



# Minibridge - helping primary school children with their Maths!

Coming to your area on 18 May

Dear Maths Teacher / Head Teacher

The English Bridge Union (EBU) has launched a funded scheme to bring Minibridge into the school classroom over the next three years.

Minibridge is a simplified version of the card game of bridge and has proven suitable for classroom use, allowing children the opportunity to improve their logical and lateral thinking skills within the framework of play, which offers dynamic brain training.

A recent study showed that bridge and Minibridge teaches children skills in numeracy, problem solving, probability, speaking, listening, rule following, team building, mental capacity and much more. Please see enclosed for more information.

Throughout this year, the EBU are organising workshops across the country to introduce this brain training game to primary school teachers. We will be holding a workshop in your area at All Saints Church\*, Edgware, Middlesex on **18 May 2010\***. Teachers are invited to attend two hour long sessions from 13:00pm.

We welcome any primary school teacher in the area to come along and discover this FREE initiative, so that you can help your pupils in their maths.

**Further information: [www.ebu.co.uk/minibridge](http://www.ebu.co.uk/minibridge) or email: [matt@ebu.co.uk](mailto:matt@ebu.co.uk)**

Why not come along to a practical FREE demonstration of Minibridge at **All Saints Church, Waltham Drive, Edgware, Middlesex, HA8 5PQ**

13.00: Arrive  
13.15 - 14.15: First Session  
14.30 - 15.30: Second Session  
15.30pm: Finish

Please call 01296 317 215 or email [Matt@ebu.co.uk](mailto:Matt@ebu.co.uk) if you would like register your attendance.

\* Please note that the date and time have changed from what was originally advertised.

Teaching Maths doesn't have to be so stressful!  
[www.ebu.co.uk/minibridge](http://www.ebu.co.uk/minibridge)

# MINIBRIDGE AND MATHEMATICS

The National Strategies | Primary | APP

<b>National Curriculum Programme of Study MA1 Using and Applying Number</b>	
<b>APP opportunity Levels 2-4</b>	<b>Element of Minibridge</b>
<b>1. Respond to 'What if?' Questions (L3)</b>	<p><b>1a</b> – What if North-South and East-West have 20 HCP each?</p> <p><b>1b</b> – What if HCP do not add up to 40?</p> <p><b>1c</b> – What if Two Attackers have an equal number of HCP?</p> <p><b>1d</b> – What if a player runs out of cards in the suit to follow?</p> <p><b>1e</b> – What if East has the Ace of Diamonds and not West?</p> <p><b>1f</b> – What if West is on lead and not East?</p> <p><b>1g</b> – What if The Trick Target were different?</p>
<b>2. Find a starting point, identifying key facts/relevant information (L2)</b>	<p><b>2a</b> – 13 Tricks in play</p> <p><b>2b</b> – High Card Values  <b>Ace = 4 King = 3</b>  <b>Queen = 2 Jack = 1</b></p>
<b>3. Predict what comes next in a simple number, shape or spatial pattern or sequence and give reasons for their opinions (L2)</b>	<p><b>3a</b> – Rank of Cards in Sequence</p> <p><b>3b</b> – Which card wins a particular trick?</p>
<b>4. Pose and answer questions related to a problem (L3)</b>	<p><b>4a</b> – Which suit should I play first?</p> <p><b>4b</b> – Which card should I play first?</p> <p><b>4c</b> – Which card should I play in second, third or fourth position to a trick?</p>

