which combines these areas, is more likely to help in the development of more accurate word storage and word retrieval skills. The tasks are also suitable for children with weak vocabulary knowledge.

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CATEGORISATION TASKS

Assessing categorisation skills

A useful way of assessing categorisation skills is to present the child with a variety of mixed category pictures (Resources – colour cards category pictures, Jane Mitchell C-cards Manual).

Lay the pictures out in front of the child and ask him/her to think about which pictures go together. If the child is unable to make links between the pictures, prompting can be given i.e. 'can you find me all the things we eat', 'which of these are made of wood'. For more able children you may need to present a single category, which can then be divided into sub-categories i.e. animals.

If the child makes an attempt to categorise the pictures their 'connections' can be analysed. Look for links based on appropriate understanding of the word meanings and linking attributes. If the child makes unusual links between pictures, this may suggest an underlying difficulty in their semantic representations i.e. what they understand about the meaning of the words).

Building categorisation skills

Children learn new words more effectively if they can make links to words that they already know. In order for the links to be made between words, an organised storage system is required.

Words can be categorised according to a variety of features:
➢ **Attributes** – linked to the senses:
   • visual features such as colour, shape, size and pattern

- tactile features such as soft, hard, smooth, rough, wet, dry
- smell – fruity, musty, fresh
- taste – sweet, sour, spicy

➢ **Function** – what the object is used for, or what it does
➢ **Location** – where the object is usually found or used
➢ **Material** – what the object is made of
➢ **Phonological** – what sound the words begin with, the number of syllables etc.

ACTIVITIES

Basic Category Sorting

➢ Select 5 basic categories such as animals, clothes, food, transport, furniture. See if the child can sort the pictures without prompting. If he/she is unable to do this, present him/her with cue cards to represent the categories and talk about some of the category features i.e. food – things we eat, transport – things we use to get from one place to another.
➢ As the child becomes more proficient at sorting basic categories, introduce a more narrow range, together with the sub-category name i.e. animals – zoo, bird, farm, insect, water; food – fruit, vegetables, meat etc..
➢ Select alternative features such as sorting by function, location, materials, initial sound, syllables etc.

Examples:
Broad category – animals/food/transport/body parts
Narrow category – pets/zoo/farm; fruit/veg/puddings
Function – for eating/for playing with/for making music
Location – inschool/at the park/at the seaside/bathroom/bedroom
Material – wooden/metal/plastic
Phonological – intial sound/number of syllables/rhyme

➢ **Odd one out** – present the child with 4 pictures, 3 of which belong to the same category and ask the child to identify the odd one out. The activity will need to be designed to 'test' the child's understanding of the categories you have been working on. The activity can be graded according to the level of the child you are working with, using pictures or written words. E.g.

dog cat apple horse – **broad category**
onion carrot potato orange – **narrow category**
pencil felt-tip scisoors pen – **function**
sandcastle shell boat table – **location**
jumper socks table teddy – **material**
pen dog drum drink – **initial sound**

➢ **Naming within a category** – give the child a category or sub-category name and ask him/her to list as many words in that category that they can think of.
➢ **Category games** – such as category pairs, category lotto, happy families.

DESCRIPTIVE LANGUAGE SKILLS

A useful assessment of a child's descriptive language is to use the game 'what am I?' and record the child's responses (See chart overleaf).

Choose a selection of pictures and take turns giving clues so that the other person can guess what the picture is. Demonstrate this for the child, telling them that the aim is to tell the other person as many things about the object as they can. Record the child's responses and then analyse them according to the descriptive features used. This will provide you with information that can help you select descriptive features to work on. For instance, a younger child may only include visual features in their description, so you may then decide to target 'function' and 'location'.

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ASSESSING DESCRIPTIVE LANGUAGE

1.	2.

3.	4.

5.	6.

7.	8.

9.	10.

Descriptions	1	2	3	4	5	6	7	8	9	10
Visual features										
Function										
Location										
Materials										
Category										
Parts										
Initial Sound										

The aim of working on descriptive language skills is to develop the **intricate web of links** between words by providing the child with a variety of descriptive features. This can also help the child with self-cueing strategies if they can describe the word they are trying to think of.

