



A2Z Learning
Working with
Verbal Reasoning
for the 11+

Verbal Reasoning (VR) tests were invented to test pupils' logic and language skills - although they do sometimes include questions about numbers. To do well in a VR test, the most important thing is to be systematic, to have a plan for what to do if the question is hard. Fortunately, there are plenty of past papers available online so the types of question are well known. Here is a guide to the different kinds of problems and the best ways to approach them.

Verbal Reasoning tests are always multiple choice, so it's very important to answer every question. If you don't know the answer, you should work by process of elimination until you have as few options left as possible and then guess.

Guessing is fine in Verbal Reasoning: the only thing worse than a wrong answer is no answer at all! You can then mark those questions by circling or underlining the question numbers or putting an asterisk next to them so that you can easily review your guesses if you have any time left after finishing the paper.

It's very tempting to give up when you see a difficult question, have a go but do not spend too much time on it. In general, you get around 40-60 seconds for each question, so you should be prepared to guess after roughly that amount of time. If you spend too much time on a tricky question you may not get time to answer some questions later in the paper- and you may have found these easy!

Another part of exam technique is to read the questions carefully. You're never going to get the right answer to the wrong question, so feel free to read the question again if you're not quite sure what it means.

Another popular technique is to answer the sections you know you can do first and then return to the areas you find trickier.

Insert a letter

1. One common type of question asks you to say which letter will start and finish two pairs of words:

E.g PRES()TAND and WIND()TAIN.

Sometimes the answer is obvious ('S' in this case), but, if it's not, the best thing to do is to look at all four words one after the other to see which letter might fit and then try that letter in the other words.

If that doesn't work, you should at least be able to work out if it's a vowel or a consonant that's missing, and it's also useful to know the most common letters in the English language, which are (in order) E, T, A, O, N, I, R, S and H. If it is not one of those, go through the alphabet. *Just remember there are different ways of pronouncing letters and different places to put the emphasis, so try writing down the likely options as well as saying them in your head.*

2. A variation on this question is that you need to add two letters into the brackets (not just one).

E.g rea ()urch

Find the odd words

In this kind of question, you're given five words, and you have to spot the two that don't fit with the others:

E.g Lorry, Helicopter, Taxi, Bus, Plane.

The best way is to try and find the three words that go together - whatever is left must be the odd ones out.

Don't just try to find a pair of words that go together. If you do, you might get the answer wrong if there's another word that goes with them. You might also get it wrong because the 'odd ones out' don't have anything in common. In this case, 'Helicopter' and 'Plane' ARE related, but they don't have to be.

If there are one or more words you don't know, you can at least work out which parts of speech they are (noun, verb etc). Once you know that, you will probably be able to see which ones belong together.

Alphabet Codes/Code Words

Here, you'll be asked either to put a word into code or to decode a word. To do that, you'll be given a word and the coded version, and it's up to you to work out how the code works:

E.g STRAW might become UVTCY.



Normally, you just have to move one or two spaces forwards or backwards in the alphabet (in this case, it's +2), but look out for other combinations.

They might involve changing direction or a change to the number of spaces or a combination of both, eg -1, +2, -3, +4. The good news is that you'll usually have an alphabet printed next to the question, so you can put your pencil on a letter and 'walk' forwards or backwards to get the coded version, but you can also write down the code underneath the word and write down how to get each letter with a positive or negative number - just make sure you don't get confused between coding and decoding!

Synonyms (Similar Meaning)

1. Synonyms are words that have similar meanings, such as cold and chilly. In synonym questions, you're given two groups of three words, and you need to find two synonyms, one from each group:

E.g (FILTER MATCH BREAK) (DENY DRAIN CONTEST).

The first thing to do is to have a quick look at all the words to see if the answer's obvious (MATCH and CONTEST, in this case). If it is, write it down.

If it's not, you need to be systematic: start with the first word in the first group and compare it with the first, second and third words in the other group. If that doesn't work, repeat for the second and third words of the first group. Just be careful to think about ALL the possible meanings of a word, eg 'minute' can mean 60 seconds, but it can also mean very small!

