Chess

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Chess Merit Badge

Carlisle Merit Badge College

- Do you have a completed Blue Card?
- Are you in the right class?
- Do you have a Workbook?

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Chess Merit Badge Requirements

1. Discuss with your merit badge counselor the history of the game of chess. Explain why it is considered a game of planning and strategy.

History of Chess

- **Origin in India as “Chaturanga” 600 A.D.**
  - Chaturanga meant “four-limbed”, which referred to the four parts of the army: Chariots, Horses, Elephants, and Foot soldiers, as well as pieces representing the ruler and his minister
- **Changes to piece moves in Europe by 1500 A.D.**
- **Ben Franklin and “The Morals of Chess”**
- **Development of tournaments**
- **Chess organizations**
- **World Championships**

History of Chess

Chess sets of unusual design gave an advantage to the player who was used to it. The Staunton design introduced in 1849 by Jacques of London became the standard required for competitive Chess games.

Chess Merit Badge Requirements

2. **Discuss with your merit badge counselor the following:**
   a. The benefits of playing chess, including developing critical thinking skills, concentration skills, and decision-making skills, and how these skills can help you in other areas of your life
   b. Sportsmanship and chess etiquette

Benefits of Chess

- Developing critical thinking skills
- Practicing concentration skills
- Improved decision-making skills
- *How would these skills help with other areas of your life?*

Your Brain on Chess

- Abstract Reasoning
- Concentration
- Critical Thinking
- Evaluation
- Pattern Recognition
- Problem Solving
- Strategic Planning
- Synthesis

Chess Etiquette

- **Like anything else, play by the rules and it is enjoyable for all**
- **Shake hands**
- **Be a good loser or winner**
- **Cell phone = banned**
- **Touch Move Rule**
  - If you touch a piece, and it can legally move, you have to move that piece.

Chess Merit Badge Requirements

3. **Demonstrate to your counselor that you know each of the following. Then, using Scouting's Teaching EDGE, teach the following to a Scout who does not know how to play chess:**
   a. The name of each chess piece
   b. How to set up the chessboard
   c. How each chess piece moves, including castling and *en passant* captures

EDGE Method

EDGE is used to teach concepts. The key to making EDGE work is to use it for all teaching opportunities. Make it a habit.

1. **Explain**—trainer *explains* how something is done.

2. **Demonstrate**—trainer *demonstrates* while explaining again.

3. **Guide**—learner tries the skill while the trainer *guides* him through it.

4. **Enable**—learner works on his own under the watchful eye of the trainer. The trainer's role in this step is to remove any obstacles to success, which *enables* the learner to succeed.

Chess Pieces

Pieces on the Board

White Diagram

Black Diagram

King Queen Bishop Knight Rook Pawn

Setting Up Chess Board

“White to the Right”
Put the White corner to the right side

If the board has letters, They should read A-H for the White player.

Setting Up the Pieces

Queen On Her Color

Check this before you start the game

Pieces in Alphabetical Order

Add the pieces in <u>Alphabetical Order</u> going out from the King & Queen

- **<u>Bishops</u>** next to K & Q
- **<u>Knights</u>** next to Bishops
- **<u>Rooks</u>** in the Corners

Add the Pawns in Front

Now the board is ready to play Chess!

Moving Rooks

Rooks move to vacant squares in a horizontal or vertical <u>straight line</u>

Rooks must stop before their own pieces, or they can capture a piece and occupy that square

Moving Bishops

Bishops move to vacant squares in a diagonal straight line

Bishops must stop before their own pieces, or they can capture a piece and occupy that square

Moving Knights

Knights move in an “L”, two squares in one direction and one square at a right angle

Knights jump any piece

Moving the Queen

The Queen combines the moves of the Rook and the Bishop. The Queen moves to vacant squares in a straight line

The Queen must stop before her own pieces, or she can capture a piece and occupy that square

Queen = Power

Moving the King

The King moves one square in any direction, but cannot stay in or move to a square under attack

The King may capture an unprotected piece

Castling is done with both the King and Rook in the same move

Moving Pawns

Pawns move forward, either one or two empty squares on their first move, and then only one empty square

Pawns only capture pieces diagonally

En Passant Capture

Pawns allowed to take an opponent's pawn "*en passant*"
(French "in passing")

When the opponent's pawn moves two squares, the pawn can capture as if the pawn only moved one square

MUST be done immediately (on the very next move), or the option to capture this way is lost

Pawn Promotion

When a Pawn reaches the final rank, it is exchanged (in the same turn) for a Queen, Rook, Bishop or Knight

a8=N is checkmate

a8=Q is stalemate

Chess Merit Badge Requirements

4. **Do the following:**
   d. Explain the four rules for castling.
   e. On a chessboard, demonstrate a “scholar’s mate” and a “fool’s mate.”
   f. Demonstrate on a chessboard four ways a chess game can end in a draw.