Use the Senses

- What can you see?
- What does it feel like?
- What does it smell like?
- What does it taste like?
- What does it sound like?

(not all these features will apply to all objects)

Begin with basic contrastive words:
- Colours
- Shapes
- Size
- Texture
- Tastes
- Smells

Gradually introduce the descriptive features outlined previously.
- Function – what do we do with it?
- Location – where would we find it?
- Material – what is it made of?
- Phonological – what sound does it begin with?
- Category name – what group of things does it belong to.

See enclosed cue cards
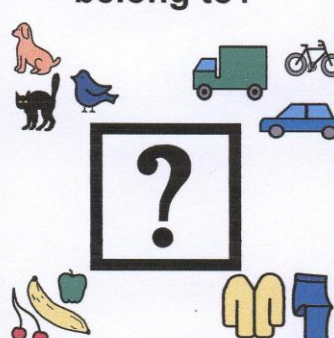
ACTIVITIES

- **What am I?** Describing a picture so another person can guess
- **20 questions** – asking questions in order to guess the picture
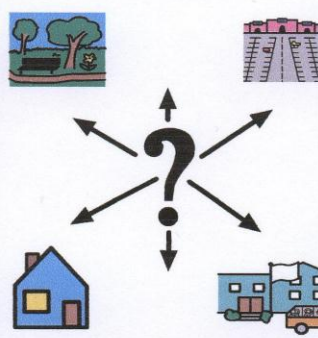
- **Points game** – the child receives 'points' according to the number of descriptive features used when describing an object picture. Good for groups.
  Suggested points values:
  1 point for visual features
  2 points for function, location, materials
  3 points for category name, sound structure features or parts.
- Use **mind-maps** can to illustrate all the things a child knows about a word or all the things that belong to a particular category. (see octagon template overleaf)
- Once the child has developed an understanding of the attributes of objects he/she can be asked to **compare,** ask the child to think of the similarities and differences between 2 objects which are closely linked i.e. horse and zebra, car and bus etc.

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Category Cue Cards
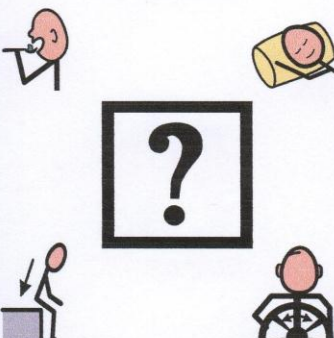
What category/ group does it belong to?	**Where would you find it?**	**What do you do with it?**
What sound does it begin with? f b a g	**What is it made of?**	**What does it look like?**
What does it feel like?	**How many syllables (claps) has it got?** el e phant	**What parts does it have?** saddle handle bars wheel pedal
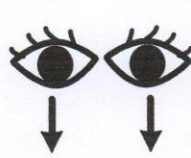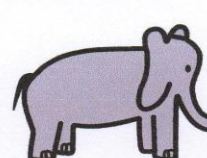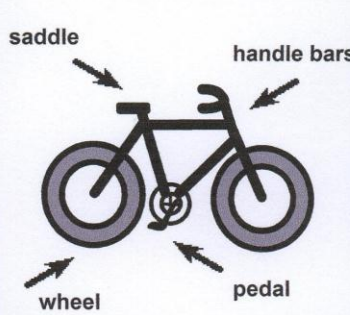
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Place Picture Below

What does it look like?
Colour? Shape? Size?

What do you do with it?
Eat it? Write with it? Play with it?

