

MINICHESS ACTIVITIES

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Chess learning resources for teachers and parents
of young children

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INTRODUCTION

This is one of three beginners' chess books offered by **Chess Heroes**.

Minichess Activities, the book you're reading now, is written for parents and teachers who want to use strategy games to improve young children's cognitive skills. This includes a wide variety of chess-based games and activities designed to help children's development in many ways while also providing them with the knowledge and skills to play a good game of chess should they wish to do so. It is suitable for children of junior school age: 7 to 11, but some activities may also be appropriate for younger children.

Junior Chess Heroes is a worksheet based course for children working on chess at home with their parents, but it could also be used in schools. You might want to see it as a chess equivalent of something like Kumon Maths. It's designed mainly for younger children (in principle 7+, but slightly younger children might also benefit as long as proactive parental support is available), but, if the format appeals, it could also be used by older learners.

Chess for Heroes is an activity based course using active learning techniques suitable for learners aged 9 to 90 (or above). It could also be used by primary schools as a second year course for children who have completed the *Minichess Activities* and would like to play competitive chess, or by secondary schools as a starter course.

Choose the course that you think will work best for you, or, if you prefer, mix and match. It's your choice.

We also offer stand-alone guides to the rules of chess, and to chess notation.

Perhaps you've read articles claiming that 'chess makes kids smarter', claiming that teaching young children to play chess will improve their maths and reading scores, or their problem solving skills, critical thinking skills, logical skills and creativity.

Chess isn't a magic bullet, though. In fact there's no evidence that chess has any unique and long-term extrinsic benefits at all, even though those who are making a living by promoting chess to young children might tell you otherwise.

Having said that, there are ways in which chess can be deconstructed and used in various ways to give a wide variety of both cognitive and social benefits. But this should be done by parents and teachers who know their children well rather than by professional chess teachers like me.

For several decades now there has also been a growing understanding that the best way to introduce chess to young children is through minigames based on subsets of chess. So if you use this method you gain in two ways.

The activities can be divided into four categories: introduction (providing background information and skills), protochess (doesn't include pawns or kings), which are ideal for teaching concentration skills and chessboard vision, prechess (includes pawns but not kings), which are ideal for teaching decision making and planning, and mnichess (includes kings, with checkmate/stalemate ending the game), which introduce children to chess via games not using all the pieces.

These games and activities come from a wide variety of sources, books, websites and personal experience. It's usually not possible to determine with any degree of certainty who invented each activity. I can only offer my thanks and acknowledgements to all pioneers of this method of teaching chess.

INTRODUCTION TO STRATEGIC BOARD GAMES

Classroom activity

Equipment: Whiteboard and pens for teacher, pencils and paper for pupils

Prior knowledge: none required

Ask pupils about board games: some games are pure luck, depending on the drawing of a card or the roll of a dice (snakes and ladders), some games are partly luck and partly skill, some games are all skill. We're going to look at games which are all skill.

Noughts and Crosses is a simple example. If both players play well, the game will be a draw. There are two ways you might win.

1. You create a threat to make a line and your opponent doesn't notice the threat.

X	O	O
X		

You're playing Crosses. Your opponent hasn't noticed your threat. Do you see how you can win? What do you have to do to avoid making a mistake, as Noughts has done here? You have to concentrate, focus, pay attention, look at the board. If you play without thinking, you'll lose.

2. You create two threats at the same time.

X		O
O		
X		X

Do you see both your threats here? If Noughts plays in the middle you can win by making a line in the bottom row. If Noughts plays in the bottom row you can win by playing in the middle and creating a diagonal line.

This is much harder. There are two ways you can avoid losing like this. The first way is to look ahead, to think about what your opponent is going to do next before making your move. The second way is to remember the patterns.

You can play a game online: <http://www.chesskids.org.uk/tictac.htm>.

These three ideas will be even more important when you come to look at harder games.

1. Concentrate and look at the board
2. Look ahead – ask yourself what will happen next
3. Remember patterns.

Outcomes:

Generic skills: concentration, foresight, taking care, long-term memory

Chess knowledge: none

Chess skills: none

TEEKO: A HARDER BOARD GAME

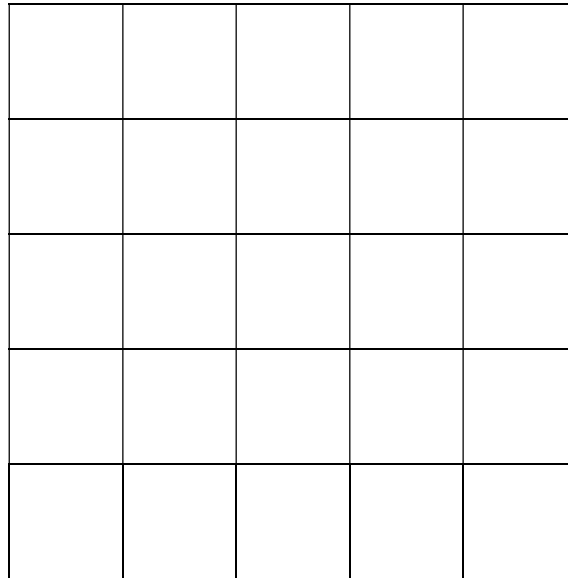
Competitive game

Equipment: chessboards or Teeko boards (can be printed off), pawns or counters of different colours

Prior knowledge: none required

This is a great, and not so well known, board game, invented by John Scarne in 1937, which might serve to bridge the gap between a very simple game like Noughts and Crosses and a very complex game like chess.

It's played on a 5x5 board (you can use part of a chessboard if you want) and two sets of four pawns, counters or whatever you have to hand.



Traditionally, the markers are black and red, with black starting, but it really doesn't matter.

The first player places a marker on any square, and the players then take it in turns to place markers on the board.

You win the game by placing all four of your markers in a row (vertical, horizontal or diagonal) or in a square. If neither player has won when all eight markers have been placed they take it in turns to move a marker to a vacant adjacent square. The markers can move one square at a time in any direction, vertically, horizontally or diagonally, just as a king in chess, but with no capturing allowed.

This is a great game for both individual competitions and matches between classes, houses, years, pupils v teachers or anything else you want.

There are many other games with relatively simple rules that can be used for in the same way: Connect Four and draughts for example.

The principles are the same as in Noughts and Crosses:

1. Concentrate and look at the board
2. Look ahead – ask yourself what will happen next
3. Remember patterns.

Outcomes:

Generic skills: concentration, foresight, taking care, long-term memory

Chess knowledge: king move, straight lines

Chess skills: none

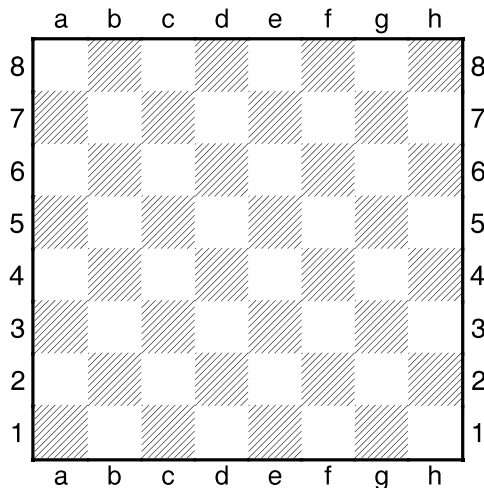
INTRODUCTION TO THE CHESSBOARD

Classroom activity

Equipment: smartboard, demonstration board or chessboards for pupils

Prior knowledge: maths (multiplication, calculation of areas of rectangles, square numbers)

Most board games are played on square boards. Board games might involve placing pieces on the board, moving them around the board or taking pieces off the board. 'Big chess' involves moving and taking off (capturing). Noughts and Crosses, for example, only involves placing pieces on the board. In Teeko you place pieces on the board and move them round, but never take them off. Most of the games we'll be looking at will be played on 8x8 boards, looking like this. We talk about the WHITE (or light) SQUARES and the BLACK (or dark) SQUARES even though the colours might be different on your board.



How many small squares are there on the board? How can you work it out quickly?

How many squares are there on the perimeter (outside) of the board? (Most children will get this wrong, multiplying 4x8 to get 32. This is a test of a good mathematician.)

You can make other squares as well. For instance a1, b1, a2, b2 is a square, as is b1, c1, b2, c2. The whole board is also a square.

Can you work out how many squares of all sizes there are in total on the board? Is there an easy way to work this out? How many squares would there be on a 10x10 board?

You can use a chessboard as a visual method of teaching multiplication up to 8x8. Create your own board to teach up to 10x10.

Note that you ALWAYS place the board with a WHITE SQUARE in your right hand corner. It's also helpful if you start with the white pieces on the ranks numbered 1 and 2, and the black pieces on the ranks numbered 7 and 8.

You'll find an online lesson on the chessboard here: <http://chesskids.org.uk/newcourse/ck3l1.htm>

Outcomes:

Generic skills: increased maths knowledge, multiplication, problem solving skills

Chess knowledge: familiarization with chessboard

Chess skills: none

CHESS NOTATION: NAMING THE SQUARES

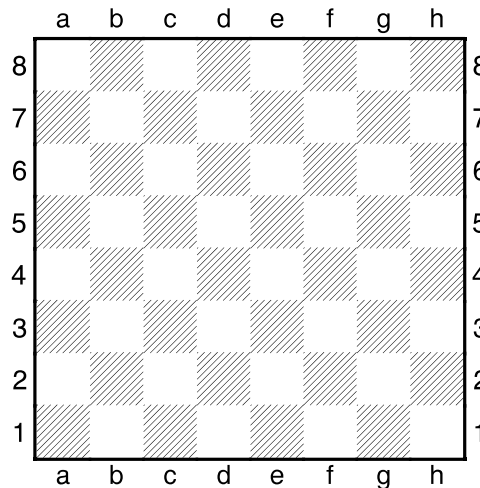
Classroom activity

Equipment: smartboard, demonstration board or chessboards for pupils

Prior knowledge: letters a-h, numbers 1-8

It's much easier to talk about games played on a chessboard if we give each square a name.

Here's the board again.



Notice the letters and numbers round the board.

The vertical lines going up and down are known as files. Each file has a letter, from a to h.

The horizontal lines going left and right are known as ranks. Each file has a number, from 1 to 8.

In maths we name the corners of the squares, but in chess we name the squares themselves.

Each square has a name based on the LETTER of the FILE followed by the NUMBER of the RANK.

For example: a1, e4, h8.

Practise finding and naming the squares. Visit <http://www.chesskids.org.uk/findsquare.htm> to see how many squares you can find in one minute.

Knowing the names of the squares will enable you to read chess books, to understand online chess lessons, and, if you want, to write down the moves of your own games.

Outcomes:

Generic skills: maths skills: coordinates, language skills: starting to learn a new language based on letters and numbers

Chess knowledge: familiarization with chessboard and names of squares

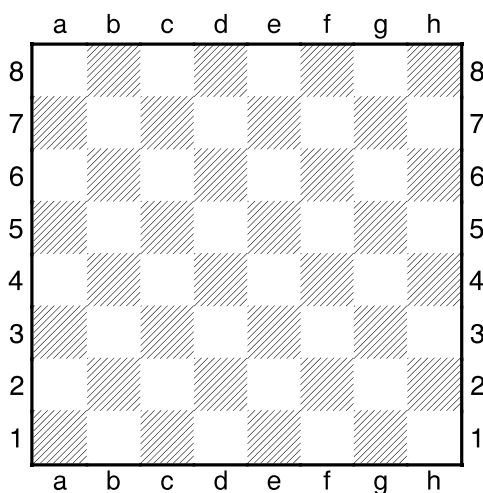
Chess skills: none

THE EIGHT OFFICERS PUZZLE

Protochess puzzle

Prior knowledge: none

Equipment: each group will need a chess board and eight pieces (for example, counters or pawns from a chess set)

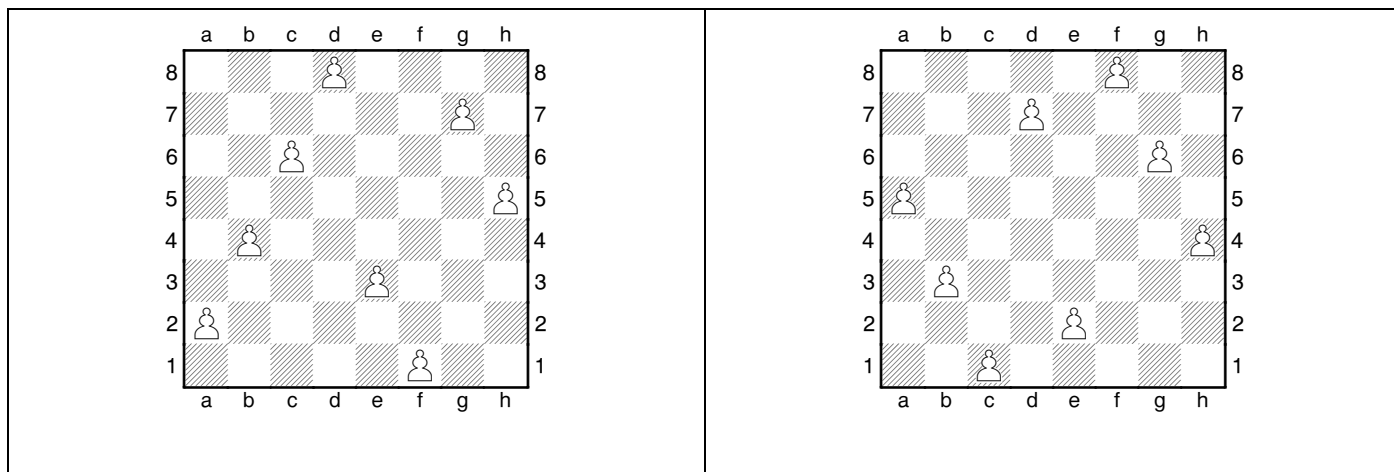


The aim of this puzzle is to place the eight officers (pawns or counters) on the board so that there are no two officers on the same rank, file or diagonal. (This is sometimes also called the EIGHT QUEENS PUZZLE.)

