



# Lesson 1

## Lesson goals:

Excite kids about the fun game of chess

Relate the cool history of chess

Incorporate chess with education: Learning about India and Persia

Incorporate chess with education: Learning about the chess board and its coordinates

Who invented chess and why?

Talk about India / Persia – connects to *Geography*

Tell the story of “seed”.

There can be possible homework relating to India and (si)53S7600520055>e p



## Lesson 3

### Lesson goals:

How to use your Pawns more effectively  
The “Break Through” in Pawn endgames  
Introduce a special “En passant” rule  
Relate to France / French culture

The importance of passed Pawns and how to create them!

In the position above, White can sacrifice a Pawn to create a passed Pawn and promote it. Solution: 1.c6 and after Black answers with 1...dxc6 2.d7 and the Pawn promotes on the next move.

In the position below





## Lesson 4

Solution: The Rook can capture all the Black Pawns in the following order: a6, d6, d4, f4, f7, h7, h3 and b3.

You can find many further examples in the “Chess Mazes” book.

See examples, when Rook versus Pawns, both sides are making moves.

Which is the fastest way to capture the Black Pawn? 1.Rb1 then Rxb7

In the next position, White has to play accurately to make sure neither Black Pawn will promote.



Let the students play games from this position:

Play up to 20 moves. If by then white hasn't captured all of Black's Pawns or Black hasn't promoted any of the Pawns call it a draw.

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## **Lesson 5**

### **Lesson goals:**

How a Rook can best help (or fight against) a Pawn  
Introduce the Bishop

Introduce the Bishop. Each side has two Bishops. Their starting positions are c1 and f1 for White and c8 and f8 for Black.

What does the Bishop look like? Show several Bishops from various sets. The slit symbolizes the two-pointed hat that Catholic Bishops wear.

Value = 3 Points or equivalent to 3 Pawns

The Bishop moves only on *diagonals* consisting of the same color squares as the Bishop is on. It can never move to a different color square than where it starts at the beginning of the game.

Show examples of how to capture 8 Pawns (with no other pieces on the board, only White moves) with the Bishop.

Solution: The Bishop can capture all of Black's Pawns (assuming that only White moves), in the following order: a4, c6, f3, h5, f7, e6, c4 and a2.

You can use the "Chess Mazes" book for further examples.

Play a few games 2 Bishops vs. 2 Rooks, each starting in their regular starting positions. If within 15 moves neither side won any piece it's a draw. Whoever captures a piece wins the game. If one side wins a Bishop but on the next move the other side can capture a Rook, -4(s)T4 1 277( a )TJ5800if5e a Rook o2e 356.3 T(m)140



However, attacking the Pawn from d4 would not serve the same purpose: 1.Bd4 f6! 2.Bc5 h5 3.Bf8 h4 4.Bxg7 h3 5.Bxf6 and after 5...h2 the Pawn cannot be caught.

**Introduce the Queen.** Each side has one Queen. Their starting positions are d1 for White and d8 for Black.

What does the Queen look like?

Value = 9 Points or equivalent to 9 Pawns / 2 Bishops and 3 Pawns / 2 Bishops and 1 Knight / 2 Knights

## Lesson 7

### Lesson goals:

- How can the Queen can be used effectively against Pawns
- The “8 Queens Puzzle” on an empty board
- Compare the value of the Queen to other pieces
- Introduce the King
- How does the King move and capture

Practice more examples of Queen fighting against the Pawns. Play out Queen versus 8 Pawns in their starting position. The easier example would be White to move first. To make it a little more challenging, let Black moves first.

In this position, White should win against the eight Pawns because none of the Black Pawns are advanced.

The more advanced the Pawns are (meaning the closer to the promotion square they are) the more dangerous they are.

In this position, even though the Black Pawns are only one square away from promotion, they can be stopped by 1.Qc5!

In this position, Black has three far advanced Pawns. By giving one up on the Kingside with 1...g2, Black will have at least one of the three Pawns reach the promotion square.

Play Queen versus 2 Bishops game (no other pieces on the board). Black would move first here. Play 15 moves. If neither side captures any piece it's a draw.

Try to place 8 Queens on an empty board in a way that none of them can connect to other. In other word, you must place 8 Queens in such a way that none of them is in the path of another - horizontally, vertically, or diagonally.

Here is one of the many solutions: Queens on a8, b2, c4, d1, e7, f5, g3, h6.

Here is a place on the web to exercise it.