Two Quick Checkmates

- Fool’s Mate
- Scholar’s Mate

Fool’s Mate

The moves for Fool’s Mate are:

1. g4 e5
2. f3 Qh5# 0-1

White created pawn weaknesses and developed no pieces

Don’t do that!

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Scholar's Mate

- The moves for Scholar's Mate are:

  1. e4 e5
  2. Qh5 Nc6
  3. Bc4 Nf6
  4. Qxf7#

- 3. … g6 stops it !

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Rules for Castling

1. The King & Rook have <u>not yet moved</u>
2. All squares between the King & Rook are <u>empty</u>
3. The King is <u>not in check</u>
4. The King does <u>not move to or through check</u>

Checkmate & When to Resign

- Checkmate = King is threatened and no legal move to meet the threat
- A player can resign (still a loss) when their position is hopeless, saves time & shows they knew they lost

4 Ways to Draw a Game

1. By agreement
2. Repeating the same position three times, with the same person to move and the same possible moves
3. Stalemate: The player to move has no legal moves and is not in check
4. The 50-Move Rule: 50 moves without a check or a piece being captured

About Draws

To Request a Draw

1. You must be the player to move
2. Make your move
3. Offer a draw before touching the clock; the offer is considered on your time

If your opponent offers a draw, he often thinks he is losing

50-Move Draw Example

- The opposite-color Bishops can avoid each other, and avoid capture by the King forever
- This will be a draw eventually, if one is not offered and accepted
- Trying to win on time can be challenged by appeal to the director

Chess Merit Badge Requirements

4. **Do the following:**
   a. Demonstrate scorekeeping using the algebraic system of chess notation.

Naming the Squares

Squares are named by:

1. Letters **a** thru **h**, for files (vertical)
2. Numbers **1** thru **8**, for rows (horizontal)

Naming the Pieces

- K for King
- Q for Queen
- B for Bishop
- N for Knight
- R for Rook
- Pawns are not indicated by a letter, but just list the square the pawn moves to

Notation for Moves

- **The piece and the destination square are listed for the move of a piece**
  - Examples: **Be5** (Bishop to e5), **Nf6** (Knight to f6)
- **The destination square is listed for the move of a Pawn**
  - Examples: **c5** (Pawn to c5), **d4** (Pawn to d4)

Notation for Captures

- **An "x" is added between the (capturing) piece and the destination square**
- **Pawn captures list the "file" the Pawn moves from, an "x", and the destination square**
  - Examples: **exd5** (e-file pawn takes on d5)
  - Sometimes the "x" is left out ("**ed5**")
  - If unambiguous, even the number is left out (just "**ed**")

en passant Captures

To record an *en passant* capture, list:

1. The capturing Pawn's <u>departure file</u>,
2. an "x"
3. the location the capturing Pawn moves to (not where the captured Pawn is)
4. "e.p." for *en passant*

Examples: axb6 e.p., or cxb3 e.p.

For Ambiguous Moves

Sometimes, more than one of the same kind of piece can move to the same square

1. The file of departure (if they differ)
2. The rank of departure (if they differ), OR
3. The rank and file, if 3 of the same kind of piece can move there (after Pawn promotion)

Pawn Promotion

The piece chosen when the Pawn promotes, is written after the Pawn move

- Examples: **a1Q**, **g8Q**

Sometimes an "=" sign is used: a1=Q

Sometimes parentheses are used: a1(Q)

Castling

Kingside castling: 0-0

Queenside castling: 0-0-0

Check and Checkmate

A move that places the King in check has a "+" added at the end

- Examples: **Bb5+**, **Re8+**

Checkmate has a "#" added at the end

- Examples: **Qf7#**, **Nf2#**

End of the Game

"1-0" indicates White won

"0-1" indicates Black won

"½-½" indicates a Draw

Sometimes "White Resigns", or "Black Resigns" is used to indicate <u>how</u> a player won

Writing Down the Moves

Moves can be written in Columns, with a number and pair of moves:

1. e4 e5
2. Nf3 Nc6
3. Bb5 a6

Moves can be written in Text:

1. e4 e5 2. Nf3 Nc6 3. Bb5 a6

Chess Merit Badge Requirements

5. **Do the following:**
   a. Explain four of the following elements of chess strategy: exploiting weaknesses, force, king safety, pawn structure, space, tempo, time.
   b. Explain any five of these chess tactics: clearance sacrifice, decoy, discovered attack, double attack, fork, interposing, overloading, overprotecting, pin, remove the defender, skewer, zwischenzug.