This is best used as a team building activity in the classroom. It's easy to place seven according to the rules, but eight is a lot harder. Pupils can try it for themselves at <http://www.chessheroes.uk/minichess/8queens.html>: drag the pieces onto the board.

Pupils usually get the idea of placing the pieces a knight's move away, even if they haven't yet learnt the knight move. This is a very good way of trying to solve the puzzle, but if you start on, say, a1 and b3, it's not going to work. Only two of the 12 possible solutions use the corner square.

Here are the two most intuitive solutions:



Outcomes:

Generic skills: teamwork, problem solving, patience, thoroughness, carefulness, double checking your work

Chess knowledge: the queen move (indirectly), even more indirectly, the knight move (distance between some of the pieces)

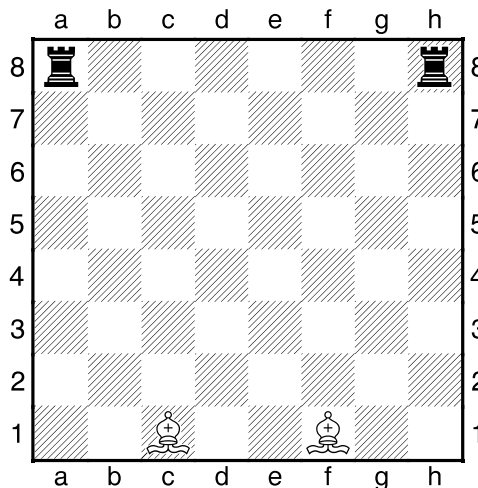
Chess skills: chessboard familiarisation and visualisation

ROOKS AND BISHOPS

Protochess demonstration game

Prior knowledge: rook & bishop moves: can be taught at start of lesson

Equipment: chessboards and pieces for each pair of pupils



Start by introducing, if they are not already known, the rook (vertical/horizontal) and bishop (diagonal) moves.

The players take it in turns to move, with White, as always in chess, making the first move.

The first player to make a capture wins the game.

It's a good idea to restrict the game to a certain length of time (5 minutes?) or a certain number of moves (10 moves each?) and declare any unfinished games drawn.

A few things to note about this game:

- Black could win at once by moving a rook to a1 or h1.
- White can lose at once by moving a bishop to a3, a6, h3 or h6.
- White can also lose by moving a bishop to c4 or f4.
- Black can lose by placing both rooks on the same diagonal.
- With best play it's always a draw, but it's much easier to play the rooks.

Outcomes:

Generic skills: impulse control, concentration, focus, hand/eye/brain coordination, learning from mistakes, accepting victory and defeat

Chess knowledge: the rook and bishop moves and captures, understanding that rooks are stronger than bishops.

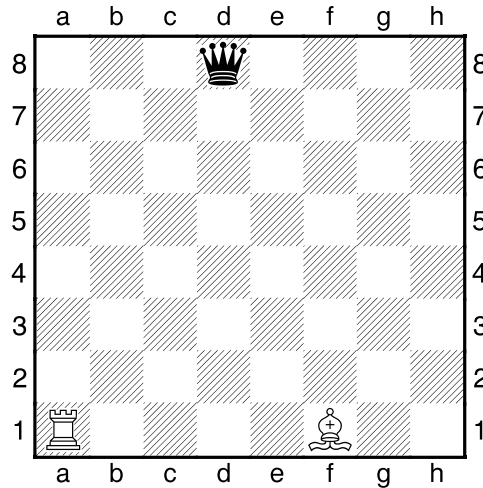
Chess skills: fluency at moving rooks and bishops, seeing attacks, looking for captures, learning about double attacks.

ROOK, BISHOP AND QUEEN

Protochess demonstration game

Prior knowledge: rook, bishop and queen moves: queen move can be taught at start of lesson

Equipment: chessboards and pieces for each pair of pupils



Start by introducing, if it is not already known, the queen (vertical/horizontal/diagonal) move.

The players take it in turns to move, with White, as always in chess, making the first move.

The first player to make a capture wins the game.

It's a good idea to restrict the game to a certain length of time (5 minutes?) or a certain number of moves (10 moves each?) and declare any unfinished games drawn.

A few things to note about this game:

- A queen can attack a rook safely along a diagonal.
- A queen can attack a bishop safely along a rank or file.
- So if White moved the bishop to c4, the black queen could move to d4, attacking both pieces.
- And if White moved the bishop to h3, the black queen could move to h8, attacking both pieces.
- With best play it's always a draw, but it's easier to play the queen.

Variant: you only win by playing a safe capture: a capture of an undefended piece.

Outcomes:

Generic skills: impulse control, concentration, focus, hand/eye/brain coordination, learning from mistakes, accepting victory and defeat

Chess knowledge: the queen move and capture, understanding the concept of double threats (forks).

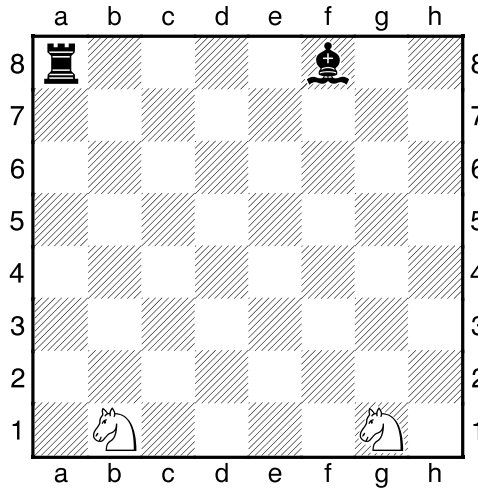
Chess skills: fluency at moving queens, rooks and bishops, seeing attacks, looking for captures, learning about double attacks.

ROOK, BISHOP AND KNIGHTS

Protochess demonstration game

Prior knowledge: rook, bishop and knight moves: knight move can be taught at start of lesson

Equipment: chessboards and pieces for each pair of pupils



Start by introducing, if it is not already known, the knight move (to the opposite corner of a 3x2 rectangle, can jump over anything in the way).

The players take it in turns to move, with White, as always in chess, making the first move.

The first player to make a capture wins the game.

It's a good idea to restrict the game to a certain length of time (5 minutes?) or a certain number of moves (10 moves each?) and declare any unfinished games drawn.

A few things to note about this game:

- The knights have to avoid the rook's rank and file, and the bishop's diagonals.
- The rook and bishop have to keep away from the knights.
- With best play it's always a draw, but it's easier to play the rook and bishop.

Outcomes:

Generic skills: impulse control, concentration, focus, hand/eye/brain coordination, learning from mistakes, accepting victory and defeat

Chess knowledge: the knight move and capture.

Chess skills: fluency at moving rooks, bishops and knights, seeing attacks, looking for captures, learning about double attacks.

THE KNIGHT TOUR

Protochess puzzle

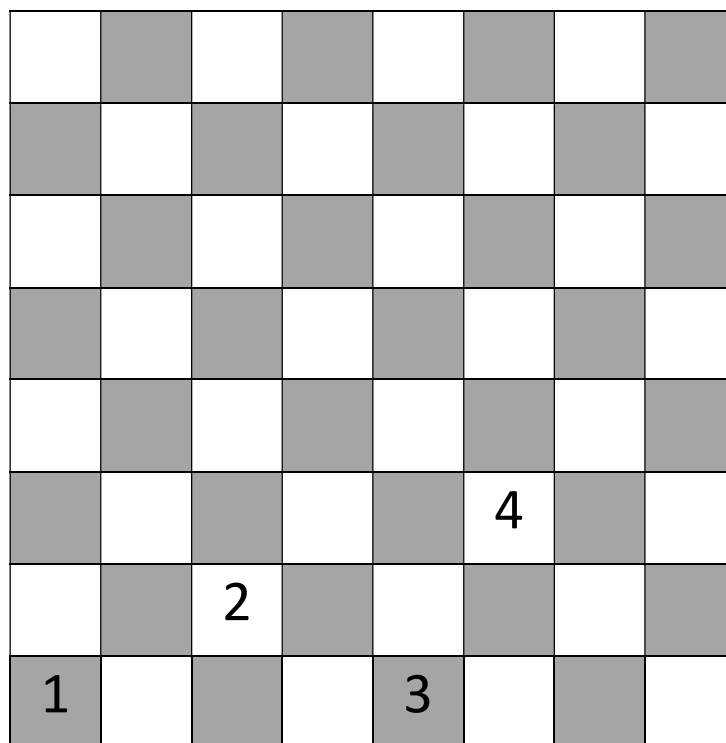
Prior knowledge: the chessboard

Equipment: smartboard, demonstration board or boards for each group of children

The knight is one of the hardest pieces to learn. Because of its specific nature it's suitable for a number of maths-related knight activities.

It moves to the opposite corner of a 2x3 rectangle, and can jump over pieces of either colour in doing so. It captures the same way as it moves. For example, a knight on a1 can move to either b3 or c2. You'll see that a knight on a light square always moves to a dark square, and a knight on a dark square always moves to a light square.

In this activity you have to attempt to complete a KNIGHT TOUR. In a KNIGHT TOUR the knight tries to visit every square on the chessboard, but is not allowed to visit any square more than once.



Here's how you might start. See how far you can get before running out of moves. Completing the tour is possible, but very hard unless you know how.

There are a couple of websites where you can practise this online:

<https://www.brainbashers.com/knight.asp>

<http://www.maths-resources.com/knights/>

Visit <http://chesskids.org.uk/newcourse/ck3l15.htm> for a lesson about the KNIGHT MOVE.

Outcomes:

Generic skills: concentration, looking ahead, planning, problem solving skills

Chess knowledge: the knight move

Chess skills: chessboard vision, fluency in moving knights

KNIGHT JOURNEYS


Protochess activity

Prior knowledge: the chessboard, the knight move

Equipment: smartboard, demonstration board, boards printed on paper for each group of children

In this activity you have to work out the shortest routes for knight to get from one square to another.

Place a knight on any square on the chessboard. Then work out how many moves it will take for the knight to reach every other square on the board.

2		2					
	2		2				
2	1			2			
		1	2				
		2		2			

Here's how you'd start with the knight on the a1 square.

You might split the class into teams and see which team is quickest at completing the task correctly.

What do you notice about the patterns made by the numbers? How do the patterns differ if you start the knight on a centre square (e4, for example) instead of a corner square?

Visit <http://chesskids.org.uk/newcourse/ck3l17.htm> for a lesson about KNIGHT JOURNEYS.

Outcomes:

Generic skills: concentration, looking ahead, planning, problem solving skills

Chess knowledge: planning knight journeys

Chess skills: chessboard vision, fluency in moving knights

SQUARE CONTROL

Protochess activity

Prior knowledge: the chessboard, the moves of the pieces (rook, bishop, knight, queen: king if you want)

Equipment: smartboard, demonstration board, boards printed on paper for each group of children

In this activity you start with a printed chessboard. Take a piece (you can choose rook, bishop, queen, king or knight). Different groups might want to work with different pieces.

Place your piece on any square and then write in that square the number of possible moves for that piece on an otherwise empty board. You might see a pattern emerging which will help you complete the grid more quickly.

3	4	6					
2	3	4					

Here's how you would start if you're producing the knight grid.

You might split the class into teams and see which team is quickest at completing the task correctly.

What do you notice about the patterns for each piece?

What does this tell you about which pieces are most powerful? What does this tell you about on which squares each piece might be most powerful? Why do you think the rooks start in the corners?

Outcomes:

Generic skills: concentration, thoroughness

Chess knowledge: reinforcing the moves of the pieces, the relative values of the pieces, the importance of the centre

Chess skills: visualisation of piece moves

KNIGHT CAPTURES

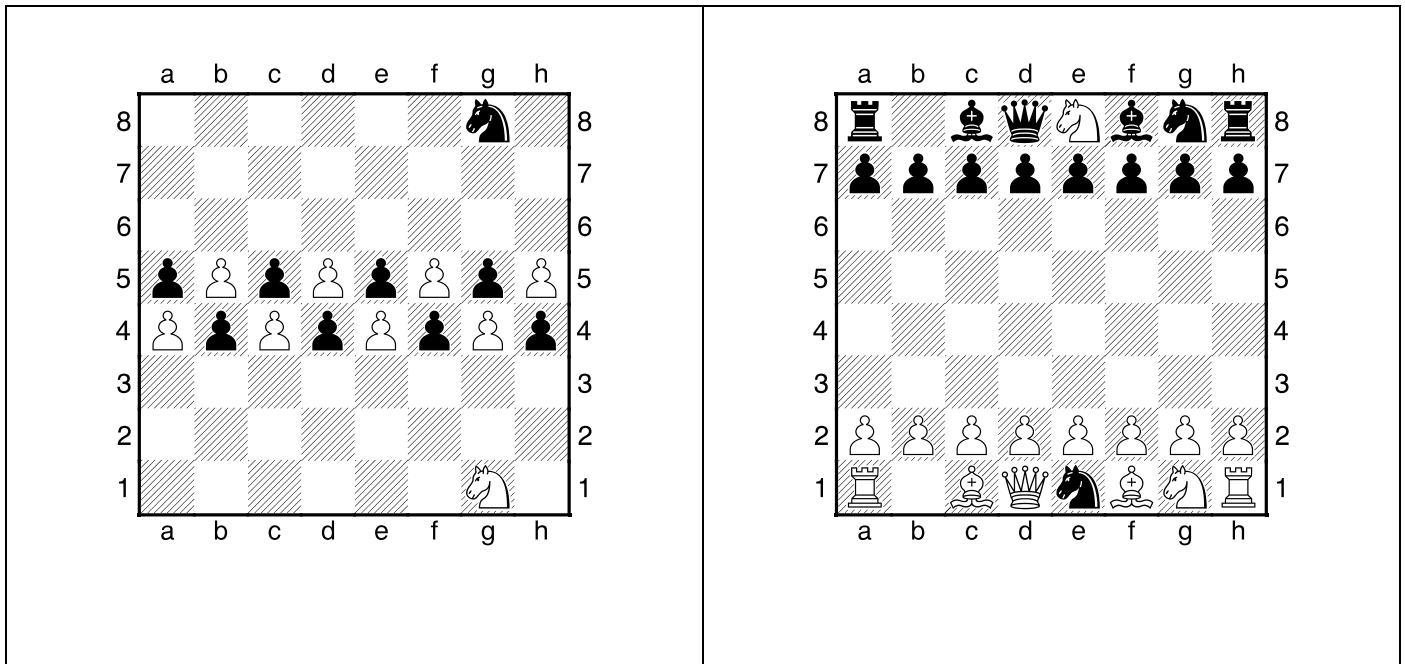
Protochess demonstration game

Prior knowledge: the knight move

Equipment: chess boards and pieces (or counters) for each pair of players

This game reinforces the knight move and capture.

