Learning chess

Manual for chess trainers

Step 1

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Contents

Preface ............................................. 4
The first step ................................... 5
How children learn to play chess .... 6
Organisation .................................. 10
Who should teach chess? .......... 12
Motivation ..................................... 13

Teaching ........................................ 14
- Orientation ................................. 17
- Prior knowledge ......................... 17
- Acquisition ................................. 18
  · Introduction ............................. 18
  · Concepts ................................. 18
  · Instruction .............................. 18
  · Summary ................................. 22
- Practice .................................... 22
  · Reminders ................................. 22
  · The workbook ............................ 23
  · Playing formats ........................... 28
- Testing ...................................... 37

Certificates .................................... 38
Running groups ............................. 39
The Chess Tutor ............................. 43
Indications for the use of this manual .......... 45

Basic lessons
1: The board and the pieces .......... 46
2: How the pieces move .......... 52
3: Attack and capture ............ 62
4: The pawn ................................. 71
5: Defending ................................. 80

6: Check ........................................... 89
7: Mate (1) ........................................... 95
8: Mate (2) ....................................... 101
9: Castling ....................................... 111
10: The profitable exchange ....... 116
11: The twofold attack .............. 123
12: Draws ................................. 129
13: Mating with the queen ......... 134
14: Capturing en passant ........... 138
15: The notation ......................... 141

Additional workbooks ............... 146
Step 1 extra ................................. 147
Step 1 plus ................................. 148
Stepping stones 1 and 2 .......... 149

Plus lessons
1⁺: Winning material ............. 150
2⁺: Defending ............................... 156
3⁺: Mate ................................. 164
4⁺: Board vision ..................... 169
5⁺: Defending against mate .... 177
6⁺: Draws ................................. 182
7⁺: Creating mate ................. 186
8⁺: The passed pawn ............. 191

Stepping stones ....................... 197
The ‘chess lessons’ ................. 202

List of concepts ....................... 216
The steps ................................. 224
The first step

The first step deals with all the rules (laws) of the game of chess. Additionally, a lot of attention is devoted to the basic skills that are necessary to play the game.

So we have prepared 15 lessons for you. So many lessons? Is it not much more useful to teach the children how the various pieces move and how to deliver mate, and then just to let them play? No, that is not the correct way to go about things. Very soon after the introduction of the Steps method in 1987 it appeared that after one year the ‘Steps kids’ were able to play much better chess than those children who had only been playing.

Instruction (the manual), practice (the workbook) and play are all necessary. The slimmed-down version, just handing the workbook out to the students and letting them solve the exercises is better than just playing, but still quite a way from the optimal result. Solving chess exercises is useful, but without guidance any pedagogical effect remains limited to the learning of patterns. But it is possible to achieve much more.

For those who remain unconvinced by the experiences, there is a second reason which will justify the Steps method:

How do we learn? Two domains are of great significance: long term memory and working memory, respectively the storage area and the area in which we are thinking. The interplay between these two is important.

Playing chess means solving problems. Every time we move we face the challenge of finding a good move. Good chess players have stored in their long term memory a lot of chess knowledge and are also able to play good moves without a lot of thought. What they have to thank for this ability is their enormous experience, which has been stored in the form of a mental grid. What we are talking about here is knowledge, patterns, techniques (how do I mate with a queen), rules of thumb, (standard) solutions for typical problems, etc. The non chess player – old or young – has not yet learned anything and his long term memory insofar as chess is concerned is empty. He has to resort to his working memory. That is limited not only in terms of capacity (4 – 7 elements), but also in time (within 30 seconds everything has been forgotten unless one actually does something with the available information). Without reasoned instruction a beginner will never learn the correct things. It is specifically instruction and the processing of what has been learnt that bring about structured storage within the long term memory. The player can fall back on that in a game. Purely playing does mean learning.
things too, but as well as some good things also some wrong ones. There are many (important) things which are never discovered.

Chess is learned one step at a time. Slowly, but very surely. The elementary learning material appears to be simple and indeed, some teachers are tempted into rattling through the first step in three months. That is not the best approach, however, not for children and not for adults either. Just assimilating the moves of the various pieces and how to play safe moves takes months. Essential chess techniques like mating the opponent require a more extended learning period.

It is better to plan a period of a year to really master the basic skills (there will always be exceptions). Combine lessons with a lot of play in the early learning phase too, even when not all the rules are known. Just let the students play. You will easily catch up on ‘lost’ time at a later stage.