If you still can't do the question (because you don't know one or more of the words), try to work by process of elimination. That means narrowing down the options by getting rid of any pairs of words that don't mean the same. Once you've done that, feel free to guess which one of the leftover pairs is the answer.

One way of checking if words have a similar meaning is to think of a phrase or sentence containing one of them and then try substituting all the other options.

You can also narrow down the options by checking the parts of speech. If you're looking for a word that means the same, it will have to be the same part of speech as the other word, eg a noun, verb or adjective.

2. These questions are slightly different from the synonym questions in that you need to choose a word out of five that has some similarity to or relationship with two pairs of words in brackets:

E.g (alter, amend) (coins, money) repair, trial, revue, change, passage.

The two pairs of words in brackets usually have different meanings, so you need to look for a word with a double meaning. Again, have a quick look at all the words to see if the answer is obvious. If it is, write it down.

If it's not, go through the five words one by one, comparing them to the words in brackets. It's important to be open to the possibility of different meanings, so try to think laterally. In this example, for instance, the answer is 'change' as it can work as a verb meaning 'alter' or 'amend' but also as a noun meaning 'coins' or 'money'.

3. Another type of question that looks at similarities in the meaning of words are ones that have a word in *CAPITALS* and then five words to choose from- one of them being similar to the word in capitals.

E.g UNHAPPY (calm, upset, sad, happy, cross)

Antonyms (Opposite Meaning)

Antonyms are words that have opposite meanings, such as hard and soft. Like the similarities questions above there can be different types of questions that are asking you to spot antonyms.

1. E. g (GROW WATER WILD) (SLICE FREE TAME). The first thing to do is to have a quick look at all the words to see if the answer's obvious (WILD and TAME, in this case). If it is, write it down.

If it's not, you have to be systematic: start with the first word in the first group and compare it with the first, second and third words in the other group. If that doesn't work, repeat for the second and third words of the first group. Just be careful to think about ALL the possible meanings of a word, eg 'minute' can mean 60 seconds, but it can also mean very small!

If you still can't do the question (because you don't know one or more of the words), try to work by process of elimination. That means narrowing down the options by getting rid of any pairs of words that don't mean the opposite to each other. Once you've done that, feel free to guess which one of the leftover pairs is the answer.

2. Another type of question that looks at opposites in the meaning of words are ones that have a word in CAPITALS and then five words to choose from- one of them being the opposite to the word in capitals.

E.g UNHAPPY (calm, upset, sad, happy, cross)

Hidden Words

These questions ask you to find 'hidden' four-letter words between two (or more) other words in a sentence, using the last few letters from one word and the first few from the next:

E.g 'The bird sat on the roof'.

Again, scan the sentence quickly to see if the answer is obvious. If it is, write it down.

You might want to put your fingers on each pair of words with a four-letter gap in the middle so that you can see all the options as they appear just by moving your fingers along the line. In this example, the possible words are theb, hebi, ebir, irds, rdsa, dsat, sato, aton, tont, onth, nthe, ther, hero and eroo, so the answer is obviously 'hero', but note that 'tont' is spread over three words (sat, on and the), and some words are not long enough to have the usual number of possibilities.

Be careful- sometimes the word may be between more than two words, particularly if the sentence includes a small word such as 'a'.

Find the Missing Word

These questions ask you to find a missing set of three letters that make up a word:
eg There are an INITE number of stars in the sky.

First, look at the word in capitals and try to work out what it's meant to be in the context of the rest of the sentence.

If it's not obvious, try working out where the letters might be missing - is it after the first letter or the second or the third etc? Sometimes you might not know the word ('INFINITE' and therefore 'FIN' in this case), but, again, it's worth a guess - just make sure your made-up word sounds reasonable!

Algebra (Calculating with Letters)

Algebra uses letters to stand for numbers and is a way of creating useful general formulas for solving problems. In Verbal Reasoning tests, you'll generally have to add, subtract, multiply and/or divide letters:

E.g $A = 1$, $B = 2$, $C = 3$, so what is $A - B + C$?