Here, on your left, is the starting position.



Only the knights move, and they are not allowed to capture each other. The winner is the first player to capture all the pawns of the opposite colour.

Variant: each player has two knights, the white knights starting on b1 and g1, and the black knights on b8 and g8.

On the right is a harder variation of the same idea. Only the knights on e8 and e1 are allowed to move. Again, the winner is the first to capture all the opponent's pieces. You could, if you wanted, replace the other pieces with counters.

To make it fair, play two games, taking it in turns to play White.

Outcomes:

Generic skills: concentration, looking ahead, planning, problem solving skills

Chess knowledge: reinforcing knight move and capture

Chess skills: chessboard vision, fluency in moving knights

QUEEN AGAINST KNIGHT

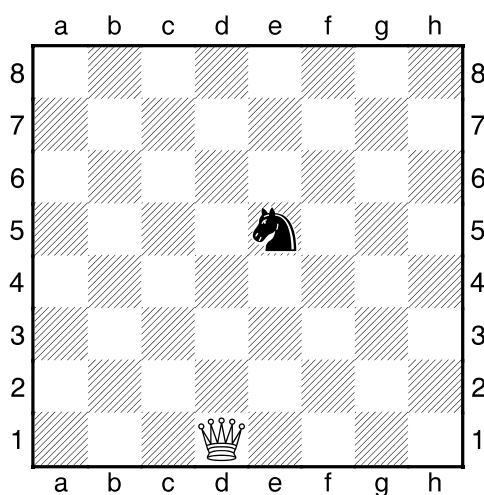
Protochess demonstration game

Prior knowledge: the queen and knight move

Equipment: chess boards and pieces for each pair of players

This game involves a queen trying to trap a knight.

Here is the starting position.



White, as always, moves first. The aim is to trap the knight: to reach a position where the queen is attacking the knight, and the knight has no safe squares to move to.

With good play White can achieve this in a few moves, but, if you play random moves it will take some time.

A good way to present this game is as a class lesson, with the teacher playing the knight and the pupils suggesting moves for the queen.

If you want to play this as a game between two players you'll have to decide whether you can take a move back if you move a piece where it can be captured.

Outcomes:

Generic skills: concentration, looking ahead, planning, problem solving skills

Chess knowledge: reinforcement of queen and knight moves

Chess skills: understanding square control, the importance of the centre

QUEEN AND ROOK AGAINST BISHOP

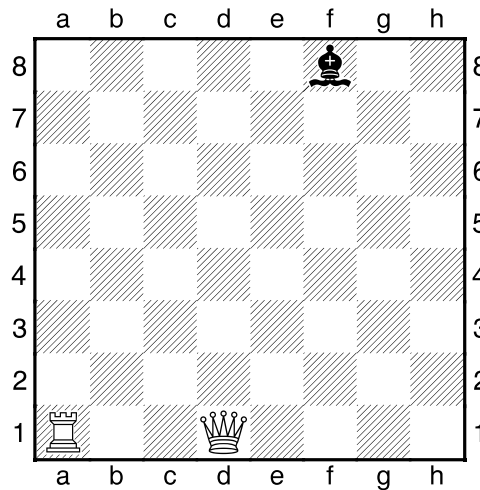
Protochess demonstration game

Prior knowledge: the rook, bishop and queen moves

Equipment: chess boards and pieces for each pair of players

This game involves a queen and rook trying to trap a bishop.

Here is the starting position.



White, as always, moves first. Perhaps surprisingly, this is much harder than a queen trapping a knight.

In order to trap the bishop you need to reach a position where the bishop can capture one of your pieces.

A good way to present this game is as a class lesson, with the teacher playing the bishop and the pupils suggesting moves for the queen and rook.

If you want to play this as a game between two players you'll have to decide whether you can take a move back if you move a piece where it can be captured.

Outcomes:

Generic skills: concentration, looking ahead, planning, problem solving skills

Chess knowledge: reinforcement of queen, rook and bishop moves

Chess skills: understanding square control

BACK TO THE START

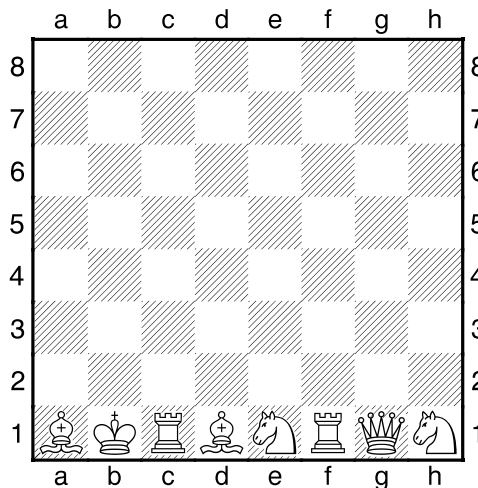
Protochess demonstration game

Prior knowledge: the moves and starting positions of the pieces

Equipment: chess boards and pieces for each pair of players or group

This game reinforces the moves of the pieces (except pawns) and the starting position.

You start by arranging the rooks, bishops, knights, queen and king in such a way that no piece is on its starting position and the two bishops are on opposite colour squares. There are many possible starting positions, such as the one in the diagram below.



There are several ways to play this:

- As a whole class activity – work out the quickest route
- As a team activity – which team can work out the quickest route first? Write down the moves if you know how to do so
- As a paired game: the players take it in turns: the player who uses fewer moves wins
- As a paired game: set up the white and black pieces in the same way. The players take it in turns, and are only allowed to use their own half of the board. The player who reaches the starting position first wins.

Outcomes:

Generic skills: concentration, looking ahead, planning, problem solving skills

Chess knowledge: reinforcement of the moves of the pieces: the starting position for a full game

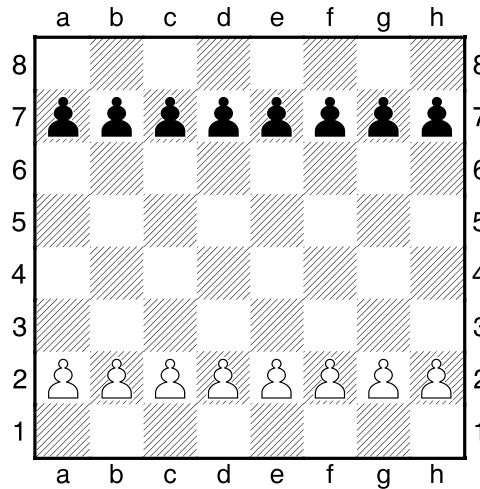
Chess skills: working out piece journeys

THE PAWN MOVE

Prechess activity

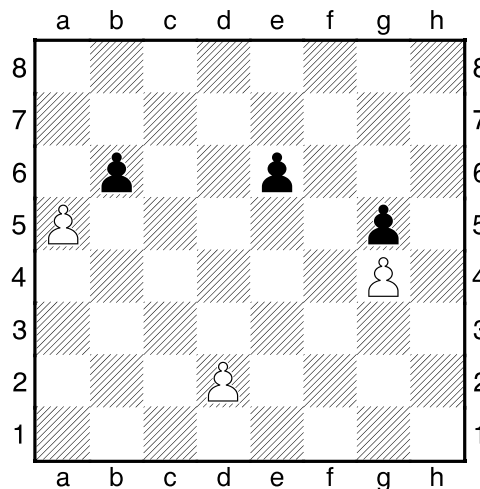
Equipment: smartboard or demonstration board

Prior knowledge: none



Here are the PAWNS at the start of the game. Each side has eight of them.

The PAWN moves ONE SQUARE FORWARD as long as that square is empty. On its first move, it may also move TWO SQUARES FORWARD as long as both squares are empty. The PAWN may also CAPTURE a piece one square diagonally in front of it. In chess you capture by removing the enemy piece from the board, and replacing it with your piece. (Not the same as draughts, where you capture by jumping over an enemy piece.)



In this position the pawns on g4 and g5 cannot move. The white pawn on d2 can move either to d3 or to d4. The black pawn on e6 can only move to e5. The white pawn on a5 could CAPTURE the black pawn on b6 or move to a6. Likewise, the black pawn on b6 could CAPTURE the white pawn on a5 or move to b5.

You'll find an online lesson on the pawn move here: <http://chesskids.org.uk/newcourse/ck3l3a.htm>

Outcomes:

Generic skills: concentration, memory

Chess knowledge: the pawn move

Chess skills: none

THE EN PASSANT RULE

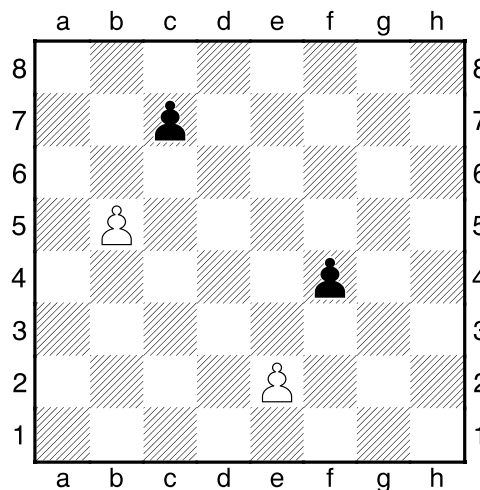
Prechess activity

Prior knowledge: the pawn move

Equipment: each group will need a chess board and eight pieces (for example, counters or pawns from a chess set)

This is the hardest chess rule for children to understand.

You can play without it if you want, but children who want to play 'big chess' will need to know it. So you might want to introduce it now, because it's much more likely to arise in minigames with pawns than in 'big chess'.



To make this capture you have to have a pawn which has already moved three squares forward (so it's on the rank numbered 5 if you're white, or 4 if you're black).

If your opponent moves a pawn on the NEXT FILE TWO SQUARES you can capture it as if it moved one square.

In this position, if White moves the pawn from e2 to e4, Black can, BUT ONLY ON THIS MOVE, capture *en passant*. The white pawn is removed from the board and the black pawn moves to the e3 square.

If it's Black's move, and the pawn on c7 moves to c5, then White can, BUT ONLY ON THIS MOVE, capture *en passant*. The black pawn is removed from the board and the white pawn moves to the c6 square.

Children will usually forget this or get confused and make the capture at the wrong time. You'll need to repeat it on a regular basis for it to sink in.

It might help them to remember if they think about *en passant* being French for 'in passing'.