Chess Strategy & Tactics

- Strategy
- Tactics
- Ways to find a Plan

"The opportunity to secure ourselves against defeat lies in our own hands, but the opportunity of defeating the enemy is provided by the enemy himself."

– Sun Tzu, *The Art of War*

What is Strategy?

- Strategy in Chess is the planning of how to get various kinds of advantage in the game
- Tactics: Types of moves that can result in an advantage, if the opportunity exists to use it

"Tactics flow from a superior position."

- Bobby Fischer

Elements of Strategy

Common elements of Strategy are:

1) Exploiting Weakness
2) Force
3) King Safety
4) Pawn Structure
5) Space
6) Tempo
7) Time

Tactics – The Basic Types

- Make Your Opponent's Pieces Less Mobile
- Give More Attacks Than Your Opponent Can Handle
- Remove the Defender

"All men can see these tactics whereby I conquer, but what none can see is the strategy out of which victory is evolved."

–Sun Tzu, *The Art of War*

Fork

White plays 1. g5+, and the only move for Black is 1. … h5.
Then With forks the King and Rook with 2. Be2+ Kh4 3. Bxd1.

Knight forks are more common, but the Queen, Rook, Bishop and Pawn can also create a fork by attacking two pieces with one move.

Discovered Attack

White has a discovered attack on the by moving the White Bishop to expose the threat from the White Rook on d1.

1. Bxh7+ Kxh7 2. Rxd6

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Double Attack

White plays 1. Rg8, with a double attack on the King (called "double check").

The only legal move for Black is 1. … Kxg8, and Black has no answer to 2. Rg1# checkmate.

Zwischenzug (TSVEYE-shun-tsook)

German for "intermediate move", is a tactic where instead of playing the expected move (commonly a recapture of a piece that the opponent has just captured) an immediate threat is made that the opponent must answer, then the expected move is played.

Zwischenzug

After White played 1. dxe5, Black plays 1. … dxe5 and expects White to play 2. Qxd8.

Instead, White plays 2. Bxf7+, and Black is forced to play 2. … Kxf7, and Black loses the Queen to 3. Qxd8.

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Remove the Defender

- Deflection
- Overloading
- Overprotecting
- Decoy
- Clearance Sacrifice

Visualize Checkmate Patterns

- Back Rank Mates
- Try to cover every flight square
- Consider killing defenders at any cost
- Practice: Solve direct-mate problems

"If the student forces himself to examine all moves that smite, however absurd they may look at first glance, he is on the way to becoming a master of tactics."

– Cecil Purdy, International Master

Analytical Thinking

Before each move, ask yourself:

1. **Does my opponent's last move contain a threat? If so, deal with it.**
2. **Are my own pieces all adequately protected? Has my opponent left a piece exposed to capture for free?**
3. **Is my King still safe? Is the opponent's King vulnerable?**

Before Each Move (cont'd)

4. Did my opponent meet the threat offered by my last move?
5. Do I still have pieces that need development?
6. Can I move a Rook to an open file, especially the d- or e- file? Is it possible to double up Rooks or a Queen and Rook on a useful open file?

Before Each Move (cont'd)

7. Does my opponent have a weakness that can be exploited?
8. If so, how can the weakness be exploited? Make a plan to exploit the weakness.
9. What could my opponent do to stop my plan? Is it easier for my opponent to stop the plan than it is for me to launch the plan?

Before Each Move (cont'd)

10. Does the move I plan to make overlook something very simple – such as the loss of a piece or checkmate?

"Methodical thinking is of more use in chess than inspiration."

– Cecil Purdy, International Master

Piece Mobility Rules

1. Look for opportunities to create, maintain, and increase your piece mobility.
2. Central control is not an end in itself. Be prepared use central control to strike out from the center into the enemy position, including into corners where the King lurks.
3. Grab open files for Rooks and Queens.
4. Put Bishops on open diagonals – and a longer diagonal is usually better.
5. Maneuver Knights in or near the center.
6. In the opening, keep your Queen at home unless there is a compelling reason to move the Queen – like a winning attack.
7. Get the Queen in the middle of the fight once other pieces are developed.

Strategy and Tactics

"Tactics is knowing what to do when there is something to do;

strategy is knowing what to do when there is nothing to do."