<http://www.pen.k12.va.us/Div/Winchester/jhhs/math/puzzles/games/queens/queens.html>

Last but not least, introduce the King.

It is a slow piece and can only move one square at a time. However, it can move in any direction.

Play games with only the two Kings on the board. Whoever reaches the other end of the board first (1st/8th rank) wins.

## Lesson 8

### Lesson goals:

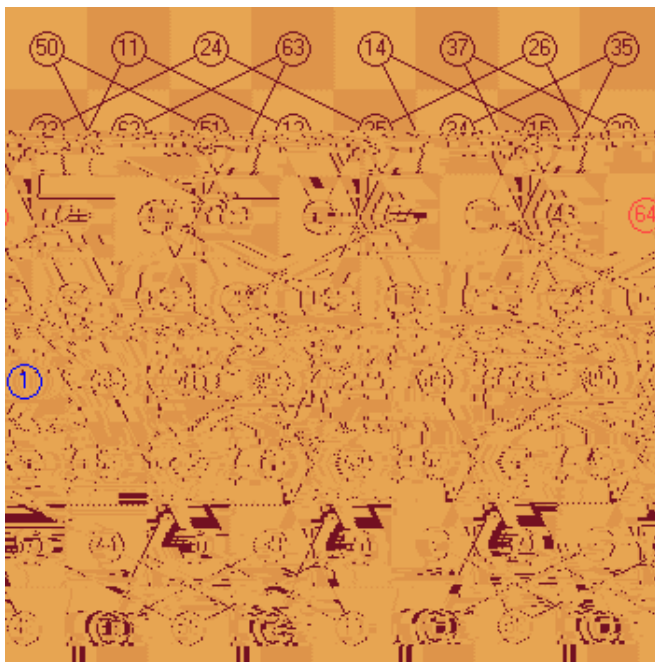
- Introduce “Castling”
- Introduce the Knight.
- How does the Knight move and capture
- The “Knight Tour”
- The Knight’s value compared to the other pieces

Explain



Try to jump with the Knight from one square to another covering *all* 64 squares on the chess board, landing only once on each square. Here is one of the countless solutions to the “Knight tour”. The Knight starts at square #1 and ends at #64. Here is a wonderful link to practice it:

<http://www.mindmagician.org/tour3.aspx>



If you are really interested to learn more about this fascinating subject read this:

[https://en.wikipedia.org/wiki/Knight%27s\\_tour](https://en.wikipedia.org/wiki/Knight%27s_tour)

## Lesson 9

### Lesson goals:

- Summarize the value of all the pieces
- What is one of the goals in chess: Checkmate!
- What is the difference between check and checkmate

<b>Pawn = 1</b>
<b>Knight = 3</b>
<b>Bishop = 3</b>
<b>Rook = 5</b>
<b>Queen = 9</b>

Summarize of the value of all the pieces.

Practice capturing. Play “Market”. Capture the more valuable piece.

Goal of a chess game: Checkmate! Explain the difference between check and checkmate.

Show a sample checkmate with each piece.

Let’s start with the Queen.

In the position above White can checkmate in four different ways. 1.Qb8, 1.Qc8, 1.Qd8 or 1.Qf7. Also point out where White can check: 1.Qd6, 1.Qc5, 1.Qe7 and 1.Qg7. Explain after each check where would the Black King escape.

Now let's see how the Rook and the Bishop checkmate:



## **Lesson 10**

**Lesson goals:**

Here are some examples.

In the four positions below, it is Black's turn. They are *stalemate* positions.



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But the following positions are not stalemate, even though the Black King has no legal moves.

## Lesson 11

### Lesson goals:

How to checkmate with King and Queen versus a lone King

Do test on differentiating between check, checkmate and stalemate.

### Test for Lesson 11

White to move. Show two ways White can checkmate. Show four ways that give check. Which one of the checks would be a big mistake? Show a move that would end the game in stalemate instantly and therefore should be avoided.

Learn to checkmate with K+Q versus K with no other pieces on the board.

There is one very important fact that we need to know about endgames with only K+Q versus K on the board: The King can only be checkmated at the *edge of the board*, namely either on the a or h file or being on the 1st or 8th rank. Naturally if there is even one single other piece on the board for either side this is not the case.

Here is the game plan:

- 1) Force the King to the edge of the board
- 2) Cut it off and

Now let's see it in practice:

The Black King is right in the middle of the board on d5. Knowing the above mentioned "fact" we have to put as a priority forcing the Black King to the "wall".