You'll find an online lesson on the *en passant* capture here: <http://chesskids.org.uk/newcourse/ck3l4a.htm>

Outcomes:

Generic skills: concentration, memory

Chess knowledge: the en passant pawn capture

Chess skills: none

CAPTURE THE FLAG PAWN GAMES: INTRODUCTION

Prechess demonstration games

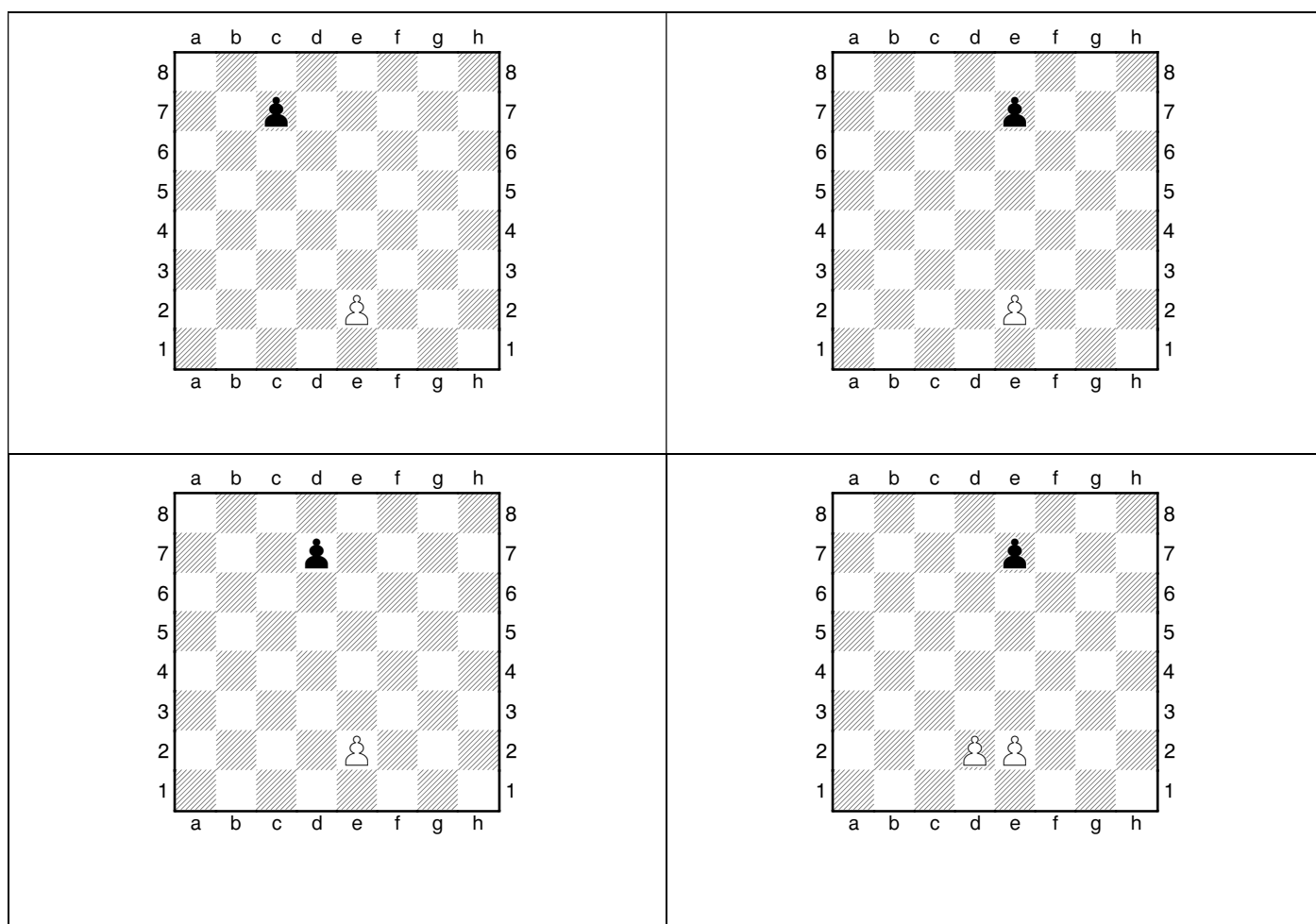
Prior knowledge: the pawn move

Equipment: each group will need a chess board and pawns or two sets of different coloured counters

CAPTURE THE FLAG rules apply to a type of minichess game without kings. There are THREE ways to win:

1. Get a pawn to the end of the board safely
2. Capture all your opponent's pieces
3. Reach a position where your opponent cannot make a move (note that in 'big chess' and minigames with kings this is STALEMATE: a draw: in some prechess games there are advantages in varying this rule)

It's a standard convention of chess that in all games White starts. The players then take it in turns to move.



Consider each of these positions in turn. Would you rather be White or Black? What would your winning strategy be? You can play some of them here: <http://chesskids.org.uk/newcourse/sincomb.htm> and some harder games here: <http://chesskids.org.uk/newcourse/doubcomb.htm>.

Answers: Top left: White wins by moving two squares. Top right: Black wins by copying White. Bottom left: Black wins by doing the opposite to White. Bottom right: White wins with any first move – but sometimes you have to be careful later on.

Outcomes:

Generic skills: thinking ahead, considering opponent's move, making decisions, pattern recognition

Chess knowledge: none

Chess skills: gaining fluency at playing pawn moves

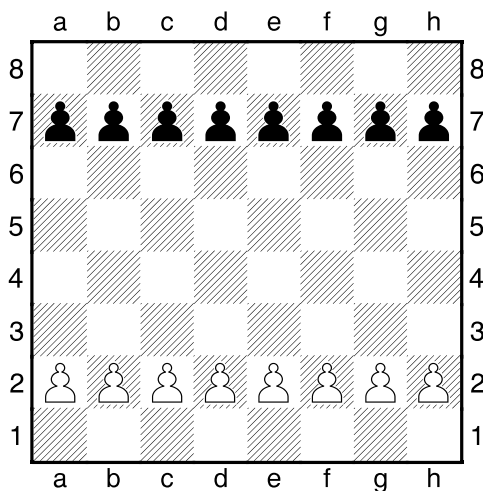
CAPTURE THE FLAG PAWN GAME

Prechess competitive game

Prior knowledge: the pawn move

Equipment: each pair of players will need a chess board and pawns or two sets of different coloured counters

The full competitive game starts with this position:



As the game is short, you could play two games, swapping colours after the first game.

Standard chess scoring: 1 point for a win, 0 points for a loss. A draw is not possible in this game. (You can also play that if the player to move has no moves you count the pawns, in which case a draw would score $\frac{1}{2}$.)

For younger players you could start with just the four centre pawns each. Then move onto six pawns each (omitting the pawns on the a and h-files).

This is an important minichess game: children enjoy playing it and the games don't last long. At the same time, some of the principles will be very useful for those children who move on to play 'big chess'.

The teacher should ensure that children are thinking about their moves and trying to look ahead rather than just playing random moves and hoping for the best.

You can use a handicap system. A more experienced player might start without one of the centre pawns. For a game between teacher and pupil, the teacher might start without the pawns on the c and f files.

If you visit <http://www.chessheroes.uk/minichess/pawngame3.htm> you can play this game against the computer.

Outcomes:

Generic skills: concentration, forming plans, thinking ahead, considering opponent's move, making decisions, pattern recognition

Chess knowledge: important pawn ending knowledge: passed pawns, waiting moves, breakthroughs etc

Chess skills: chessboard vision, gaining fluency at looking ahead

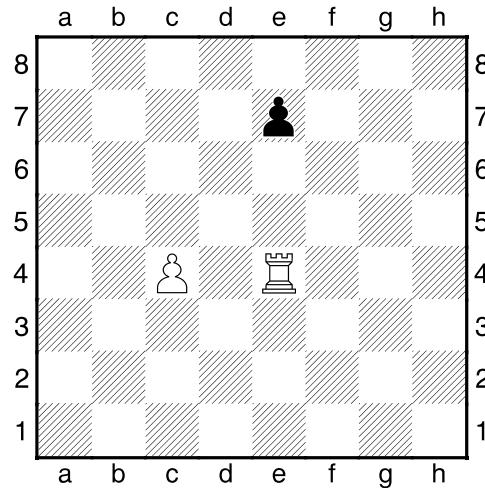
CAPTURE THE FLAG ROOK GAME

Prechess demonstration games

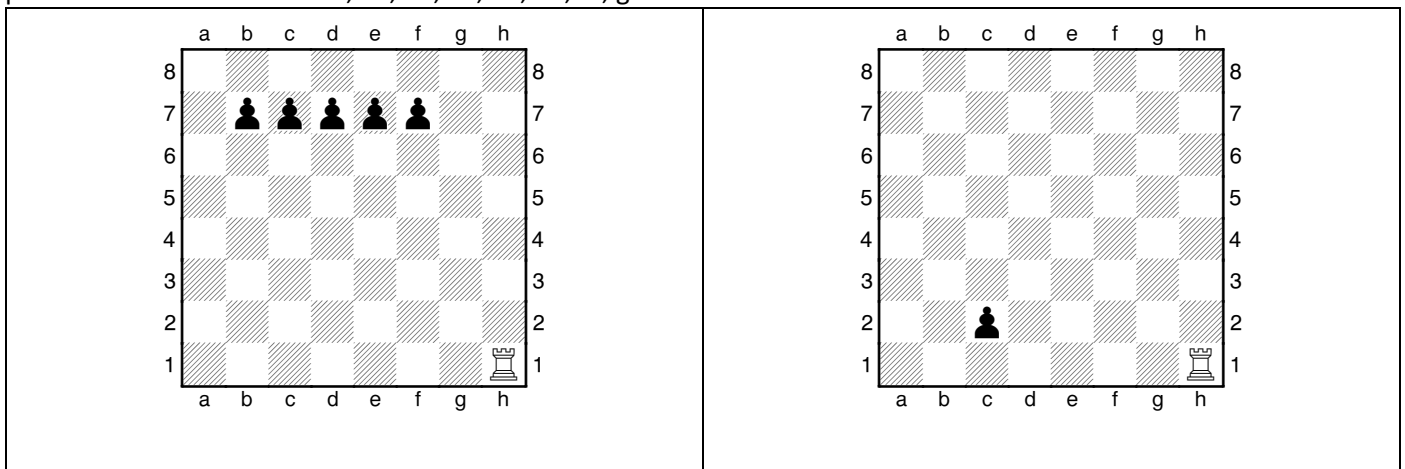
Prior knowledge: the pawn move: this game also introduces the rook move

Equipment: each pair of players will need a chess board and pieces or two sets of different coloured counters

First, if this hasn't yet been learnt elsewhere, introduce the rook move.



The ROOK (this, not CASTLE, is the correct name) moves horizontally and vertically as far as it likes unless it is impeded by another piece. It captures the same way that it moves. In this position the rook can CAPTURE the black pawn. It can also move to e1, e2, e3, e5, e6, d4, f4, g4 or h4.



On the left is the starting position of the CAPTURE THE FLAG ROOK GAME.

White wins by capturing all the black pawns. Black wins by getting a pawn to the end of the board SAFELY or by capturing the white rook. On the right, if it's Black's move, the black pawn will reach the end but White will be able to CAPTURE it and win the game. If it's White's move, moving to c1 will win as Black has no moves. Moving to g1, f1, e1 or a1 will also win. Moving to b1 or d1 will lose: Black will CAPTURE the rook and reach the end safely. Moving up the h-file will also lose as Black will then promote safely. Try varying the game by starting with Black having four or six pawns, or with the pawns further up the board.

You can play this game against the computer at <http://www.chessheroes.uk/minichess/rc2.htm>.

Outcomes:

Generic skills: concentration, forming plans, thinking ahead, considering opponent's move, making decisions, pattern recognition

Chess knowledge: the rook move

Chess skills: chessboard vision, gaining fluency at looking ahead

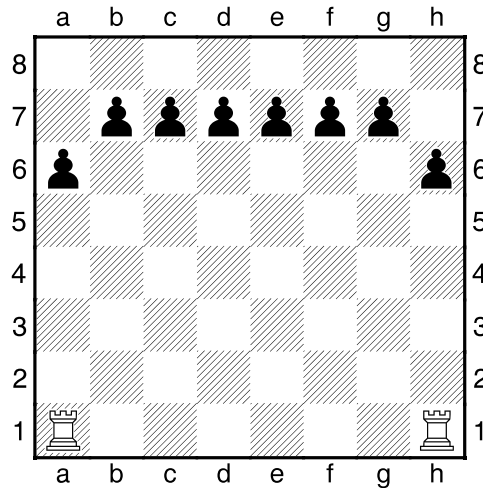
CAPTURE THE FLAG TWO ROOKS GAME

Prechess demonstration game

Prior knowledge: the pawn move, the rook move

Equipment: each pair of players will need a chess board and pieces or two sets of different coloured counters

If you want to play a longer game you can play two rooks against eight pawns, starting from this position.



Variants: try playing with the pawns further advanced. Let the pupils choose the starting positions (as long as it's not possible for a rook to capture a pawn on the first move).

You can play this game against the computer at <http://www.chessheroes.uk/minichess/rc4.htm>.

Outcomes:

Generic skills: concentration, forming plans, thinking ahead, considering opponent's move, making decisions, pattern recognition

Chess knowledge: reinforcing the rook and pawn moves

Chess skills: chessboard vision, gaining fluency at looking ahead

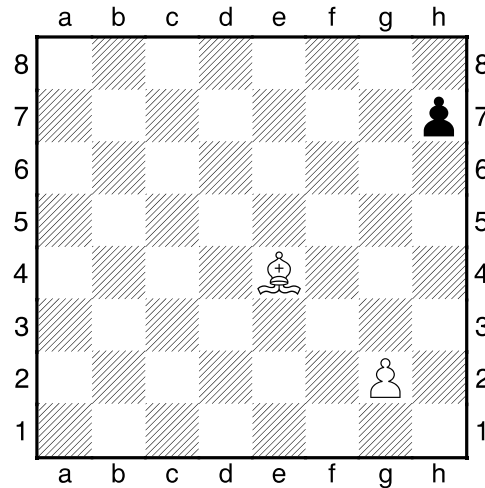
CAPTURE THE FLAG BISHOP GAME

Prechess demonstration game

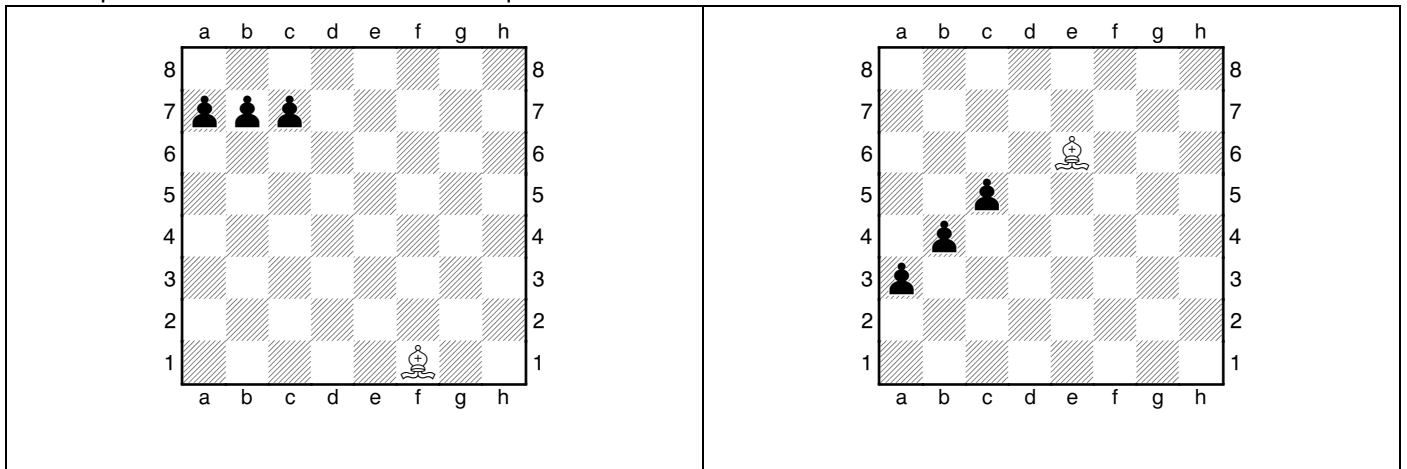
Prior knowledge: the pawn move: this game also introduces the bishop move

Equipment: each pair of players will need a chess board and pieces or two sets of different coloured counters

First, if this hasn't yet been learnt elsewhere, introduce the bishop move.