How children learn to play chess

The game of chess has an enormous attraction to children. The shape and different moves of the chess pieces fascinate them. Chess is a game in which you can be boss, and where you face the consequences of your own actions. Good or bad luck, such as you experience in games like ‘Bingo’ or ‘Monopoly’, do not exist in chess. In short, children think it is a nice – even cool – game.

Capturing
After learning the way the pieces move and how to capture your opponent’s pieces, playing becomes a real treat. For children, the first aim of the game then becomes capturing the opponent’s pieces. The captured pieces are then neatly arranged in order of battle along the side of the board, preferably on their own side. The loot is regularly counted. Children will even count the pieces again if nothing has been captured in the meantime.

Capturing becomes the aim of the game for children. It does not really matter a lot to them whether material is lost. Even if they know the concept of mating and are partially capable of executing mate, they will remain so fascinated by capturing that this is what they are after in the first place. They will select a piece (each child having his or her own preference) and will start hunting with it. If the piece is killed in action, then it is the turn of the next piece. When one of the players is mated, it is often by accident and it comes as a surprise to both players. They would rather continue! “You are mated” is countered by “Yes, but I’ve got your queen.”
2 How the pieces move

AIM OF THE LESSON
• learning the way chess pieces move
• learning the ranking order of chess pieces

PRIOR KNOWLEDGE
• the names of the chess pieces

ACQUISITION

Concepts
move, making a move, straight, diagonally, forwards, backwards, sideways, rules of the game, game

Instruction
We will now discuss the way the pieces move in the order of the difficulty they create for the students.

The rook
We will therefore start with the rook, the easiest one. The students have to look for the rook in their own chess set. We put the rook on e4 (diagram □) and show what the rook can do. The rook goes straight: forwards, backwards and sideways as far as you want it to go. We move the rook from e4 to b4. White has played a rook move. We play the rook to the other squares, to the middle, to the edge and into the corner. We show all the different possibilities on the board and give a running commentary. The students can practise the moves of the rook on their own boards, alone or in twos. In the latter case, they play each a move in turn as White and Black. The rooks are not allowed to land on the same square.
In the chess club we certainly cannot go through all the mini-games. However useful they may be, we must also be moving forward. Ask the students whether they would like to play these games at home with their friends. If they have no friends nearby who play chess, then perhaps their father or mother who would like to learn to play chess? In school (between lessons) and at home there are many more opportunities to play the games.

**ANSWERS**

☐ *Rules of the game / Moves of the pieces: A*

1) Rb4: b1, b2, b3, b5, b6, b7, b8, a4, c4, d4, e4, f4, g4, h4  
2) Bd7: a4, b5, c6, e8, c8, e6, f5, g4, h3  
3) Ne4: c3, c5, d6, f6, g5, g3, f2, d2  
4) Qg7: a7, b7, c7, d7, e7, f7, h7, g1, g2, g3, g4, g5, g6, g8, f6, e5, d4, c3, b2, a1, h8, f8, h6  
5) Kb3: a2, a3, a4, b4, c4, c3, c2, b2  
6) Ng5: e4, e6, f7, h7, h3, f3  
7) Rh8: a8, b8, c8, d8, e8, f8, g8, h1, h2, h3, h4, h5, h6, h7  
8) Qe4: a4, b4, c4, d4, f4, g4, h4, e1, e2, e3, e5, e6, e7, e8, d3, c2, b1, d5, c6, b7, a8, f3, g2, h1, f5, g6, h7  
9) Ke8: d8, d7, e7, f7, f8  
10) Na7: b5, c6, c8  
11) Drawing  
12) Rg2: a2, b2, c2, d2, e2, f2, h2, g1, g3, g4, g5, g6, g7, g8
Additional workbooks

The development of the Step method began in 1985. In 1987 the manual and the worksheets for the first step were published (only in Dutch). Steps 1 to 5 (the basic section) were finished in 1990.

The amount of exercises was quite unusual for that time and met with enthusiasm and acclaim, but there was also doubt. Have the children to solve so many exercises? Time has shown that this question has a positive answer. The chess world agreed. Indeed, after some 15 years the demand came for ‘more’.

This resulted initially in two new additions, the workbooks Extra and Plus. More or less simultaneously came the desire for exercises for young children around the age of six. The Stepping Stones appeared.

Some justification for expanding the number of workbooks might be appropriate. Almost all the students are not yet able to play chess well enough even after finishing the workbook accompanying Step 1. In every game pieces are still being given away and pieces which have been left en prise by the opponent are not always being taken. They do not yet have a sufficiently good overview of what is happening on the board, i.e. they do not yet see all the possible attacking and defensive options. We must tackle this vision as our top priority, or else it will remain a serious weakness for longer than necessary. We should not deal with new material before the children have mastered the basics to a great enough degree. Watch carefully to be sure that they apply in their own games what they have learnt from the lessons and the exercises. Should a child not spot immediately that one of the pieces is hanging, then it makes little sense to want to teach him to look for the double attack (Step 2) in his own games. Keep in mind: this applies to playing games, the lessons and the exercises they do understand!