Where would you find it?
House? Garden? School?
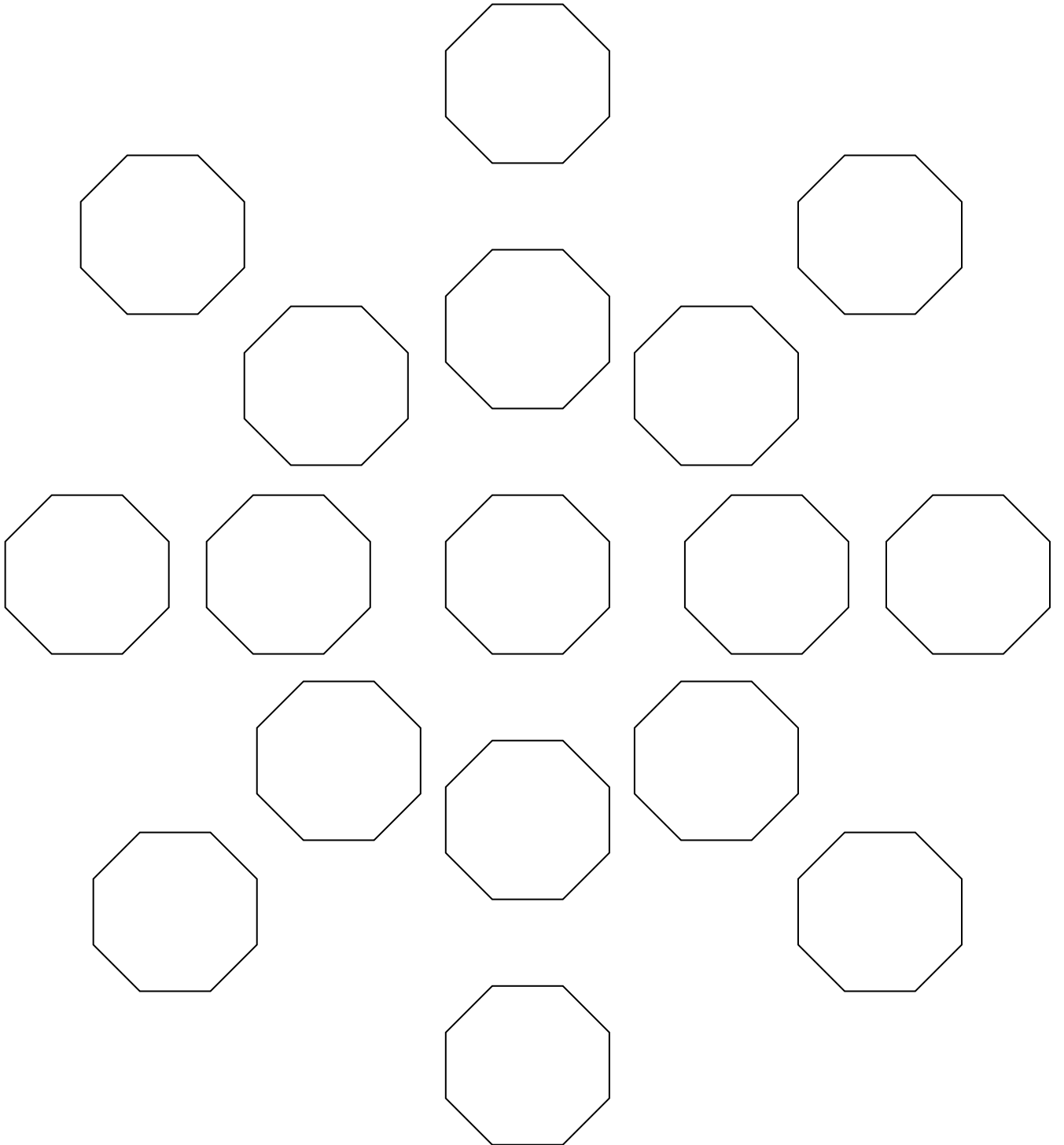
What is it made of?
Wood? Metal? School?

What parts does it have?
i.e. a bike has wheels, pedals and handle bars

What sound does it begin with?

What category (group of things) does it belong to?
i.e. animals, food, metal things, tools

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Concept Mapping Template

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PHONOLOGICAL TASKS

You can assess a child's awareness of the sound structure of words by asking him/her to sort pictures according to initial sound, rhyming words or number of syllables in a word.
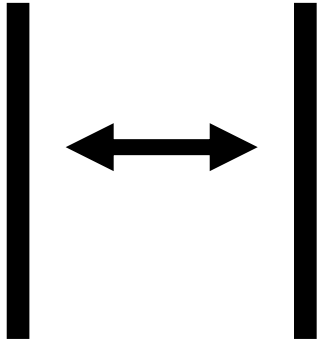
ACTIVITIES