The BISHOP moves diagonally as far as it likes unless it is impeded by another piece. It captures the same way that it moves. In this position the bishop can CAPTURE the black pawn. It can also move to b1, c2, d3, d5, c6, b7, a8, f3, f5 or g6. Moving to g6 would be UNSAFE, though: the black pawn would be able to CAPTURE it. Note that a bishop on a white square can never move to a black square.



On the left is the starting position of the CAPTURE THE FLAG BISHOP GAME.

White wins by capturing all the black pawns. Black wins by getting a pawn to the end of the board SAFELY or by capturing the white bishop. On the right is a position Black must try to avoid. White will be able to capture all three black pawns on the next three moves. Try varying the game with Black starting with two or four pawns, or with the pawns on different squares.

You can play this game against the computer at <http://www.chessheroes.uk/minichess/bc2.htm>.

Outcomes:

Generic skills: concentration, forming plans, thinking ahead, considering opponent's move, making decisions, pattern recognition

Chess knowledge: the bishop move

Chess skills: chessboard vision, gaining fluency at looking ahead

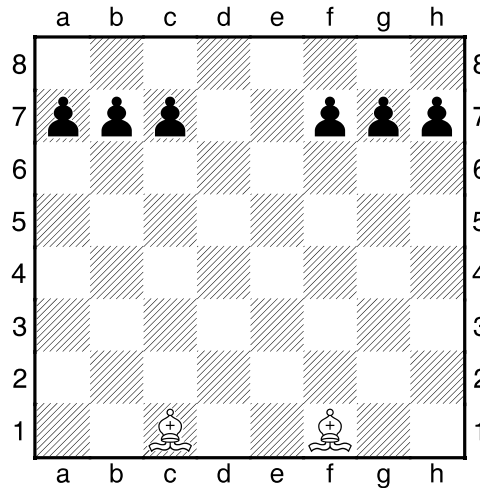
CAPTURE THE FLAG TWO BISHOPS GAME

Prechess demonstration game

Prior knowledge: the pawn move, the bishop move

Equipment: each pair of players will need a chess board and pieces or two sets of different coloured counters

If you want a longer game you can play the Two Bishops Game. Here's the starting position.



Variants: try playing with the pawns further advanced. Let the pupils choose the starting positions (as long as it's not possible for a bishop to capture a pawn on the first move).

You can play this game against the computer at <http://www.chessheroes.uk/minichess/bc4.htm>.

Outcomes:

Generic skills: concentration, forming plans, thinking ahead, considering opponent's move, making decisions, pattern recognition

Chess knowledge: the bishop move

Chess skills: chessboard vision, gaining fluency at looking ahead

KNIGHT AGAINST PAWNS

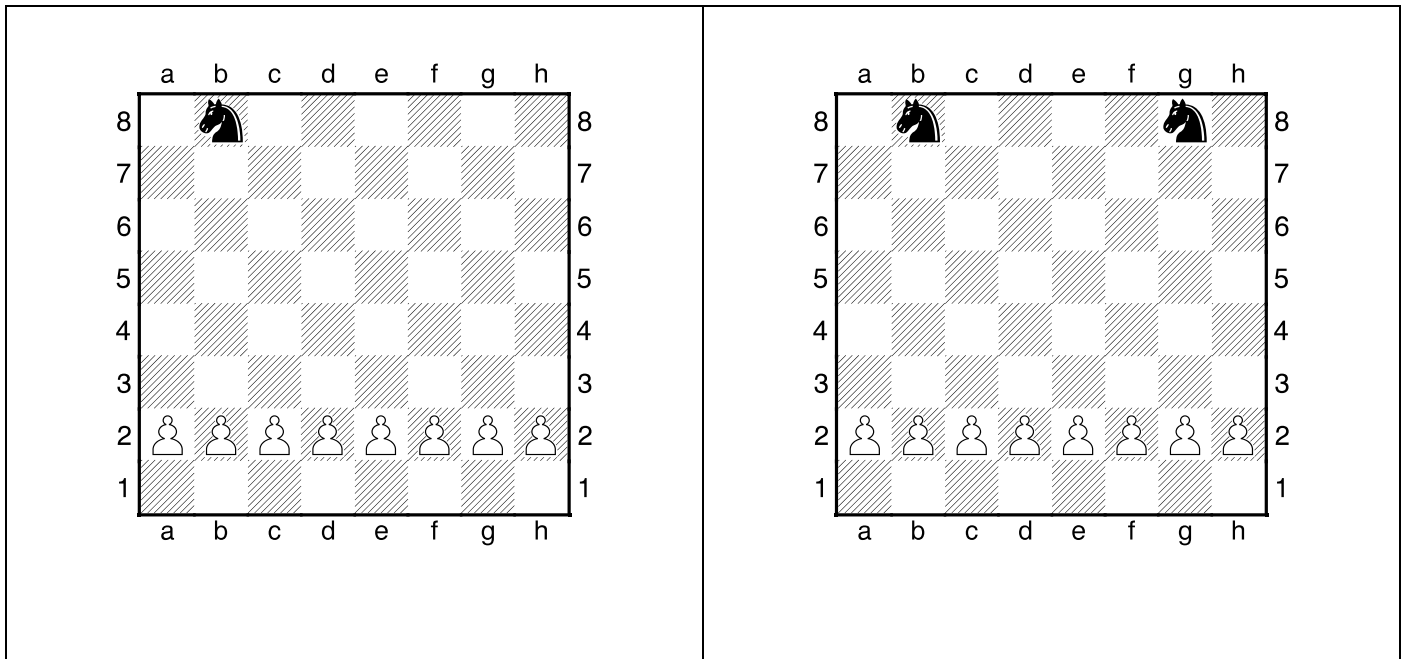
Prechess demonstration game

Prior knowledge: the knight and pawn moves

Equipment: chess boards and pieces (or counters) for each pair of players

This is a CAPTURE THE FLAG variant using knights.

Here, on your left, is the starting position.



White's aim is to get as many pawns to the end of the board as possible. You score a point every time you get a pawn to the end of the board. If you capture the black knight you automatically score a point for every pawn you have left.

Play two games, taking it in turns to play White. The winner is the player scoring more points.

Variant: Black has two knights, as in the position below. Here, if you capture one black knight the game continues. You score a point for each point you have left at the end if you capture both black knights.

Outcomes:

Generic skills: concentration, looking ahead, planning

Chess knowledge: knight and pawn moves

Chess skills: using knights to stop pawns

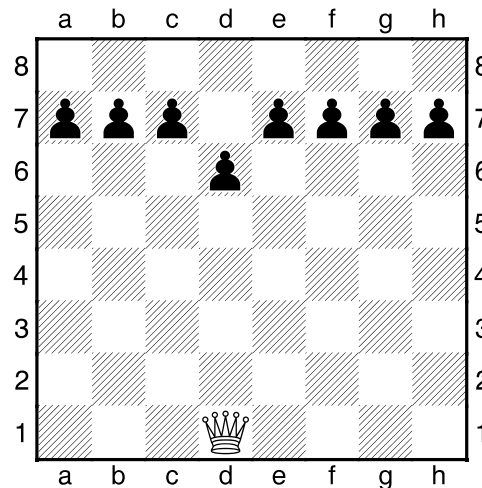
CAPTURE THE FLAG QUEEN GAME

Prechess demonstration game

Prior knowledge: the pawn, rook and bishop moves: this game also introduces the queen move

Equipment: each pair of players will need a chess board and pieces or two sets of different coloured counters

First, if this hasn't yet been learnt elsewhere, introduce the queen move. The rook and bishop moves should be learnt first. Then the queen move is easy: a queen can do whatever a rook can do plus whatever a bishop can do.



This is the starting position of the CAPTURE THE FLAG QUEEN GAME.

White wins by capturing all the black pawns. Black wins by getting a pawn to the end of the board SAFELY or by capturing the white queen.

This is a good time to introduce the idea of the FORK. First, we differentiate between an ATTACK and a THREAT. In the position about the white queen is ATTACKING the pawn on d6. It's not a THREAT, though, as the pawn is safely defended: White would lose at once by capturing this pawn on the first move.

White has several moves here which create TWO THREATS. For example, moving the queen to d5 THREATENS to CAPTURE on either b7 or f7.

You can also play this game with nine pawns, adding an extra pawn (borrowed from another set) on d7.

Alternatively, for pupils playing white against teachers, or less experienced players playing white against more experienced players, you might want to remove one or two black pawns.

You can play this game against the computer at <http://www.chessheroes.uk/minichess/qc3.htm>.

Outcomes:

Generic skills: concentration, forming plans, thinking ahead, considering opponent's move, making decisions, pattern recognition

Chess knowledge: the queen move, the fork

Chess skills: chessboard vision, gaining fluency at looking ahead and looking for forks

THE KING MOVE

Minichess activity

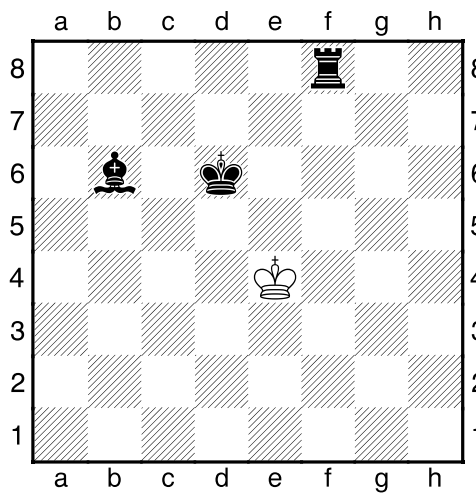
Prior knowledge: the rook move, the meaning of ATTACK

Equipment: smartboard or demonstration board

The king move looks easy. It just moves one square at a time in any direction: forwards, backwards, sideways or diagonally.

But there's one thing about the king move that makes it one of the hardest pieces to understand.

The king cannot move to, or stay, on a square which is ATTACKED by an enemy piece.



In this position the white king CANNOT move to f3, f4 or f5 because of the rook on f8. It CANNOT move to e3 or d4 because of the bishop on b6. It CANNOT move to d5 or e5 because of the king on d6. Note that TWO KINGS CAN NEVER STAND NEXT TO EACH OTHER.

The only square the king CAN move to is d3.

If you play a move that ATTACKS the enemy king this is a CHECK. You say the word CHECK to warn your opponent.

If it's BLACK'S move here, the rook could move to e8 saying CHECK. The white king could move to f3, f4, f5 or d3 in reply.

The black rook could also CHECK the white king by moving to f4. This wouldn't be a good move as the white king would be able to capture the rook. Moving the rook to e8 is SAFE: moving the rook to d4 is UNSAFE.

Visit <http://www.chessheroes.uk/minichess/quiz1.htm> for a quiz about checks.

Outcomes:

Generic skills: concentration, thoroughness, accuracy, pattern recognition

Chess knowledge: the king move, check

Chess skills: chessboard vision, looking at all possible ways to give check

CASTLING

Minichess activity

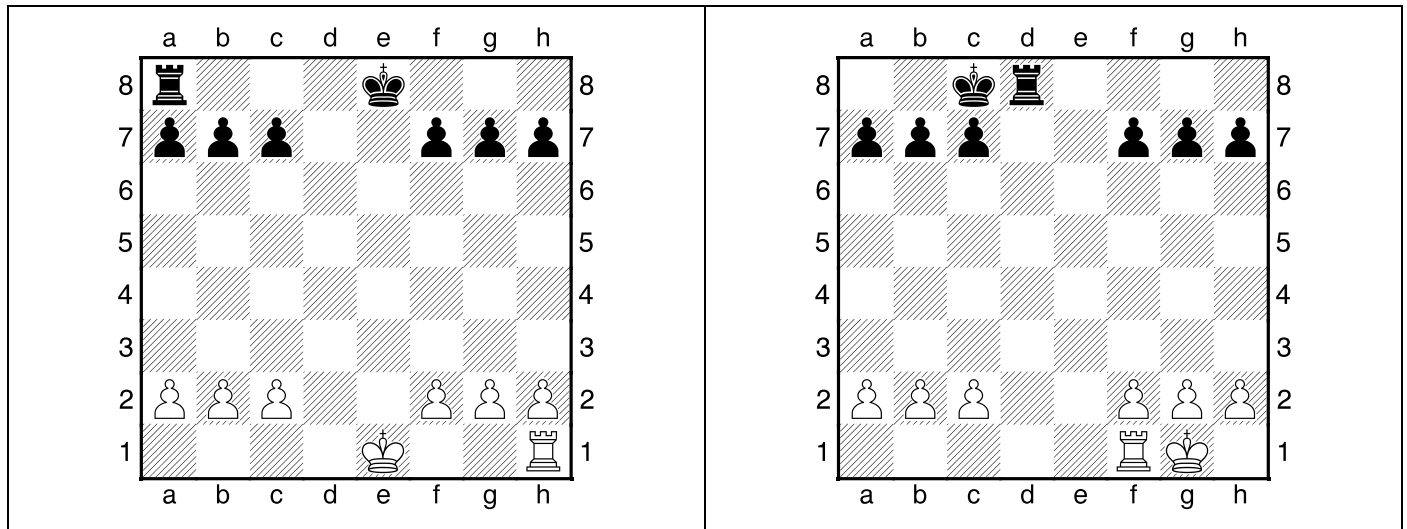
Prior knowledge: the king and rook moves, the meaning of CHECK

Equipment: smartboard or demonstration board

There are three 'eccentric' moves in chess: *en passant*, pawn promotion and castling. Before you can play a full game of chess you need to know all of them. Castling is particularly important: you'll learn that it's something you should usually aim to do early on in a game.