<b>National Curriculum Programme of Study MA1 Using and Applying</b>	
<b>APP opportunity Levels 2-4</b>	<b>Element of Minibridge</b>
<b>5. Review their work and approaches (L4)</b>	<p><b>5a – Use <i>Help Texts</i> in <b>Grade One and Grade Two Problem Solving</b> to verify results and correct illogical or faulty reasoning</b></p> <p><b>5b – Use <i>Autoplay</i> facility to see how the cards should have been played to best advantage</b></p>
<b>6. Check their methods and justify answers (L4)</b>	<p><b>6a – Sort cards into suits to help avoid incorrect choice of card</b></p> <p><b>6b – Identify tricks to be won on a suit by suit basis</b></p> <p><b>6c – Identify correct order of card selection for each key suit</b></p> <p><b>6d – Identify correct order of play to achieve goals on the deal as a whole</b></p>
<b>7. Identify patterns as they work and form their own generalisations/rules in words (L4)</b>	<p><b>7a – Identify suits that could be blocked by incorrect play – <b>Grade One Problem Solving + Quiz</b></b></p> <p><b>7b – Identify suits that are dealt blocked - <b>Grade One Problem Solving + Quiz</b></b></p> <p><b>7c – Identify strategies for avoiding and resolving suit blockage - <b>Grade One Problem Solving + Quiz</b></b></p> <p><b>7d – Identify the underlying pattern for blocked or block-able suits – <b>Grade One Problem Solving + Quiz</b></b></p>
<b>8. Check answers and ensure solutions make sense in the context of the problem (L4)</b>	<p><b>8a – Play from strong suits</b></p> <p><b>8b – Identify Winning Cards – <b>Grade One Problem Solving</b></b></p> <p><b>8c – Identify potential winning cards – <b>Grade Two Problem Solving</b></b></p> <p><b>8d – Play cards in correct order</b></p>

<b>National Curriculum Programme of Study MA2 Number</b>	
<b>APP opportunity Levels 2-5</b>	<b>Element of Minibridge</b>
<b>9. Pupils count sets of objects reliably and use mental recall of addition and subtraction facts to 10 (L2)</b>	<b>9a</b> – Count Cards in Suits <b>9b</b> – Count High Card Points (HCP) in each suit <b>9c</b> – Count Tricks won and lost
<b>10. One and Two Step Operations (L3)</b>	<b>10a</b> – Count Suits <b>10b</b> – Count cards dealt <b>10c</b> – Count Cards in Suits <b>10d</b> – Count High Card Points dealt – Individually <b>10e</b> – Count High Card Points dealt – Collectively <b>10f</b> – Calculate Trick Targets
<b>11. Recognising Fractions (L3)</b>	<b>11a</b> – 20 HCP = half the points in the pack <b>11b</b> – 10 HCP in each suit = $\frac{1}{4}$ the points in the pack
<b>12. Recognise some fractions that are equivalent to <math>\frac{1}{2}</math> (L3)</b>	<b>12a</b> – 20 HCP = half the points in the pack out of 40
<b>13. Add and subtract 2-Digit numbers mentally (L3)</b>	<b>13a</b> – Calculate High Card Points as a team <b>13b</b> – Calculate High Card Points for the whole table
<b>14. Use mental recall of addition and subtraction facts to 20 in solving problems involving larger numbers (L3)</b>	<b>14a</b> – Calculate High Card Points as a team <b>10b</b> – Calculate High Card Points for the whole table <b>10c</b> – Calculate Trick Targets

<b>National Curriculum Programme of Study MA2 Number</b>	
<b>APP opportunity Levels 2-5</b>	<b>Element of Minibridge</b>
<b>15. Solve one-step whole number problems appropriately (L2)</b>	<b>15a</b> – Add High Card Points dealt
<b>16. Solve two-step problems that involve addition and subtraction (L3)</b>	<b>16a</b> – Decide who are Attackers based on number of High Card Points dealt per team  <b>16b</b> – Calculate Trick Targets
<b>17. Use the knowledge that subtraction is the inverse of addition (L2)</b>	<b>17a</b> – Work out the total of HCP for one player based on the addition of the other three players and subtraction from 40  <b>17b</b> – Understand that if a player announces e.g. 10 HCP and has played 6 HCP – then subtract points played from points announced to calculate points still held
<b>18. Use mental calculation strategies to solve number problems (L2)</b>	<b>18a</b> – “I have 13 High Card Points”  <b>18b</b> – “We have a total of 26 High Card Points as a team”  <b>18c</b> – “Our target is 8 Tricks”  <b>18d</b> – “One round of spades has been played so there are 9 spades left unplayed”  <b>18e</b> – “We need two more tricks to reach out Target”
<b>19. – Use symbols to represent an unknown number or a variable (L5)</b>	<b>19a</b> – If $x =$ an unknown high card and $3x = 9$ . Which high card is represented by the symbol $x$ ?  <b>(Lesson Four Quiz in Teach Minibridge CD – Basic Algebra)</b>