Rhyming Words and Initial sounds
- Place a selection of objects in a feely bag. Ask each child to take out an object and say a word that rhymes with it/begins with the same sound. (To reinforce links - you may also want to include other descriptive features such as those already mentioned i.e. what do you do with it?)
- Stick object pictures onto card and number them 1-12, place on the floor. Throw two dice and ask the child to stand on the picture with that number and think of a word that rhymes with the picture/begins with the same sound.
- Board Games – select any board game and a selection of object picture cards. Before a child has a turn, he/she must pick up a card and say what sound it begins with and another word which has the same sound. (These games can be used to reinforce any of the descriptive features. Use the description cue cards at the same time to vary the task i.e. child turns over picture and cue card).
- Throw a ball around the circle. Throw it to the first child and say a word. The child then says a word which rhymes/begins with same sound and then passes it to another person. Continue until ideas run out and then change the target word.
- Sort pictures according to initial sounds.
- When teaching new words, help the child to make links to similar sounding words.

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Segmentation Tasks

- Syllable clapping – select a variety of object pictures with different numbers of syllables. Identify the syllables by clapping, asking the child to clap with you. Take turns in identifying the number of syllables in a word.
- Ask the child to sort a range of pictures into groups according to the number of syllables.   The child can say the word out loud, clap or do the task silently depending on level of ability.
- Syllable Lotto – Make up lotto boards using 6-8 pictures of words with one, two, three, four, or five syllables. Have a pack of pictures with a variety of syllables – read out a word and if a child has a picture with the same number of syllables, they can cover it up.

- Use the cue cards overleaf to design you own game to reinforce the links.

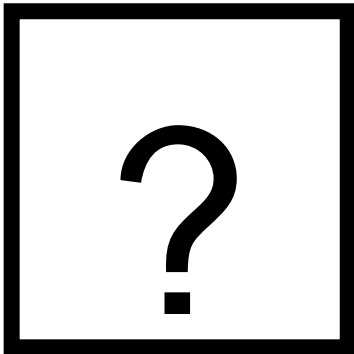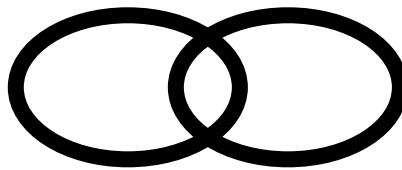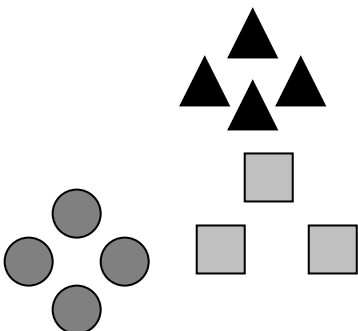|		
Location – where would you find it	**Does it sound like another word?**	**What's the first sound?**
What is it used for?	Linked words Think of a word that is linked in meaning	Make a sentence with the word in
What category?	**Joker card**	**How many syllables?**

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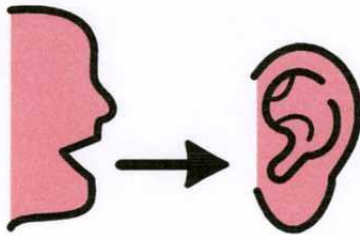Cue Cards for teaching new words

New word

word

What do you know about this word

?

word

Does it sound like another word you know
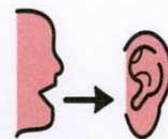
What other words link with this word

word

Make a link with another word
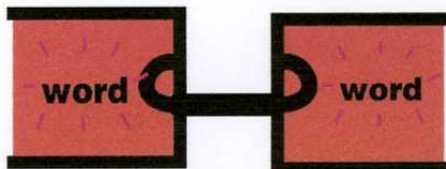
word — word