The first step is to convert the letters to numbers, and then you can simply work out the answer as you would in Maths. Just make sure you're aware of BIDMAS/BODMAS.

This is an acronym that helps you remember the order of operations:

- Brackets first,
- Indices/Order (in other words, powers such as x squared),
- Division and Multiplication and lastly
- Addition and Subtraction.

Note that addition doesn't actually come before subtraction - they belong together, so those sums should be done in the order they appear in the question:

E.g in this case, $A - B$ must be done first ($1 - 2 = -1$) and then C added on ($-1 + 3 = 2$).

Complete the Calculation

This is another number question, and it again means you need to know BIDMAS/BODMAS.

You'll be given an equation (or number sentence), and you just have to fill in the missing number to make sure it balances:

E.g $24 - 10 + 6 = 8 + 7 + ()$.

First, work out what the complete side of the equation equals, and then add, subtract, divide or multiply by the numbers in the other side to work out the answer (in this case, $24 - 10 + 6 = 20$, and $20 - 8 - 7 = 5$, so 5 is the answer).

Don't forget you're working backwards to the answer, so you need to use the opposite operators!

Rearrange to make two new words

In these questions, you're given two words, and you need to take a letter from the first word and put it in any position in the second word to leave two new words:

E.g STOOP and FLAT.

Again, check first to see if the answer is obvious, but then work through systematically, picking letters from the first word one by one and trying to fit it into each position in the second word. (In this case, the answer is STOP and FLOAT.) Remember that both the new words must make sense!

Number Relationship

This is another Maths question in which you'll be given three sets of numbers in brackets with the middle one in square brackets. The middle number in the final set is missing, though, so you need to calculate it using the two on either side, based on what happens in the first two sets:

E.g (3 [15] 5) (2 [8] 4) (7 [] 3).

The calculation will only involve the four basic operations (addition, subtraction, multiplication and division), but it gets much harder when the numbers appear more than once!

In this example, all you need to do is multiply the outside numbers to get the answer ($3 \times 5 = 15$ and $2 \times 4 = 8$, so $7 \times 3 = 21$).

You might get more complicated questions like this one:

(16 [40] 8) (11 [27] 5) (4 [] 11).

Here, you need to add the first number to itself and then add the other one ($16 + 16 + 8 = 40$ and $11 + 11 + 5 = 27$, so $4 + 4 + 11 = 19$).

These kinds of questions can be tricky, so try not to spend too long on them. If it takes more than a minute or so to answer a question, it's time to move on. You can always come back later if you have time at the end of the test.

Alphabet Series/Sequence

These questions are a variation on number sequences in Maths - except using letters - and you answer them in the same way. You're presented with several pairs of letters, and you have to fill in the blanks by working out what the patterns are:

eg AB BD CF ??.

The best way to do this is to focus on the first and second letters of each pair separately as there will always be a pattern that links the first letters of each pair and a pattern that links the second letters of each pair, but there usually won't be a pattern that links one letter to the next.

There'll be a printed alphabet next to the question, so just do the same as you would for a number sequence question in Maths, drawing loops between the letters and labelling the 'jump' forwards or backwards in the alphabet, eg +1 or -2. Once you know what the pattern is, you can use it to work out the missing letters.

Analogies (Complete the Sentence)

In this type of question, you're given a sentence that includes three possibilities for two of the words. You need to use logic and common sense to work out what the two other words should be:

E.g Teacher is to (bus, school, kitchen) as doctor is to (office, train, hospital).

This is known as an analogy: you need to work out the relationship of the first word to one of the words in the first set of brackets in order to find the same relationship in the second half of the sentence. Again, the best way to do it is to have a quick scan to see if the answer is obvious. If it is, write it down.

If it's not, go through the possibilities one by one, making sure to put the relationship into words. In this example, a teacher 'works in a' school, and a doctor 'works in a' hospital, so 'school' and 'hospital' are the answer.

Word codes

1. You are given four words and three codes, and you need to find the code for a particular word or the word for a particular code:



eg TRIP PORT PAST TEST and 2741 1462 1851.