**1.Qf6** With this move, White has put the Black King in a "box". Meaning the Black King cannot cross the f file or the 6th rank.     **Ke4** The Black





## Chess notation

If a Queen moves from d1 to h5, we would write Qd1-h5 or simply Qh5. The symbol for capturing a piece is x. Therefore, if you capture a piece you would write Qxh5. If you give a check you add a “+” after the move.

For a Rook move, you write R; For a Bishop move B; King move K; Knight move N (not to mix it up with a King move). If a Pawn moves you do not need to write P, just the name of the square the Pawn is moving to. Castling has a special notation. Castling to the King (short) side you write 0-0 and 0-0-0 for castling to the Queenside.

How to record a chess game and why? Here are two important reasons: To be able to go back and learn from your mistakes or to show off a beautiful combination. Also to be able to prove what the position is on the board in case your opponent tries to cheat.

Show miniature games. One side follows the basic opening principles while the other breaks the rules.

Here is a sample which demonstrates a good start for White and a bad start for Black:

**1.e4 h5 2.d4 Rh7 3.Nf3 Na6 4.Nc3 Rb8 5.Bc4 Rh8 6.0 0 Nh6 7.Bf4**

In this example, White has been nicely following the basic opening principles, while Black has completely neglected them. Let the class play games focusing on following the basic opening principles and on captures.

Order of importance in chess: checkmate, winning pieces, gaining small strategical advantages.



## Lesson 13

### Lesson goals:

How checkmate with two Rooks versus a lone King  
How checkmate with one Rook versus a sole King

Learn K+2R versus K checkmate method.

The method we checkmate a sole King with two Rooks is: using one Rook to limit the King's mobility (like in the above example, the Rook on f2, stops the Black King from crossing through the f file) and other Rook to check the King forcing it towards the edge of the board. Let's see how this actually works: 1.Rg1+ Kh4 2.Rh2 checkmate. You do not really need the help of the (White) King to checkmate a sole King with two Rooks.

How to checkmate with a Rook a sole King. Here, we will *need* the help of our King as one Rook cannot do it on its own.

The first step: Limiting the mobility of the Black King. **1.Ra4 Kd5** Next White brings the King to help. **2.Kd2 Ke5 3.Kd3 Kd5 4.Ra5+ Ke6 5.Kd4 Kf6** Now that the King is close by, ready to help, the White Rook starts limiting more and more the Black King's moves. **6.Re5 Kf7 7.Kd5 Kf6 8.Kd6 Kf7 9.Re6 Kg7 10.Ke7 Kg8 11.Rg6+ Kh8 12.Kf7 Kh7** And now an important waiting move **13.Rf6** (Any Rook move towards the Queen side would work, like 13.Ra6, 13.Rb6 and so on with the same purpose) **Kh8 14.Rh6 checkmate.**

## Lesson 14

### Lesson goals:

- Introduce “Fork”
- Pawn forks
- Knight forks
- “Family fork”

What is a fork? It is a tactical tool to gain material advantage or to checkmate. It is also called double attack. It means you attack two targets at once. Usually we would refer to attacking two of the opponent pieces at the same time. When one of the attacked pieces moves away we capture the other. In some other cases, we threaten with checkmate and attack an enemy piece.

Each piece can fork. Let’s start with Pawn forks.

In the above diagram position White can fork with 1.d4, checking Black’s King and attacking Black’s Rook simultaneously. Black will end up losing the Rook. In this case it was important that the d4 square was protected by White’s e3 Pawn. Otherwise the Black King could capture it (on d4) as shown on the diagram below.

The Knight is the strongest forking piece. Let’s see some basic Knight forks:

In the first one the solution is 1.Nc4+ and in the second one, 1.Nd6 winning material in both cases.

No5      No

## Lesson 15

### Lesson goals:

- Queen Fork
- Bishop Fork
- Rook fork
- King fork
- Counter fork

Let us learn in this lesson about Queen, Rook and Bishop forks. In concept, they are no different from the Knight and Pawn forks which we have already learned about in lesson 14.

Here are a few examples:

In this position the White Queen can fork with 1.Qd4+.

Here the solution is 1.Bd5+ forking Black's King and Rook.

Even the King can fork, although it is rare.

In the position above, White is in check, yet after moving out of the check with 1.Ke5, the King attacks both Black Rooks – resulting a fork and a gain of a Rook.

Not all forks are “deadly”. In some cases you can answer a fork with a “counter fork”.