- Savielly Tartakower, Grandmaster

On the chess board, and in your life:

1. Do you see the available opportunities?
2. Do you create strategic advantages when there is "nothing to do"?

Chess Merit Badge Requirements

4. **Do the following:**
   b. Discuss the differences between the opening, the middle game, and the endgame.
   c. Explain four opening principles.

Chess Openings

- The opening refers to the first several moves by both players
- In most games the opening is the first four to ten moves
- Openings are often named after the first famous player who used them

Opening Principles

- Development
- Control the Center
- Castling
- Pawn Structure

Endgame Tips

1. Play even slower (avoid mistakes)
2. Push your passed Pawns
3. Use your King
4. Every Pawn counts!
5. Make good use of every piece
6. Control the queening square
7. Stop that Pawn now
8. Think about what to swap off
9. Give your Pawns a health check
10. Practice your endgame

Chess Merit Badge Requirements

5. **Do the following:**
   c. Set up a chessboard with the white king on ***e1***, the white rooks on ***a1*** and ***h1***, and the black king on ***e5***. With White to move first, demonstrate how to force checkmate on the black king.
   d. Set up and solve five direct-mate problems provided by your merit badge counselor.

Requirement 5c

With White to move first, demonstrate how to force checkmate on the Black king.

Requirement 5c - Fast

1.Rh4 Kf5
2.Ra5+ Kg6
3.Rb4 Kf6
4.Rb6+ Ke7
5.Ra7 Kd8
6.Rb8#

Mate in 1 - Problem #1

1. Bf6#

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Mate in 1 - Problem #2

1. cxb4#

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Mate in 1 - Problem #3

1. Qxg8#

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Mate in 1 - Problem #4

1. d8Q#
or
d8R#

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Mate in 1 - Problem #5

1. Bc7#

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Mate in 1 - Problem #6

1. Nf6#

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Mate in 1 - Problem #7

1. c5#

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Mate in 1 - Problem #8

1. Rh8#

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Mate in 1 - Problem #9

1. Ra5#

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Mate in 1 - Problem #10

1. Qc6#

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Mate in 1 - Problem #11

1. 0-0#

Mate in 2 - Problem #12

1. Rxb7+ Ka8
2. Nb6#

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Mate in 2 - Problem #13

1. Qe4+ Kh5 (or Kh3)
2. Rh1#

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Mate in 2 - Problem #14

1. Rh7+ Nxh7
2. g7#

or

1. Rh7+ Rxh7
2. g7#

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Mate in 2 - Problem #15

1. Nc7+ Rxc7
2. Nd6#

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Mate in 2 - Problem #16

1. Bb2 Bxb2
2. f8Q#

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Mate in 2 - Problem #17

1. e8Q Nxe8
2. Bf5#

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Mate in 2 - Problem #18

1. g4 Rxg4
2. Rh8#

or

1. g4 Kh6
2. Rh8#

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Mate in 2 - Problem #19

1. Qc8+ Kxc8
2. Nd6#

or

1. Nd6+ Ka6
2. Qa5#

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Mate in 2 - Problem #20

1. Nd6+ Rxd6
2. Rb8#

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Mate in 2 - Problem #21

1. Rc8 Qxc8
2. Nf7#

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Mate in 2 - Problem #22

1. Rg7+ Qxg7
2. Ne3#

or

1. Rg7+ Kf5
2. Rg5#

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Mate in 2 - Problem #23

1. Rxb5 Rxb5
2. Nc4#

or

1. Rxb5 Nxb5
2. Nc4#

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Mate in 2 - Problem #24

1. Re8+ Kxe8
2. Rg8#

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Mate in 2 - Problem #25

1. Rg3 fxg3
2. fxg3#

or

1. Rg3 R(any)
2. Rxh3#

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Mate in 2 - Problem #26

1. g7 Nxg7
2. Ng6#

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Solutions

Problem #	Solution
1	1. Bf6#
2	1. cxb4#
3	1. Qxg8#
4	1. d8Q# (or d8R#)
5	1. Bc7#
6	1. Nf6#

Solutions (cont'd)

Problem #	Solution
7	1. c5#
8	1. Rh8#
9	1. Ra5#
10	1. Qc6#
11	1. 0-0#
12	1. Rxb7+ Ka8 2. Nb6#
13	1. Qe4+ Kh5 (or Kh3) 2. Rh1#

Solutions (cont'd)