Unfortunately, there's no set way of doing these kinds of questions, so you just have to use a bit of logic and common sense. It's useful to remember that each letter is always represented by the same number, so you can look for patterns in the letters that match patterns in the numbers, eg a double T in one of the words might be matched by a double 3 in one of the codes, so that means T = 3, and you can also find out the numbers for all the other letters in that word.

In this example, TEST starts and finishes with the same letter, and 1851 starts and finishes with the same number, so TEST = 1851, which means T = 1, E = 8 and S = 5. You can then fill in those numbers for each of the remaining words, so TRIP = 1???, PORT = ???1 and PAST = ??51.

Next, you should be able to see that the letter R is the second letter in TRIP and the third in PORT, and that's matched by the number 4, which is the second number in 1462 and the third in 2741.

That means R = 4, which means TRIP = 14??, PORT = ??41 and PAST = ??51. The only code starting with 14 is 1462, so TRIP = 1462, and the only code ending with 41 is 2741, so PORT = 2741 and the only code ending with 51 is 2351, so PAST = 2351.

If PAST = 2351, that also tells us that A must equal 3, so you now know what each letter stands for, and you can answer any possible question they might throw at you. Phew!

2. In these code questions you are given a word in code then asked to code or decode a second example:

E.g If the code for DUCK is EVDL what is the code for CAT?

OR If EVDL is the code for DUCK what is DBU code for?

You will need to work out the pattern of the code. Luckily, there will be a printed alphabet to help you.

For these examples the code is relatively easy. D has moved to E, U has moved to V etc so it is +1 letter- so to solve the code would be -1 letter.



Letter Relationships

For these questions, you're given a sentence that describes the relationship between two pairs of letters - a little bit like the sentence analogies earlier but using codes.

The final pair of letters is missing, so you need to work out what they are by finding the relationship between the first two pairs:

E.g *CG* is to *ED* as *BW* is to ().

You should see an alphabet line to help you. The first relationship to look at is between the first letter of the first two pairs. In this case, you get from *C* to *E* by moving forward two places in the alphabet.

That means you need to move two places on from *B* to get the first letter of the missing pair, which is *D*. Repeat this for the second letters, and you'll find the other half of the answer.

In this case, you get from *G* to *D* by going back three places, so you need to go back the same three places from *W* to get *T*. The overall answer is therefore *DT*.

Complete Word Pairs

These questions are similar to word codes but, fortunately, much easier! You are given three pairs of words in brackets, and you have to work out the missing word at the end by what has gone before:

E.g (SHOUT, SHOT) (SOLDER, SOLE) (FLUTED,).

The best way to go about it is to write down the position of the letters in the second word of the first two sets of brackets as they appear in the first.

In other words, the letters from *SHOT* appear in positions 1, 2, 3 and 5 in the first word, and the letters from *SOLE* also appear in positions 1, 2, 3 and 5 in the first word, so the missing word must consist of the same letters from *FLUTED*, which means it must be *FLUE*.

Now, you may not know that a flue is a kind of chimney, but don't let that put you off. Just make sure you've got the right letters, and the answer must be right - even if you've never heard of it!

Another variation on this type of question contains a string of letters that appears in both words of each pair, just with a different letter or letters to start:

E.g (BLOAT, COAT) (CLING, DING) (SHOUT,).

The easy bit is to find the repeated set of letters (in this case OAT) and to see that the second letter is dropped each time, but you still need to work out why the first letter changes (from B to C and then C to D).

That shouldn't be too hard to work out, though, if you just go through the alphabet to find how many positions forwards or backwards you need to go (in this case, it's +1, so the answer is TOUT).

Number Series/Sequences

These questions provide you with a series of numbers and ask you to fill in the blanks, which might be anywhere in the sequence:

E.g 1, 3, 5, 7, ?, ?.

As with alphabet series, the best way to find the answer is to draw a loop between each pair of numbers and write down the change in value.

In this case, it's simple (+2 each time), so the answer is 9 and 11, but look out for more complicated sequences.