In this position White seemingly can gain material by playing 1.e5, attacking both Black Bishop and Knight. However, after a closer look we can recognize that Black comes out ahead after 1...Nc4+ winning White's Rook.

## Lesson 16

### Lesson goals:

Checkmate with two Bishops against a lone King.

The Pin

Absolute Pin

Relative Pin

Making pins



Practice position to play out:

White: Ke8, Be1, Bd1 Black: Ke4 Try to checkmate within 30 moves.

A sole Bishop and King versus a King is a draw. It is impossible to win with no other material on the board. The same goes for a King and Knight versus King only.

A King and two Knights versus King is also a draw unless the lone King is already in the corner and ready to be checkmated.

A *pin* is a move which forces one of the opponent's pieces to stay still because moving it would expose the King or a more valuable piece behind it. A pin is a very common and powerful tool often resulting in winning material or even in checkmate. A pin can only be created by three pieces: Bishop, Rook or Queen.

There are two types ocaunin

Now let's look at an example of a relative pin.

Here after 1.Bg5, Black loses at least the Knight as after the Knight would move Black's Rook on d8 would fall.

## Lesson 17

### Lesson goals:

How to use pins.  
Getting out of a Pin

There are cases when creating a pin does not result in immediate material gain. That happens when the *pinning piece* is of the same or higher value than the *pinned piece* and the pinned piece is on a protected square.

In this position, the White Bishop is pinning another Bishop. Capturing Black's Bishop would only result in a trade and no gain. However, because the Black Bishop is restricted to moving only on the a1-h8 diagonal, White can take advantage of this situation and play 1.Rf8 checkmate!

Here is another example where Black is winning material, thanks to an existing pin.

The solution is 1...Qxd4 and after 2.exd4, Rxe1+ and Black has won a Rook.

However, there are pins which look scary but you can get out of!

For example in the above position, Black can successfully defend by blocking the pin with 1...Bd5.

## **Lesson 18**

**Lesson goals:**

## Opposition #1

Here, the White King is right in front of its own Pawn. The two Kings are opposite each other. Whoever needs to give up this "opposition" is losing the battle. If it is Black's turn White will win the following way: 1...Kd7 2. Kf6 Ke8 3. Ke6 Kd8 4. e5 Ke8 5. Kd6 Kd8 6. e6 Ke8 and 7. e7.

If it is White to move Black is able to draw: **1. Kd5 Kd7** The only right move to maintain the opposition. After 1.Kf5 the answer would be 1...Kf7.

**2. e5 Ke7 3. e6** and now as we already learned from the previous position **3...Ke8! 4. Kd6 Kd8 5. e7+ Ke8 6. Ke6** Stalemate.

## Opposition #2

What is the only winning move for White? **1. Kd4!** gaining the opposition **1...Kd7 2. Kd5 Ke7 3. Kc6** (Going on the opposite side from Black's King) **Kd8 4. d4 Kc8 5. d5 Kd8 6. Kd6! Ke8 7. Kc7** and the d Pawn marches through.

## Lesson 19

### Lesson goals:

Discovered check  
Discovered attack  
The “Mill” in Chess

The “discovery” is a very important and powerful tactical tool in chess. It has different variations such as the “discovered check”, the “discovered attack”, the “Mill”, and “double check”.

Let us look at an example of each, starting with the discovered check.

In the position above, White by moving the Knight will “uncover” the Bishop and therefore check the Black King. If the Knight is able to find a square, from where it attacks something (for example, like the Black Queen), that is how White can take advantage of such opportunity. The correct move is 1.Ne7+. After Black moves out of the check, White captures the Queen with 1.Nxg6.

In this position, if the Black King was on g8 instead of h8 – then Nd5-f6+ would be the answer. But now, there is no discovered check. However, White can gain material by playing 1.Nb4, exposing the Rook on d1 to attack the Black Queen on d7, while the Knight attacks the Black Rook on a2.

As we can see discovery is a special sort of a double attack.

In the next position, we shall see why discovery is so special.

Normally in this position 1.Nd6+ looks bad as it seems that the Pawn on c7 can capture it. However, because of the *discovered check* (the Queen from b3 checking Black's King) Black needs to get out of check and lose the Queen.

So the main power of discovery is that often you can put your piece to an “unsafe looking” square.

Sometimes you can even use a discovery to checkmate!

Solution: 1.Bf8 checkmate!