Think of a word that sounds like the new word

word

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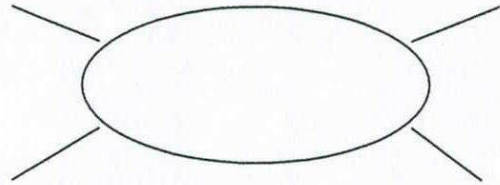|	
What idea does the new word link to? word	**How many syllables does the word have? What sounds are in the word?** El e phant ___ ___ ___
Use the word in a sentence word _ _ _ _ _ _	**Write the word**
say the word	**Define the word** Word
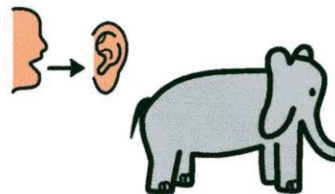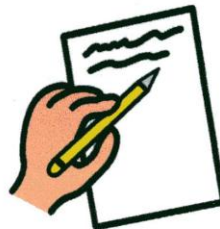
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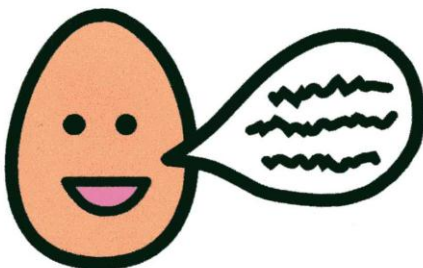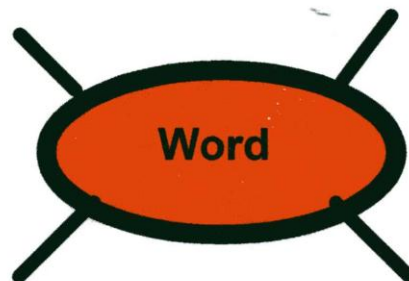
Be a Word Wizard!!

Think of Sound

- It starts with ……..

- It rhymes with ……..

- It has …… syllables.

Think of Meaning

Use it in a Sentence

....

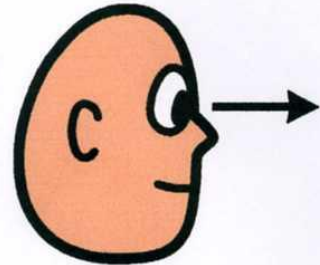..
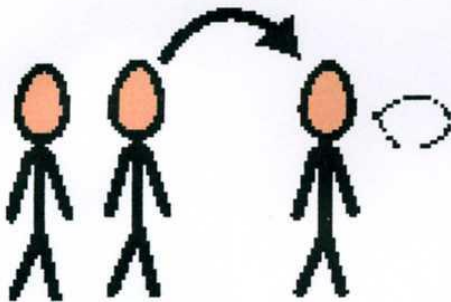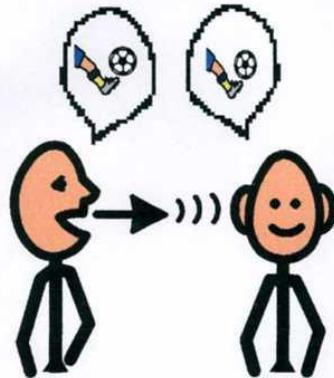
good listening
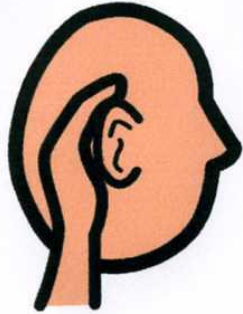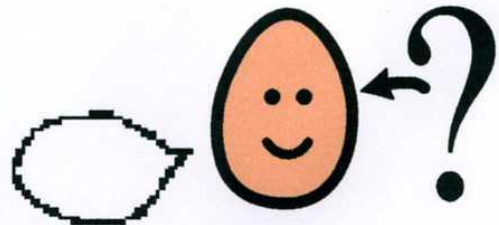
Look at the person speaking

Take turns to talk

Talk about the same thing

Ask questions

PROCESSES INVOLVED IN WORD LEARNING AND WORD USING

Semantic Representation
Stores information about the meaning of words

Grammatical presentation
Stores information about the way the word is used in a sentence

Phonological Representation
Stores information about the sound structure of the word

Motor Representation
Stores information about the way the word is spoken

Orthographic Representation
Stores information about the way the word is written

Short term auditory memory skills – to be able to recall words spoken long enough to store them

Selecting the correct word to express the idea

Speech sound analysis – being able to recognise differences in the sound structure of words

Assembling the correct sounds to say the word

Speech discrimination – being able to distinguish speech from non-speech. Response to intonation, pitch and tone etc

Formulating the sentence, using the word correctly

Intact Hearing

Co-ordination of the muscles for speech

Intact physical organs for speech

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