It's worth knowing the most common sequences, just so you can recognise them at once and don't have to work them out. Here are a few of the commonest ones:

Even numbers: 2, 4, 6, 8 etc... Rule: $2n$

Odd numbers: 1, 3, 5, 7 etc... Rule: $2n - 1$

Powers of 2: 2, 4, 8, 16 etc... Rule: 2^n

Prime numbers: 2, 3, 5, 7 etc... Rule: n/a (each number is only divisible by itself and one)

Square numbers: 1, 4, 9, 16 etc... Rule: n^2

Triangular numbers: 1, 3, 6, 10 etc... Rule: sum of the numbers from 1 to n

Fibonacci sequence: 1, 1, 2, 3 etc... Rule: $n_{-2} + n_{-1}$ (ie each successive number is produced by adding the previous two numbers together, eg $1 + 1 = 2$, $1 + 2 = 3$)

Things get trickier when the sequence is a mixture of two separate sequences:

E.g 1, 3, 2, 5, 3, ?, ?.

Here, the integers (1, 2, 3 etc) are mixed in with odd numbers starting with 3 (3, 5 etc), so you can't simply find the difference between one number and the next - you need to look at every other number.

In this example, the first missing number is the next integer after 1, 2 and 3, which is 4, and the second one is the next odd number after 3 and 5, which is 7.

Compound Words (Form New Word)

1. Here, you're given two groups of three words, and you need to make a word by adding one from the first group to one from the second:

E.g (sleek pain seek) (search green killer).

Again, it's important to be systematic, so you have to start with the first word in the first group and try to match it with each word in the second group.

If that doesn't work, repeat as necessary for the next two words in the first group. In this case, 'pain' goes with 'killer' to make 'painkiller'.

2. Another compound word question is where you are given three or four words and asked to find a word that can either be added to the front or end of each to make new words.

E.g ____brush ____band ____style ____piece

Here you need to look at all the words given and think of a word that could go in front of all of them. In this case it would be 'hair' - making the words- hairbrush, hairband, hairstyle, and hairpiece.

Create a Word (from the Letters of Two Others)

These questions give you two groups of three words with the middle one in brackets in the first group and missing in the second:

E.g arise (rage) gears paste () moans.

What you need to do is work out what the missing word is by finding where the letters in the word in brackets in the first group come from. They are all taken from the words outside the brackets, so it's just a case of working out which letter in the words outside the brackets matches each letter in the word inside the brackets.

Your best bet is to write down the second group of words underneath the first and go through each letter one by one. Just look out for letters that either appear twice in one of the words or letters that appear in both words outside the brackets.

Those will obviously give you two different possible letters for the answer word, so you should probably write both one above the other until you've worked everything out and then simply choose the one that makes a proper word.

In this example, the R from 'rage' might come from 'arise' or 'gears', so the first letter of the answer word is going to be either the second letter of 'paste' (A) or the fourth letter of 'moans' (N). The same is true of the A and E in 'rage'. Once you work it all out, the letters are a or n, p or a, m and e or o, and the only sensible word is 'name'.

Comprehension

The exact format of comprehension questions differs, but you'll usually be given a lot of information about different people, and you'll have to find the missing data.

The subject could be people's heights or ages, or it could be a schedule of events. For example, *three children - Susan, George and Ryan - all left school at 1515 and walked home. Susan arrived home first. George arrived home five minutes later at 1530. It took Ryan 10 minutes longer than Susan to walk home. What time did Ryan get home?*

The way to approach any of these questions is to build a complete picture of the situation by starting with something you know and then working from there - a bit like building a jigsaw.

Start with the absolute data (about heights, ages or times) and then move on to the relative data (comparing other people's heights, ages or times).

One thing that often helps is to draw a timeline or simply write down the names of the children in order (of height, age etc).

In this example, a timeline is probably your best option, starting at 1515 when the children left school and including *George* getting home at 1530. You can then add in *Susan's* arrival time of 1525 (as she arrived five minutes before *George*) and finally *Ryan's* arrival time of 1535 (as he arrived 10 minutes after *Susan*).