Castling is a double move with the king and a rook. You can only play it if neither the king nor the rook have previously moved in the game.

You move the king two squares towards the rook and then, in the same move, the rook jumps over the king and lands on the next square.



Suppose that, in the diagram on the left, neither player's king or rook has moved, so both players can still castle.

The diagram on the right shows the position after both players have castled. White's king moved from e1 to g1 and the rook jumped to f1. Black's king moved from e8 to c8 and the rook jumped to d8.

Note also:

- You cannot castle if you're in check (it doesn't matter if you've been in check as long as you didn't move your king)
- You cannot castle if it leaves your king in check (just as you can't play any move that leaves your king in check)
- You cannot castle if the square your king crosses is attacked by an enemy piece (this is the hard one to understand: if White had a rook on d1 Black wouldn't be allowed to castle, and if Black had a bishop on c4, White wouldn't be allowed to castle)

There's an online lesson on castling at <http://chesskids.org.uk/newcourse/ck3l23.htm>.

Outcomes:

Generic skills: long-term memory of castling rule

Chess knowledge: castling rule (may need repetition and reinforcement to remember and understand)

Chess skills: none

THE KING BATTLE

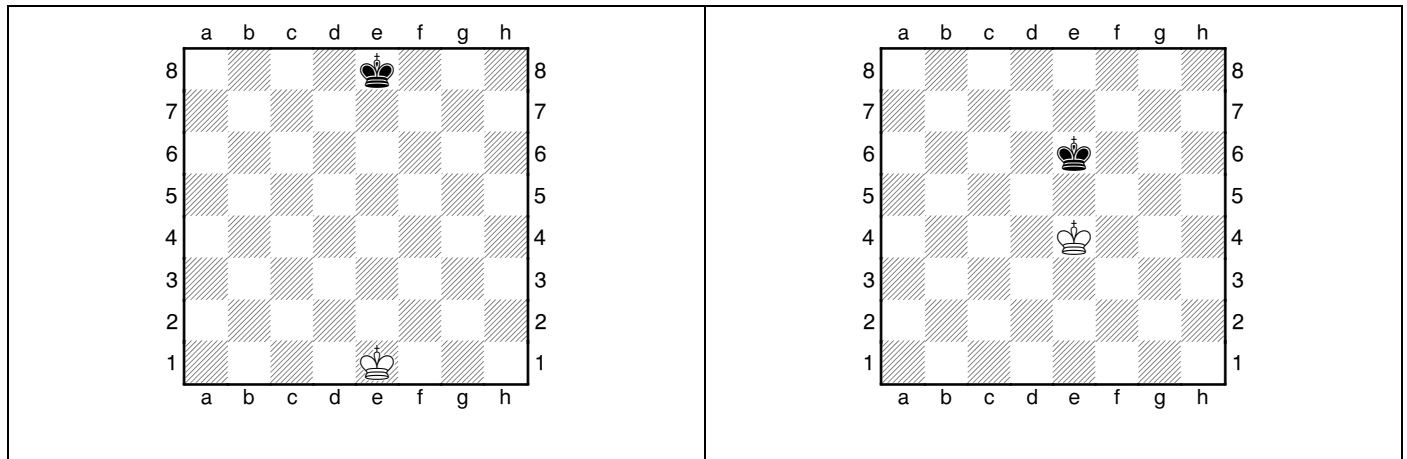
Minichess demonstration game

Prior knowledge: the king move

Equipment: chess boards and two kings (or counters) for each pair of players

This is a very simple game played with just two kings. It may be simple but it's not at all easy to play well.

You start from the position on the left:



The kings move one square at a time in any direction, but you can never play a move which leaves the two kings on adjacent squares.

White plays first. You can win the game if your king gets to any square on the back rank (White wins by getting to any square from a8 to h8, while Black wins by getting to any square from a1 to h1.) The game ends as a draw if neither player is able to make progress.

Consider the position on the right (you might want to demonstrate this in a lesson). If it's Black's move the king must give way, allowing the white king to advance. If it's White's move it's not possible to make progress as long as the black king follows the white king. In this type of position we say that the side NOT having the move has the **OPPOSITION**.

Variant: you only win if your king reaches a8 (White) or a1 (Black).

White can win the main game with best play, but the variant is drawn with best play.

Outcomes:

Generic skills: concentration, thoroughness, pattern recognition

Chess knowledge: reinforcing the king move

Chess skills: understanding the opposition (this will come in very useful in 'big chess')

GETTING OUT OF CHECK

Minichess activity

Prior knowledge: the rook, bishop and queen moves, the king move, check

Equipment: smartboard or demonstration board

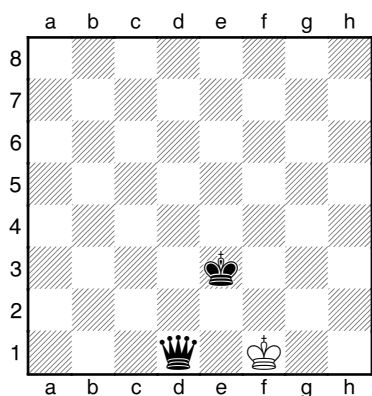
You are not allowed to play a move which LEAVES YOUR KING IN CHECK. So if you're in CHECK you have to do something about it.

There are THREE WAYS you can GET OUT OF CHECK. You can remember them using the letters A, B and C.

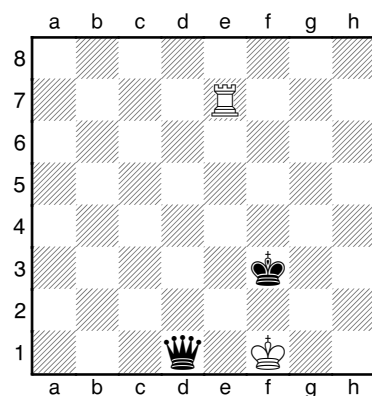
A: AVOID or MOVE AWAY. You can move your king to a safe square.

B: BLOCK. If your king is in CHECK from a QUEEN, ROOK or BISHOP you can BLOCK by putting a piece in the way.

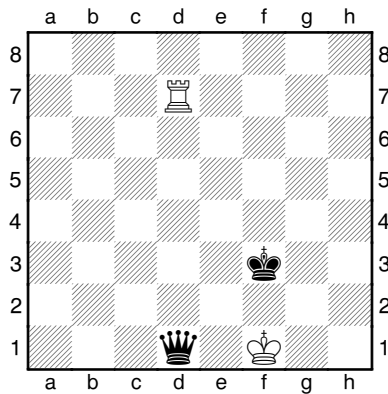
C: CAPTURE. You can CAPTURE the piece that's giving CHECK, either with your king or with another piece.



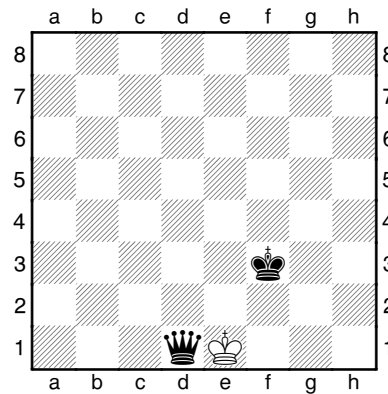
White can AVOID the CHECK by moving AWAY to g2, the only safe square.



White can BLOCK the CHECK by moving the rook from e7 to e1.



White can CAPTURE the queen using the rook on d7.



The white king can CAPTURE the black queen.

Visit <http://www.chessheroes.uk/minichess/quiz2.htm> for a quiz about getting out of check.

Outcomes:

Generic skills: concentration, thoroughness, accuracy

Chess knowledge: checkmate and how to find it

Chess skills: chessboard vision, looking at all possible ways to get out of check

FINDING CHECKMATES

Minichess activity

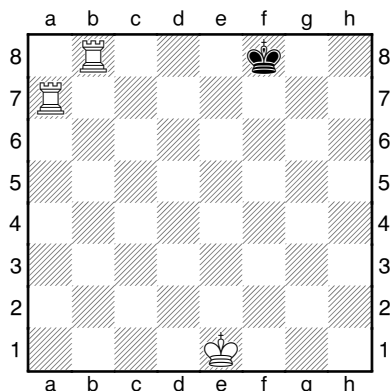
Prior knowledge: the rook, bishop and queen moves, the king move, check, the three ways to get out of check

Equipment: smartboard or demonstration board

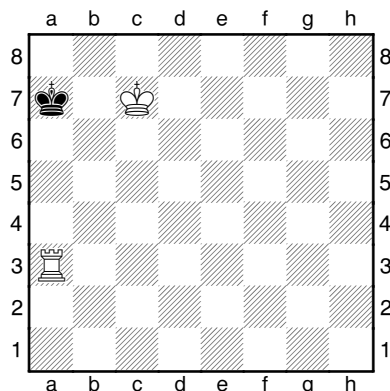
If you CHECK your opponent's king and there's no way to get out of CHECK, this is called CHECKMATE.

This is how you win a real game of chess. You never capture your opponent's king. The game stops when you deliver CHECKMATE.

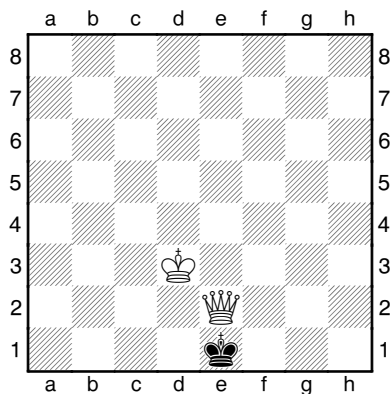
Here are some simple CHECKMATES.



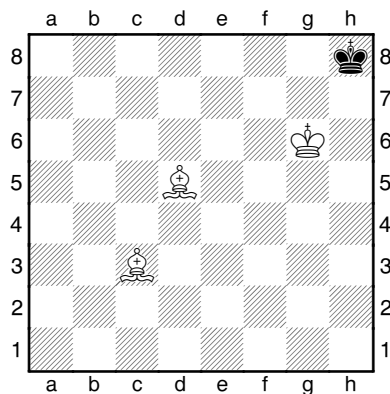
One rook CHECKS the king: the other rook stops him escaping.



This time the white king stops the black king escaping. Don't forget two kings cannot stand next to each other.



The queen surrounds the black king and is defended by the white king.



The white bishops and king work together to trap the black king.

Visit <http://www.chessheroes.uk/minichess/quiz3.htm> for a CHECKMATE quiz.

Visit <http://www.chesskids.org.uk/newcourse/ck3l20.htm> for a lesson about CHECK and CHECKMATE. You'll need to know the knight and pawn moves as well for this lesson.

Outcomes:

Generic skills: concentration, thoroughness, accuracy, scientific method

Chess knowledge: the three ways to get out of check

Chess skills: chessboard vision, looking at all possible checks and seeing if there's an escape

STALEMATE

Minichess activity

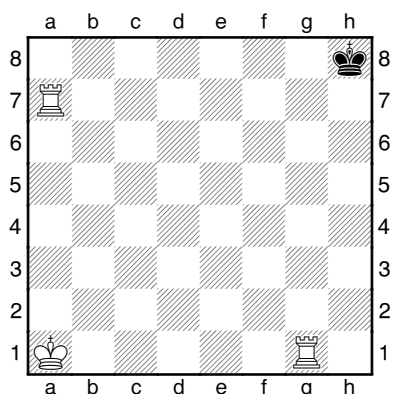
Prior knowledge: the rook, bishop and queen moves, the king move, check

Equipment: smartboard or demonstration board

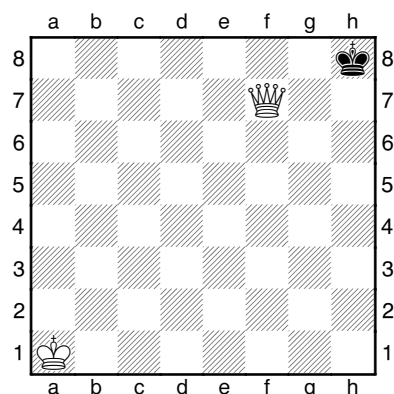
If you are not in CHECK and you cannot move any of your pieces this is STALEMATE. In CAPTURE THE FLAG games you lose if you cannot move anything. But in a real game of chess STALEMATE is a DRAW.

A real game of chess might end in CHECKMATE or STALEMATE. It might also end in a position where it is not possible for either player to get CHECKMATE. This is also a draw.