If, during a game, someone is obliged to look carefully to see if a piece is en prise, then that person will certainly not spot that on the next move two pieces will be in danger!

The best method for the improvement of children’s board vision is to let them play games (at the start mini-games). It is helpful to remember that every child will require a different amount of time to master every phase (as defined in the introduction ‘How children learn to play chess’). One child may need to play 300 games, another one perhaps 1000. Of course, solving exercises also develops this overview of the board. In addition to the normal workbook for Step 1, we have therefore published more workbooks for this same level. Thanks to these additional workbooks students can continue practising at more
or less the same level and thus spend longer going through a Step. The level of difficulty increases slightly, so that the exercises continue to be challenging.

More training material has several advantages:

- Many students immediately take on the second Step as soon as they have completed the first one. Their playing strength usually does not keep pace, they apply what they have learned insufficiently well in their games. The students would have to play more. Thanks to the additional workbooks students at almost the same level can practice more and so they can do more and spend longer on a Step. It is important that the degree of difficulty does not mount up too soon. The shortcoming of (too) quickly proceeding to the next Step can be somewhat countered this way.
- When solving exercises the students should look at the positions in a correct way. The more that happens, the greater the chance that they will do so in their games.
- The ability to differentiate is greatly expanded. That goes for the weaker students (extra practice on the same theme) and for the better ones (more and more difficult tasks).
- Repeat. We forget, when we do not repeat, so we must repeat so as not to forget.

At what moment can we implement these workbooks? A general recommendation is not possible. The workbook Step 1 Extra can already be used while working with the basic Step 1 workbook. It is up to the trainer to decide whether parts of the Plus books will be discussed in between. That obviously depends on the level of the group but it is easy to imagine that a single theme from the Plus book pops up during simultaneous play. Also certain exercises in the workbook can be discussed briefly earlier. The route planners are definitely suitable.

A trainer who has a good picture of the entire first Step and knows what he is doing, can combine things.

**Step 1 extra**

The extra workbook is full of exercises. In the first half of this extra workbook you will find tasks with the same themes as were dealt with in the workbook for Step 1. These serve not only as extra practice but also as revision.
The second half of the workbook contains tasks of the type ‘Mix’. That means that there is no hint as to the theme of the exercise, with the result that they are more like a real game. Solving exercises of this sort is difficult for those on Step 1. Fortunately the subjects of the exercises are restricted to themes dealt with in Step 1: winning material, delivering mate in one and defending. That was just about everything. For every task the student should go through and tick off the three questions on this list:

• Can I win material?
• Can I deliver mate?
• Is one of my pieces in danger?

With this kind of mixed exercise children need more encouragement in the beginning to keep trying. The role of the coach is important; these exercises have to be addressed at the right time.

You will find the answers to the exercises on the website:

**Step 1 plus**

The classification of the material in the first years of the method (1987) served well enough. But many years of experience showed that a single essential part was discussed insufficiently. That was an important motive for the Plus Series.

The themes in the Plus section concentrate very much on the improving of board vision. The material is to a great extent familiar, though there is an important extra: students are asked to choose between two different options. That is true for the lessons ‘Winning material’, ‘Defending’ (defending is also dealt with in two other lessons) and ‘Board vision’.

We come up against the spatial aspect, which is still a difficult topic for this Step, in the lessons on mate and draws. We go into both of these concepts in more depth and we set different types of exercise. When a concept is difficult, and ‘mate’ is certainly that, it helps to do a lot of varied practice. In Step 1 plus the student really has to think, otherwise he won’t succeed. He really has to get into things.

We deal with all the themes in eight Plus lessons. Some of these can be short. The main thing is that the students are able to solve the exercises correctly. For that reason we do not recommend to skip the instruction.
In the workbook Step 1 Plus attention is paid to:

- new subjects
  - route planner
  - defend against mate
  - the passed pawn
- deepening of important topics
  - winning material
  - mate
  - draws
- exercises to increase skills (e.g. board vision)

**Stepping stones 1 and 2**

In the eighties of the last century young children barely played chess. Slowly but surely this changed. For years there has been a strong trend towards children learning to play chess at an early age. The consequence was that the demand for material suitable for younger children was growing with every passing year. For those clubs which are working with young people, this is in theory a very positive development. Children remain members for longer (the majority of children only give up playing chess when they leave primary school) and become better chess players, which in turn increases the chances that they will remain members. Unfortunately, the reality is not quite so rosy. We are a long way from managing to hang on to these young players. Often, due to the lack of trainers, the children train along with older adolescents. That does not work for more than a short time. The child stops enjoying the training and leaves the club. So a special way of handling this problem must be found. Perhaps the ‘Stepping stones’ can make a positive contribution here.