What is the “Mill” in chess? It is repetitiv

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## Lesson 21

### Lesson Goals:

Back rank checkmate  
Pattern recognition

The back rank checkmate traps is one of the most frequent that beginner players fall into. Even more experienced chess players sometimes forget about it.

We refer to the “back rank problem” when the limitation of the chessboard, the 8<sup>th</sup> rank for Black and the 1<sup>st</sup> rank for White causes one side to get checkmated.

Here is the most basic illustration of it.

In this example, Black can checkmate in one with 1...Qh1.

The only two pieces which can give back rank checkmate are the Rook and the Queen.

Pattern recognition is one of the most important aspects of chess. It is estimated that an average chess grandmaster can recognize about 20,000 chess patterns or more.

Now we shall see how to recognize this same pattern (of back rank checkmate) from a distance of 2 or even 3 pair of moves!

Here Black has a Rook protecting the e8 square. Yet, White succeeds after 1.Re8+ Rxe8 2.Rxe8 checkmate.

In the following example, Black guards the e8 with both the Rook and the Knight.

Here 1.Qe8+ would not work because of simply 1...Rxe8 2.Rxe8+ Nxe8 and White ran out of ammunition. However, 1.Qxa8+ serves the purpose! White sacrifices the Queen to get rid of all Black's defense of the crucial e8 square. 1...Nxa8 2. Re8 checkmate. This is called removing the guard or deflection.



## **Lesson 22**

### **Lesson Goals:**

#### Skewer

Another important tactical tool is the skewer. Just like in real life as you would make a skewer of meat and vegetables in chess you “skewer” two enemy pieces on the same line (which can be on a file, rank or diagonal).

Here, Black suffers because the King and Queen are lined up on the same diagonal. White having a light squared Bishop, can take advantage of this with 1.Bf3+.

In our third example the Queen is the hero. The solution is 1.Qh6+ winning Black's Queen.

In our final example, Black seems to be doing well. The Black Pawn is only one square away from the promotion square (h1). Yet White is in a winning position.

The solution is 1.a7 and after Black promotes the Pawn with 1...h1Q, White also promotes but with a check and skewer...right away winning Black's new Queen.



## Lesson 23

### Lesson Goals:

Opening traps

Normally you can be safe by following the general opening principles; however there are famous opening traps good to know about.

“Petroff defense”

From the starting position: **1.e4 e5 2.Nf3**

White will answer with **4.Qe2** attacking Black's Knight on e4.

Now Black is in trouble. If the Knight moves away from e4, for example \_\_\_\_\_, then White has a discovered check to win Black's Queen with **5.Nc6+**.

Let's go back a little to the position after White's fourth move (see the above diagram).

At the above diagram position, a better defense is (instead of 4...Nf6) 4...d5 protecting the Knight. Then White attacks the Knight again, (with the Pawn, this time) with 5.d3.

Here the same idea is renewed: if the Black Knight leaves the e4 square then 6.Nc6+ wins the Black Queen. The best Black can do is play 5...Qe7 and lose only a Pawn after 6.dxe4 Qxe5 7.exd5. Here Black cannot capture the d5 Pawn because the Black Queen is pinned on the e file.

White is also ends up a Pawn ahead if in the above diagram position, Black tries to counter attack with 4...Qe7. Then, White captures the Black Knight with 5.Qxe4 and after 5...d6 plays 6.d4 dxe5 7.dxe5.

## Lesson 24

### Lesson goals:

Opening trap – fork  
Smothered mate

Here is another opening trap you should avoid as White:

**1.d4 Nf6 2.Nf3 c5**

In this position, White could capture the Pawn on c5 with **3.dxc5**. However, Black's plan is to check with **3...Qa5+** and win the Pawn back.

**3.Bf4 cxd4 4.Nxd4** This is already a mistake. Recapturing with the Queen (**4.Qxd4**) was better.

Now, Black has an unexpected combination to win material. First, Black sacrifices a Pawn with **4...e5**. This is a fork. If either piece (Bishop or Knight) just moves away, the other would be captured. But, what happens if White just takes the Pawn with **5.Bxe5**?

Then comes a second fork:

Now, White is in check and after White blocks the check, Black can capture the Bishop on e5 with 6...Qxe5 and win a Bishop for only a Pawn.

What is smothered mate? It is a special kind of checkmate, where the King has no escape because his own pieces surround him.

In this position, the Black King has no room to “breathe”. White can checkmate with 1.Nf7. Now that you know the pattern of the “smothered mate”, can you find how White checkmates in two moves with the same idea?