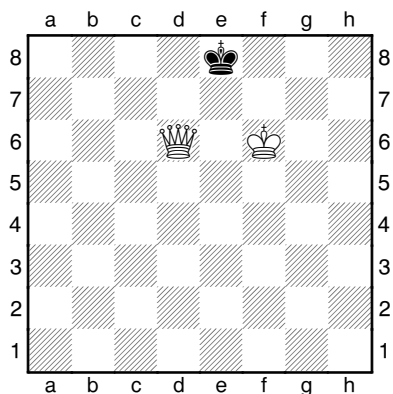
Here are some STALEMATES with queens and rooks. You'll need to know these before you learn more about how to get CHECKMATE. In each position it's Black's move.



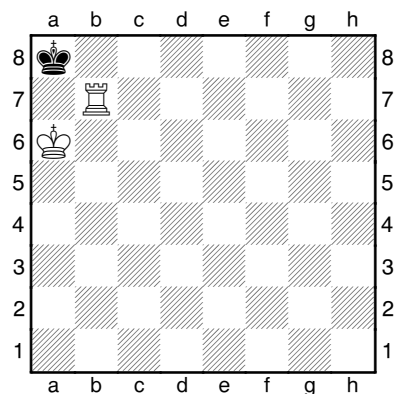
The black king has no moves: look at the white rooks.



If the king is in the corner and the queen a knight's move away it's stalemate.



This is another very common stalemate with king and queen against king.



Here's a stalemate with king and rook against king. The rook could be anywhere from b1 to b7.

Visit <http://chesskids.org.uk/newcourse/ck3l21.htm> for a lesson about STALEMATE.

Outcomes:

Generic skills: thoroughness, accuracy

Chess knowledge: stalemate

Chess skills: chessboard vision, learning common stalemate positions

TWO ROOKS CHECKMATE

Minichess demonstration game

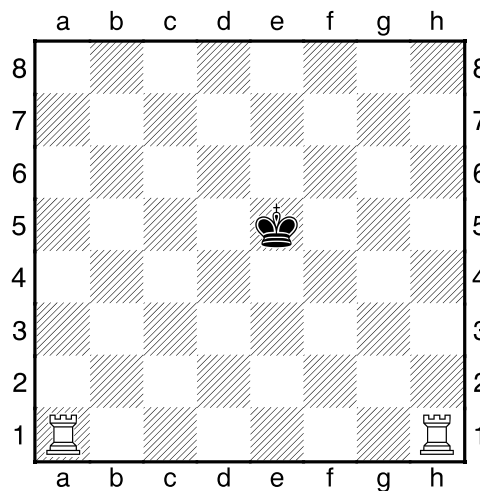
Prior knowledge: the chessboard, the king and rook moves, check, checkmate, stalemate

Equipment: smartboard, demonstration board, chess sets & boards for each pair of children if possible

In this game you're learning how to force CHECKMATE using two rooks.

You might want to start by asking the class to take two white rooks and a black king and try to set up checkmate and stalemate positions.

You could also look at this lesson: <http://chesskids.org.uk/newcourse/ck3l31.htm> which explains the technique for forcing the king to the edge of the board one row at a time.



Split the class into pairs and see if they can get CHECKMATE with White from this position.

The players should take it in turns to play White and Black.

You can make it into a competition if you like. Count the number of moves played by White.

Method 1: White wins by getting CHECKMATE within 10 moves. If White STALEMATES the black king, Black captures one of the rooks, or Black survives 10 moves, Black wins.

Method 2: the player getting CHECKMATE in the fewest number of moves is the winner.

You'll find an online lesson about the two rooks checkmate at <http://chesskids.org.uk/newcourse/ck3l31.htm>.

You can play this ending against the computer at <http://chessheroes.uk/minichess/playrr.html> (you'll find a white king on the board as well but try not to use it).

Outcomes:

Generic skills: concentration, planning, looking ahead

Chess knowledge: how to checkmate with two rooks

Chess skills: fluency in checkmating with two rooks, co-operation between rooks

KING AND QUEEN CHECKMATE

Minichess demonstration game

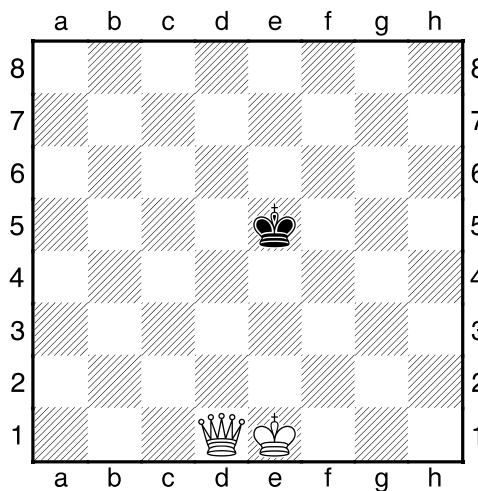
Prior knowledge: the chessboard, the king and queen moves, check, checkmate, stalemate

Equipment: smartboard, demonstration board, chess sets & boards for each pair of children if possible

In this game you're learning how to force CHECKMATE using a king and queen.

You might want to start by asking the class to take a white king and queen and a black king and try to set up checkmate and stalemate positions.

You could also look at this lesson: <http://chesskids.org.uk/level2/ncl4l7.htm> which explains the technique for CHECKMATING with a king and queen.



Split the class into pairs and see if they can get CHECKMATE with White from this position.

The players should take it in turns to play White and Black.

You can make it into a competition if you like. Count the number of moves played by White.

Method 1: White wins by getting CHECKMATE within 15 moves. If White STALEMATES the black king, Black captures the white queen, or Black survives 15 moves, Black wins.

Method 2: the player getting CHECKMATE in the fewest number of moves is the winner.

You can find an online lesson about the king and queen checkmate at <http://chesskids.org.uk/level2/ncl4l7.htm>.

You can play this ending against the computer at <http://chessheroes.uk/minichess/playq.html>

Outcomes:

Generic skills: concentration, planning, looking ahead

Chess knowledge: how to checkmate with king and queen

Chess skills: fluency in checkmating with king and queen, co-operation between king and queen

KING AND ROOK CHECKMATE

Minichess demonstration game

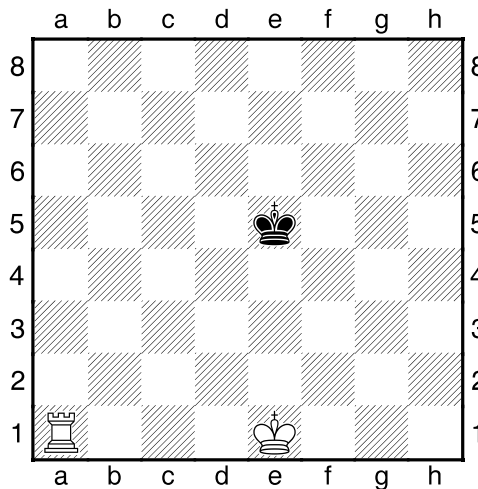
Prior knowledge: the chessboard, the king and rook moves, check, checkmate, stalemate

Equipment: smartboard, demonstration board, chess sets & boards for each pair of children if possible

In this game you're learning how to force CHECKMATE using a king and rook.

You might want to start by asking the class to take a white king and rook and a black king and try to set up checkmate and stalemate positions.

You could also look at this lesson: <http://chesskids.org.uk/level2/ncl5l7.htm> which explains the technique for CHECKMATING with a king and rook.



Split the class into pairs and see if they can get CHECKMATE with White from this position.

The players should take it in turns to play White and Black.

You can make it into a competition if you like. Count the number of moves played by White.

Method 1: White wins by getting CHECKMATE within 20 moves. If White STALEMATES the black king, Black captures the white queen, or Black survives 20 moves, Black wins.

Method 2: the player getting CHECKMATE in the fewest number of moves is the winner.

You can find an online lesson about the king and rook checkmate at <http://chesskids.org.uk/level2/ncl5l7.htm>.

You can play this ending against the computer at <http://chessheroes.uk/minichess/playr.html>

Outcomes:

Generic skills: concentration, planning, thinking ahead

Chess knowledge: how to checkmate with king and rook

Chess skills: fluency in checkmating with king and rook, co-operation between king and rook

KING AND PAWN AGAINST KING

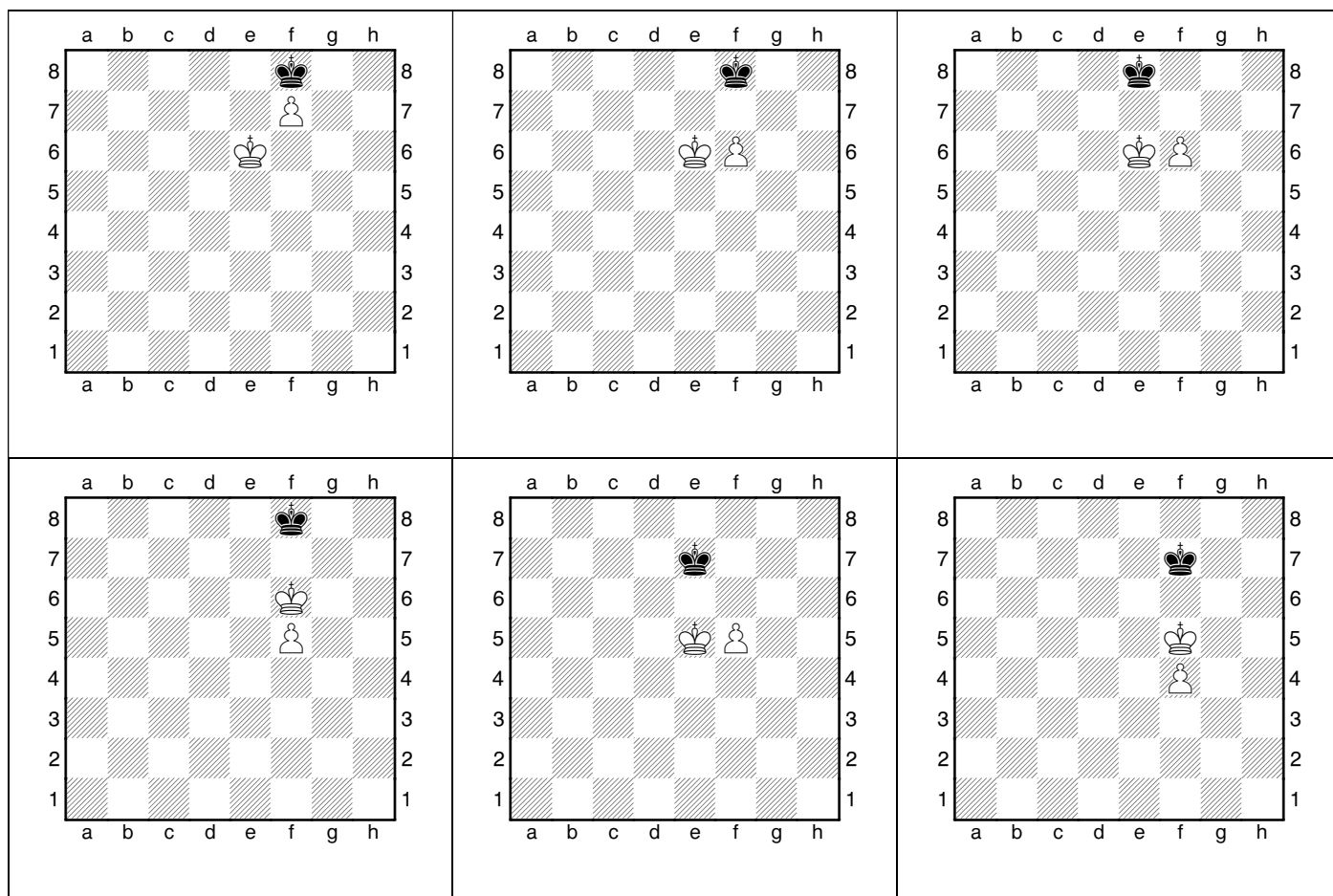
Minichess puzzles

Prior knowledge: the chessboard, the king, pawn and queen moves, the king and queen checkmate

Equipment: smartboard, demonstration board, chess sets & boards for each pair of children if possible

Positions with king and pawn against king are very important if you want to become a good chess player.

We have a series of positions which can be analysed as a whole class activity, as group investigations or as games played between pairs of pupils.



If you want, you can stop if White promotes the pawn safely. Extension: play on until checkmate/stalemate to practise the king and queen checkmate.

You'll find an online lesson about these endings at <http://chesskids.org.uk/level2/ncl6l7.htm>.

You can play these ending against the computer at <http://chessheroes.uk/minichess/playkpp1.html>.