Problem #	Solution
14	1. Rh7+ Nxh7 2. g7# (or 1. Rh7+ Rxh7 2. g7#)
15	1. Nc7+ Rxc7 2. Nd6#
16	1. Bb2 Bxb2 2. f8Q#
17	1. e8Q Nxe8 2. Bf5#
18	1. g4 Rxg4 2. Rh8# (or 1. g4 Kh6 2. Rh8#)
19	1. Qc8+ Kxc8 2. Nd6# (or 1. Nd6+ Ka6 2. Qa5#)
20	1. Nd6+ Rxd6 2. Rb8#

Solutions (cont'd)

Problem #	Solution
21	1. Rc8 Qxc8 2. Nf7#
22	1. Rg7+ Qxg7 2. Ne3# (or 1. Rg7+ Kf5 2. Rg5#)
23	1. Rxb5 Rxb5 2. Nc4# (or 1. Rxb5 Nxb5 2. Nc4#)
24	1. Re8+ Kxe8 2. Rg8#
25	1. Rg3 fxg3 2. fxg3# (or 1. Rg3 R(any) 2. Rxh3#)
26	1. g7 Nxg7 2. Ng6#

Chess Merit Badge Requirements

6. Do ONE the following:

a. Play at least three games of chess with other Scouts and/or your merit badge counselor. Replay the games from your score sheets and discuss with your counselor how you might have played each game differently.

OR

Chess Merit Badge Requirements

6. Do ONE the following:

b. Play in a scholastic (youth) chess tournament and use your score sheets from that tournament to replay your games with your merit badge counselor. Discuss with your counselor how you might have played each game differently.

c. Organize and run a chess tournament with at least four players, plus you. Have each competitor play at least two games.

Types of Chess Tournaments

- **Level of Tournament**
  - Club, Area/Region, National, International
- **Types of Competitors Allowed**
  - Scholastic, Open, Invitational, Senior
  - Over the Board, Online, Correspondence
- **Type of Pairings**
  - Swiss System
  - Round Robin
  - Elimination

Swiss System Pairings

- Players are paired against players with similar scores
- Swiss pairings are complicated, usually performed by computer
- 1 point for a win, ½ for draw, 0 for loss

Other Pairings

- **Round Robin**
  - Each play plays every other player once
- **Elimination**
  - Losing players do not play in later rounds
  - Single or double elimination

Prepare to Compete

- Practice using a chess clock and recording your games
- Improve your chess by playing, studying openings, endgames, etc.
- Get enough sleep, eat balanced meals
- Know the rules for tournaments
- Select “bye” rounds, if you cannot be present for the entire tournament

During a Tournament

- Show up on time for each round
- Use good chess etiquette
- Review each move before you make it
- You can listen to background music while you play
- Report the game results to the Tournament Director after each game

Tournament Rules

- **Touch Move Rule:**
  - If you touch a piece and it can legally move, your opponent can insist that you move that piece
  - If you touch one of your opponent's pieces and can legally take it, you must take it
  - If you release your fingers from your piece and it is a legal move, your move is done

Tournament Rules

- **Distracting another player is not allowed**
  - No tapping, humming, talking to someone
- **No kibitzing**
  - Talking to a player about a game while it is still being played is not allowed
- **No cell phones or audible pagers**

Tournament Rules

- Recording a game is required at many tournaments
- Use of a chess clock is required in most tournaments

Running a Tournament

- Decide what type of tournament
- Who serves as Tournament Director, Event Coordinator, Assistants
- Who will participate, and at what fee
- Location, date & time
- Length of rounds and time controls
- Supplies and awards for tournament

Running a Tournament

- Breaks for food, & will food be provided
- Get permission to use the location
- How to advertise the tournament
- Registration information
- Directions to tournament location

Tournament Director Role

- Collect information on participants
- Assist participants in understanding the rules
- Determine and publish the player pairings for each round
- Resolve conflicts and enforce the rules
- Determine final standings and awards
- Submit tournament report to USCF

Questions?

Frank Marshall vs. Amos Burns, Paris, 1900

1. d4 d5 2. c4 e6 3. Nc3 Nf6 4. Bg5 Be7
5. e3 0-0 6. Nf3 b6 7. Bd3 Bb7 8. cxd5 exd5
9. Bxf6 Bxf6 10. h4 g6 11. h5 Re8
12. hxg6 hxg6 13. Qc2 Bg7 14. Bxg6 fxg6
15. Qxg6 Nd7 16. Ng5 Qf6 17. Rh8+ 1-0

- This famous game is called “The Pipe Game”
- Mr. Burns lit a match for his pipe after move 13, and it burned his fingers when he was stunned by the White Bishop sacrifice on move 14