Solution: 1.Qg8! sacrificing the Queen, forcing the Black Rook to take the Queen on g8 and then 2.Nf7 checkmate.



Black has just won a Pawn right? Right, but it only brings very temporary.

**9.Bb5+** and with this discovery, White wins Black's Queen.

Sometimes, we would like to move a piece to a certain square on the board but we cannot because one of the opponent's pieces is guarding it. Let's see how to remove the guard.

In the position below, White could capture Black's Queen, right away but that would only be an equal trade as Black could then recapture with  $12...Nxf5$ .

But after the correct  $1.Nxf6+$  exchanging the Knight first, White removes the guard of the Queen and after  $1...gxf6$ , White can capture the Black Queen with  $2. Qxh5$ .



## **Lesson 26**

**Lesson goals:**

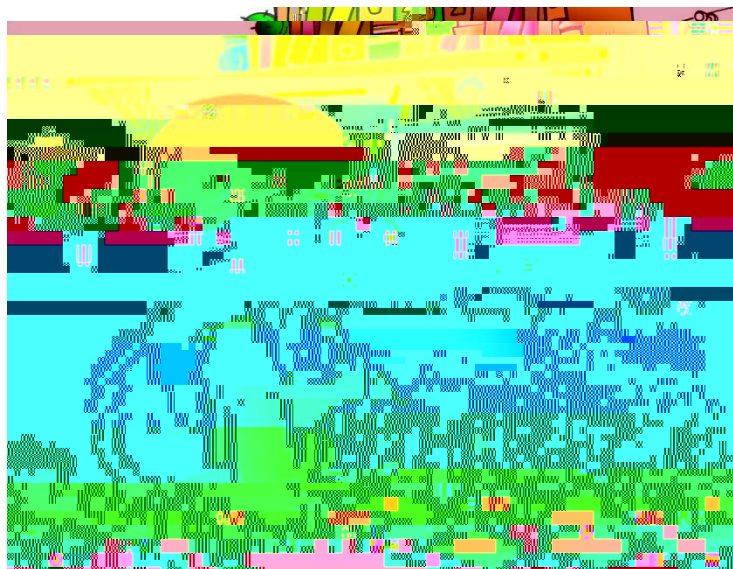
In this endgame, (as we refer to positions which have only very few pieces left on the chessboard) each side has only a King and a Rook. In most cases, that is a draw unless either side makes a big mistake.

In this case, there is something unusual. White hasn't yet lost his right to castle yet! Therefore, by castling to the Queenside (0-0-0), White can make a check and attack the Rook at the same time. In other words, this makes a very rare type of fork.





White has given up a Bishop to get rid of Black's h7 Pawn and to weaken the defense in front of the Black King. The White Queen is near the enemy King, ready for action. But she needs help...and it comes with 1.Ng5. Now Black cannot stop the checkmate with 2.Qh7.



## Lesson 28

### Lesson goals:

Intermediate moves  
German connection

What are intermediate moves? We also call them in-between moves or by their original German name “Zwischenzug”. What we mean by it is that sometimes we can and should delay a very obvious looking move, such as for example capturing a Bishop or even a Queen.

Let’s see some examples:

Can White simply capture the Rook on c5? I’m afraid not. Black has set up a trap: after 1.Qxc5, Qh1 checkmates! However, if White first gives an intermediate check with 1.Rh4+ and only after 1...Kg8, captures the Rook on c5, then White’s Rook from h4 protects the h1 square.

Can White capture Black’s Queen with 1.Qxd5?

No, because of the back rank problem (1.Qxd5? Re1 checkmate). However, White can sacrifice the Bishop first by playing 1.Bb8+! opening up the escape square (h2) and after 1...Kxb8 2.Qxd5 with clear material gain.

Both Queens are “hanging”. If White captures Black’s Queen (1.Rxd5), Black captures White’s Queen (1...Nxc3). But White can gain a Rook in this exchange by first capturing Black’s Queen (1.Rxd5) and then recapturing with the Rook (1...Rxd5) and finally capturing White’s Queen (1.Rxc3).

x ♖ Q x ♖ R



In the above position, White has an extra Rook and three Pawns. Normally this is a winning advantage. However, Black can save the game with 1...Qg3+ in this position. White has no choice but to play 2.Kh1, then 2...Qh3+ and again White has no choice but go back to g1 (3.Kg1). Then again 3...Qg3+ and back and forth until there will be the same position three times. This is called draw by perpetual check.