Outcomes:

Generic skills: concentration, thoroughness, thinking ahead

Chess knowledge: basic endings with king and pawn against king

Chess skills: fluency in playing king and pawn endings: transference to analogous positions

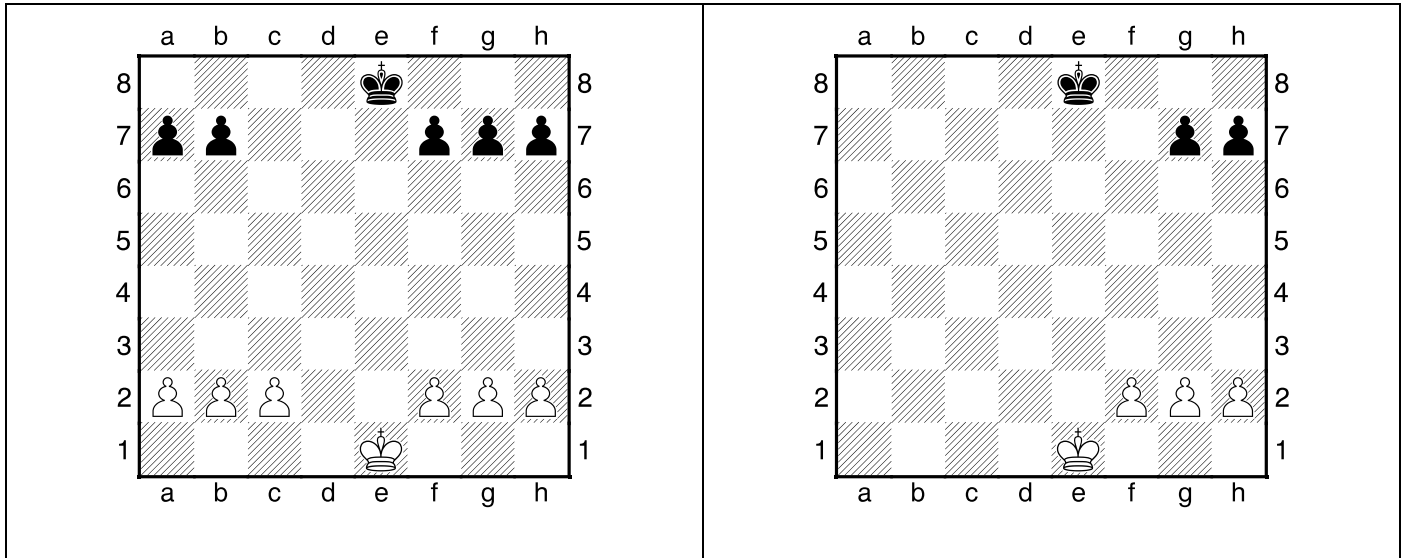
WINNING WITH AN EXTRA PAWN

Minichess demonstration games

Prior knowledge: the chessboard, the king, queen and pawn moves, check, checkmate, stalemate

Equipment: smartboard, demonstration board, chess sets & boards for each pair of children if possible

These games take pawn endings further, providing an explanation of how you can win with just one extra pawn along with opportunities for practising this vital chess skill.



These demonstration games show how you can win a game with an extra pawn.

You could perhaps demonstrate perfect play yourself first (see *Chess Endings for Heroes* for examples) and then ask your pupils to play the positions out themselves. Encourage them to play on until checkmate so that they get practice in finishing off games efficiently.

If you want to make it easier, you could start with White having a two pawn advantage, removing the black pawn on f7.

The position on the left is relatively easy as long as you know the correct plan (bring your king up first, then advance your pawn majority). The position on the right is much harder and requires some expert knowledge to play well.

You might also want to encourage pupils to set up their own king and pawn ending positions and play them out for themselves.

Outcomes:

Generic skills: concentration, planning, thinking ahead, creativity in setting up new positions

Chess knowledge: pawn endings, understanding that an extra pawn will often be enough to win

Chess skills: increased proficiency at playing endings, reinforcement of king and queen checkmate

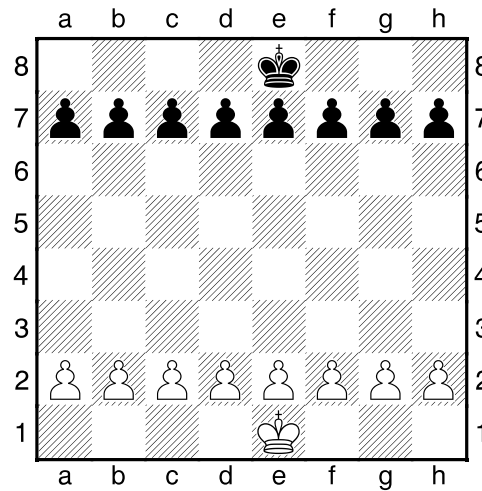
KING AND PAWN GAMES

Minichess games

Prior knowledge: the chessboard, the moves of all the pieces, check, checkmate, stalemate, king and queen checkmate

Equipment: chess sets & boards for each pair of children

This might be used as the first step towards playing a complete game. Both players start with a king and eight pawns, and the game continues until checkmate, stalemate or draw with king against king.



You might want to use this as a gateway into playing a full game of chess. It will help a lot if children are proficient at the king and queen checkmate before attempting this, so that they'll be able to conclude their games efficiently.

As always, White starts and the players take it in turns to move.

As with the 'Capture the Flag' pawn game, you might want to make more experienced players start without one of their pawns against less experienced opponents.

This game is very suitable for matches between classes, houses, year groups or whatever you prefer.

Games will take longer so you'll probably need to allow 15 minutes or so for completion. You might need to adjudicate unfinished games, perhaps by awarding a win if one player is two or more pawns ahead, and otherwise declaring the game a draw.

Once this game has been mastered you can gradually add other pieces to the board until it becomes a complete game.

Try it with kings, rooks and pawns, with kings, bishops, knights and pawns, or with kings, queens and pawns.

Outcomes:

Generic skills: concentration, planning, thinking ahead, taking care

Chess knowledge: pawn endings, endings with other pieces

Chess skills: increased proficiency at playing endings, reinforcement of king and queen checkmate

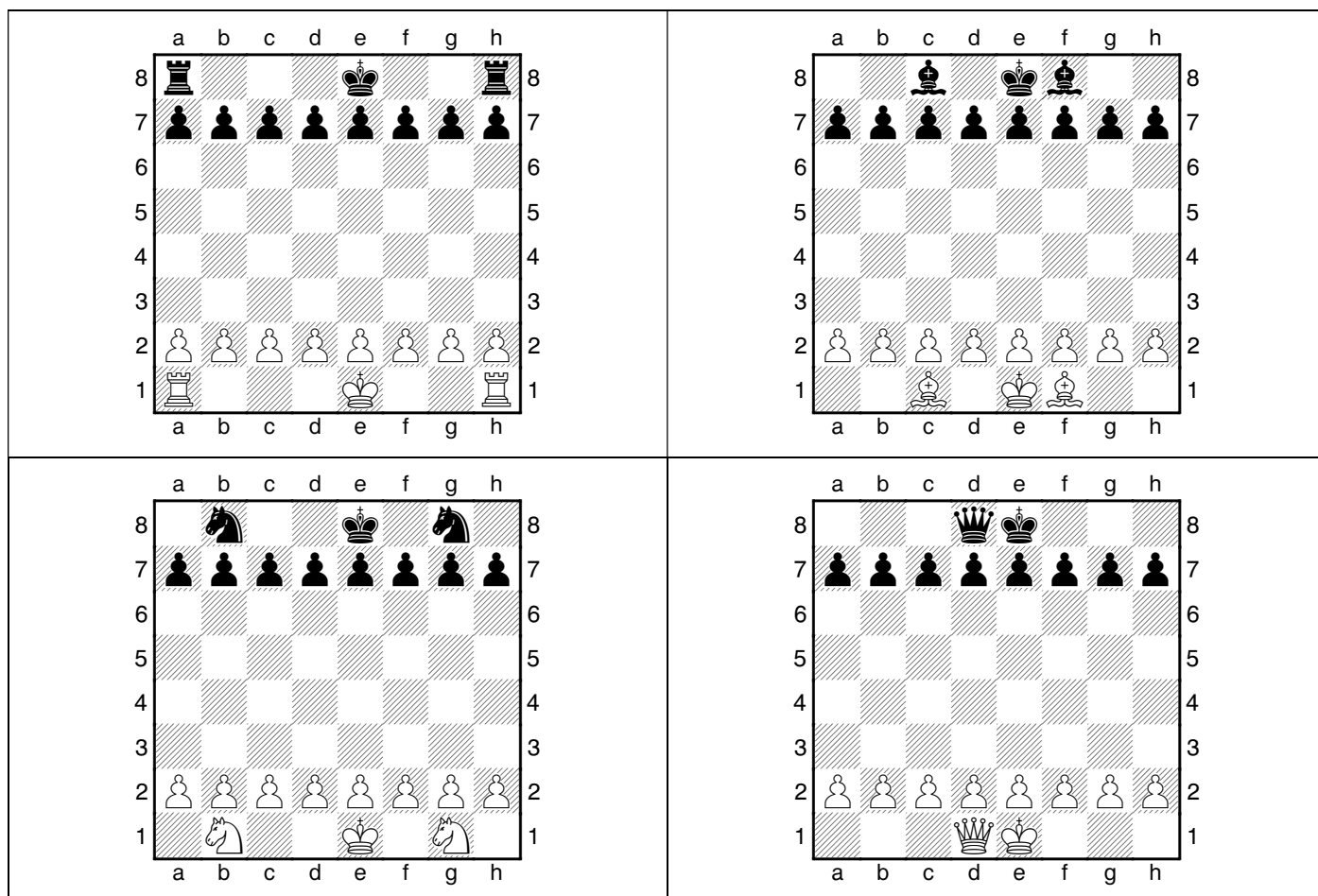
ENDINGS WITH OTHER PIECES

Minichess games

Prior knowledge: the chessboard, the moves of all the pieces, check, checkmate, stalemate, king and queen checkmate

Equipment: chess sets & boards for each pair of children

This takes pupils further by giving them the opportunity to play endings with other pieces as well as pawns. You can make up your own positions, with different pieces on different squares, or encourage your pupils to make some up themselves as well.



These are basic positions you might use for various reasons. You can, if you want, play the rook, bishop and knight positions with only one piece each, or with fewer pawns on the board for a shorter game. Again, these positions can be used for competitive play or as an opportunity to practise endgames.

You can also remove a black pawn (or one white and two black pawns) for demonstration games so that pupils can learn to win endings with extra pawns. Also try endings with rook against bishop or knight to see if pupils can win with the more powerful piece. The possibilities are endless.

You can also start with, for example, the rook ending and gradually add more pieces until you reach a full game of chess.

Outcomes:

Generic skills: concentration, planning, thinking ahead, creativity in setting up new positions

Chess knowledge: endings – and what it takes to win them

Chess skills: increased proficiency at playing all types of ending

ALL THE PIECES

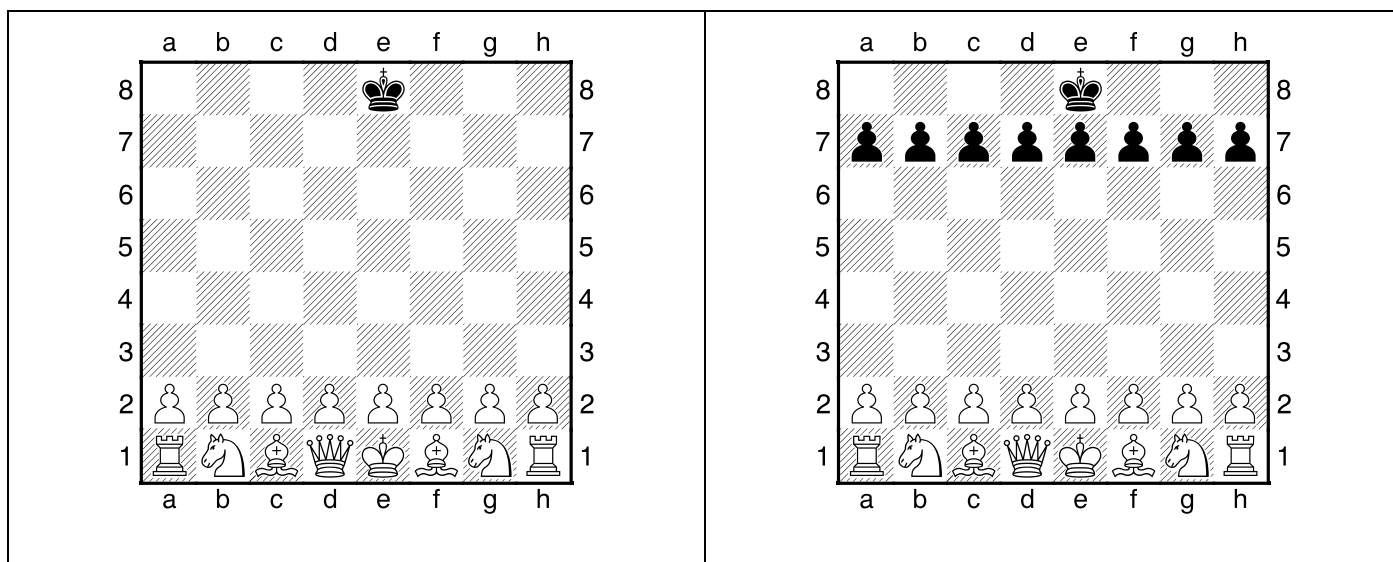
Minichess demonstration games

Prior knowledge: the chessboard, the moves of all the pieces, check, checkmate, stalemate

Equipment: chess sets & boards for each pair of children

Another way to approach 'big chess' is to use positions where one side has a large advantage and see how quickly checkmate can be forced.

This helps pupils to understand the idea of pieces working together and helps them learn how to look for different types of checkmate.



The position on the left could be used as a class exercise. The class suggest moves for White while the tutor plays black. How many moves will it take for White to checkmate the black king? You have to be careful to avoid stalemate. Try it again with the black king on a different square if you want.

It could also be played competitively: the two players take it in turn to play White and the player who checkmates in the fewer number of moves wins.

The position on the right is a similar exercise, but this time the white pieces have to break through a pawn barrier to reach the black king.

You can add more black pieces or remove some white pieces if you want.

Outcomes:

Generic skills: concentration, planning, thinking ahead, creativity in setting up new positions

Chess knowledge: different types of checkmate, how pieces can work together, the importance of development (bringing out your pieces at the start of the game)

Chess skills: increased familiarity with different checkmating patterns, increased awareness of piece coordination, increased knowledge of how to develop pieces at the start of the game