*Step 1 plus*

From the next page on you will find the lessons for the plus workbook.

*Stepping stones 1 and 2*

From page 197 you can find guidelines for the use of the Stepping stones. The ‘chess lessons’ for those workbooks start at page 202.
AIM OF THE LESSON
• to improve mating skills

PRIOR KNOWLEDGE
• mate in one
• mating patterns

ACQUISITION

Instruction
Where can the king still go to? Which piece is the guard and which is the chaser? These are helpful questions when we start to learn to deliver mate. But this method does not work for all mate-in-one exercises.

X-ray protection
We shall start with positions in which the guard is undefended. In the left of the diagram the rook on a1 is in danger and in their games most children will move the rook without thinking. Of course, Black has a much better move, namely 1. ... Bc5-d4#. The bishop protects its rook on the other side of the white king. It is not easy to see this sort of x-ray protection. On the right, White mates with 1. Qf7-g7#.

Indirect guard
In the diagram we are dealing with an indirect guard. As soon as the black knight moves, the rook on b8 will be controlling the b-file. That is far from simple for someone doing the first step! Black can deliver mate with 1. ... Nb4-c2#. On the right, White mates with 1. Ng4-f6#. The square on h4 is suddenly no longer available.
In this diagram (☉) we have two similar examples. On the left, Black delivers mate with 1... b3-b2#. The bishop on a4 takes over control of the c2-square and deprives the king of the flight square d1. Children are not used to a single move having so many different consequences. On the right the queen is not required to guard the g7- and h8-squares. This task is taken on by the bishop after 1. Qe5-e8#.

**Discovered check**

After these examples it is a logical step to mate in one by means of discovered check. The concept of ‘discovered check’ may be named as it is not too difficult to understand. It is not the piece which moves which gives check, but another piece. Two simple examples are portrayed in the diagram (☉). On the left Black delivers mate with 1. ... Kc3-b3#. The king takes control of the a2-square, and the bishop gives check.

On the right the black king has at least three escape squares available. That is not enough, because after 1. Rf6-f3# Black is mated.

In games at this level discovered check is a very strong weapon. Children generally do not pay much attention to this possibility.

The examples in the diagram (☉) are somewhat more difficult. In this case the discovered check does not deprive the opposing king of squares to go to; instead it prevents a possible defence. On the left Black plays 1. ... Na3-b5#, to prevent the rook from interposing.

On the right, after 1. Bh7-f5# Black can no longer take the white rook.

**How many times mate in one?**

In the exercises there are two pages of mate-in-one tasks where you must find as many solutions as possible.
In this diagram (†) there is an example of this. White can deliver mate in one. The art is to find all the moves which deliver mate in one. There are the following four: 1. Qb2-f2#, 1. Qb2-c3#, 1. Rf5-f3# and 1. Rf5-e5#.

**Practice**

**Reminder**

◊ *Mate*

**Workbook**

- Mate / Mate in one (Find as many as possible): A
- Mate / Mate in one (Find as many as possible): B

**Explanation:** How many moves constitute mate in one? It is best if all the possibilities are found, though of course we can always be satisfied with less, according to circumstances.

**Mistake:** A student does not find all the answers.

**Help:** Not really ‘wrong’, but many a student is enough of a perfectionist not to give up. We can give a hint: “There is still a possible mate with the queen”.

- Mate / Mate in one: A
- Mate / Mate in one: B

**Explanation:** The opposing king still has a relatively high number of escape squares. The piece which delivers mate clears the way for another piece which guards these escape squares. As in many such exercises, the first positions take a lot of effort, but after that the student solves them without problem.

**Mistake:** The answer is wrong.

**Help:** Arrange things so that the piece which delivers mate starts from a different square. Then the piece which at the moment is indirectly guarding the escape squares appears as a direct guard. There are some positions for which this help cannot be offered (the board is too small – e.g. Exercise A, Position 2 – or then another mate would be possible – e.g. Exercise B, Position 9).
Mate / Mate in one: C
Explanation: In the starting position the chaser is also the guard. Behind the chaser there is another piece which moves in the same way. In general that is the way the tasks go. As soon as the student grasps the importance of the rear piece, then there will be no more problems.
Mistake: The position is not solved.
Help: Arrange things so that the piece which delivers mate starts from a different square.

Mate / Mate in one: C
Explanation: In the starting position the chaser is also the guard. Behind the chaser there is another piece which moves in the same way. In general that is the way the tasks go. As soon as the student grasps the importance of the rear piece, then there will be no more problems.
Mistake: The position is not solved.
Help: Arrange things so that the piece which delivers mate starts from a different square.

Mate / Mate in one by a discovered check: A
Explanation: The indirect attack on the king must be turned into a direct (check). The piece which is moved has to have a role: protect a guard, deprive the king of escape squares, prevent a possible defence.
Mistake: There is no mate.
Help: Which move can your opponent still make? What can you do against it?

Answers

Mate / Mate in one (Find as many as possible): A
1) 3x: 1. Qd6-d2# ; 1. Qd6-c5# ; 1. Qd6-b6#
2) 2x: 1. Qf3-e4# ; 1. Qf3-f7#
3) 4x: 1. Qf6-g7# ; 1. Qf6-h8# ; 1. Rh1xh5# ; 1. Be3xg5#
4) 3x: 1. Qf7xh5# ; 1. Be3xg5# ; 1. Qf6-g7#
5) 3x: 1. ... Nh2-f3# ; 1. ... Qh3-g2# ; 1. ... Nh2xf1#
6) 3x: 1. Rf7-g7# ; 1. Qf6-h8# ; 1. Qf6-g7#
7) 4x: 1. f7-f8R# ; 1. Qg6-g8# ; 1. Qg6-h6# ; 1. f7-f8Q#
8) 3x: 1. ... g5-g4# ; 1. ... Nd3-f2# ; 1. ... Qf4xh4#
9) 3x: 1. Qe7-g7# ; 1. Qe7-f8# ; 1. Qe7-e8#
10) 3x: 1. d2-d4# ; 1. g2-g3#
11) drawing
12) drawing
The workbooks ‘Stepping stones 1 and 2’ are designed in the first place for children between the ages of six and nine. For children in this age group the workbook for Step 1 has disadvantages. With good will and some care, it can be made to work but it is far from ideal. Now the material of Step 1 is divided into two workbooks.

So what changes have we made compared to that Step 1 workbook?

• The diagrams are bigger.
  Younger child find it easier to recognise larger pieces. In addition there is more space for them to write. Fine motor skills have not yet developed far enough at this age for them to be able to draw the crosses and plus signs in the small diagrams without mistakes creeping in. For that reason there are only six diagrams per page, which has the extra advantage that the amount of work does not appear too great. Moreover, there can be no objection to their doing only some of the tasks.

• In the Stepping stones there is practically no text.
  At the age of six, children can often read without yet being able to grasp the meaning of the text. So there are no reminders.

• The tasks are simpler.
  There are fewer pieces in the diagrams, since young children find it difficult to cope with positions where there is a lot of material on the board.

• Some of the exercises have been changed.
  Many basic abilities have not yet been sufficiently well developed. In order for them to learn to pay more attention to what their opponent is doing, we have provided exercises along the lines of: ‘Choose the safe route’.

• Many themes have been sub-divided.
  This makes what is being taught more accessible.

• The order of the lessons has been tailored to suit them.
  The lesson ‘Castling’ can now be found between the two lessons on mate. It does no harm if the children take longer to deal with a way of checkmating. The lesson on ‘The twofold attack’ now comes in later. Only the simplest forms of it have been treated.
The steps

Books

The following books are available in the ‘Steps Method’ series:

Manuals for chess trainers:  Step 1, Step 2, Step 3, Step 4, Step 5
Basic workbooks:  Stepping stones 1, Stepping stones 2, Step 1, Step 2, Step 3, Step 4, Step 5, Step 6
Extra workbooks:  Step 1 extra, Step 2 extra, Step 3 extra, Step 4 extra, Step 5 extra, Step 6 extra
Plus workbooks:  Step 1 plus, Step 2 plus, Step 3 plus, Step 4 plus, Step 5 plus
Mix workbooks:  Step 3 mix, Step 4 mix, Step 5 mix
Manual for independent learners:  Step 6
Thinking ahead:  Step 2, Stap 3

The title represented in italic is only available in Dutch yet.

Updated information can be found at our website:
All books can be ordered from this website for worldwide delivery:

Software

The Chess Tutor for Windows is a series of chess learning software based on the ‘Steps Method’. Chess Tutor Step 1, Chess Tutor Step 2 and Chess Tutor Step 3 are available as download or as CD-ROM. You can first try the Chess Tutor using a free demo version.