<b>National Curriculum Programme of Study MA3 Shapes Space and Measure</b>	
<b>APP opportunity Level 2</b>	<b>Element of Minibridge</b>
<b>20. Use ordinal numbers (first, second, third...) to describe the position of objects in a row (L2)</b>	<b>20a</b> – East is first to play South is second to play West is third to play North is last to play
<b>21. Recognise and explain that a shape stays the same even when it is held up in different orientations (L2)</b>	<b>21a</b> – A card is recognisable from any angle as the same card  <b>21b</b> – A card indicates trick won or lost according to orientation when placed face down on the table at the end of a trick
<b>22. Distinguish between left and right and between clockwise and anticlockwise (L2)</b>	<b>22a</b> – Play is clockwise at all times  <b>22b</b> – Dealing is also clockwise so that if North dealt first, East deals next (left of dealer)

<b>National Curriculum Programme of Study MA4 Handling Data</b>	
<b>APP opportunity Levels 3/4</b>	<b>Element of Minibridge</b>
<b>23. Gather relevant information to answer a key question (L3)</b>	<b>23a</b> – Who will be Attackers?  <b>23b</b> – Who will be Boss?  <b>23c</b> – What is the Trick Target for Attackers and Defenders?  <b>23d</b> – Who is on lead?  <b>23e</b> – Who won the last trick?  <b>23f</b> – Who has won the game?

<b>National Curriculum Programme of Study MA4 Handling Data</b>	
<b>APP opportunity Levels 3/4</b>	<b>Element of Minibridge</b>
<b>24. In the context of data relating to everyday situations, understand the idea of 'certain' and 'impossible' relating to probability (L3)</b>	<p><b>24a</b> – It is impossible for West to hold the Ace of Spades because his High Card Points announced were less than 4 or he has less than 4 HCP left to play?</p> <p><b>24b</b> – South is certain to win this trick in clubs because 12 cards have already been played in the club suit to previous tricks and he is playing the last card in clubs first to a new trick</p>
<b>25. Gather information (L3)</b>	<p><b>25a</b> – <u>Sorting</u> a hand is the way we express putting cards of the same suit together for visual convenience</p> <p><b>25b</b> – <u>Set out</u> the Table cards in vertical columns so that they are arranged in suits – one column per suit</p>
<b>26. Extract and interpret information presented in simple tables (L3)</b>	<b>26a</b> – Use trick target table
<b>25. Use related vocabulary accurately (L4)</b>	<p><b>25a</b> – Identify and Define Instant Winners as “Masters”</p> <p><b>25b</b> – Identify Potential Extra Winners and Distinguish them from Instant Winners</p>

<b>National Curriculum Programme of Study MA4 Handling Data</b>	
<b>APP opportunity Levels 3/4</b>	<b>Element of Minibridge</b>
<b>26. Use mathematical content from levels 3 and 4 to solve problems and investigate (L4)</b>	<p><b>26a</b> – Mentally recalling the precise number of HCP Announcements for each player</p> <p><b>26b</b> – Mentally recalling the number of cards played in each suit – <b>use the four times table for quick recall</b></p> <p><b>26c</b> – Mentally recording the key cards played in a given suit and comparing that to the HCP Announcements</p> <p><b>26d</b> – Interpreting this information in the context of the game</p> <p><b>26e</b> – Planning a strategy based on the data recalled and calculations made</p> <p><b>26f</b> – Visualising the outcome of certain choices of card to play and comparing that with the outcome of different strategic choices</p>

<b>National Curriculum Programme of Study MA4 Handling Data</b>	
<b>APP opportunity Levels 3/4</b>	<b>Element of Minibridge</b>
<p><b>27. In the context of data relating to everyday situations, understand the language of probability such as 'more likely, equally likely, fair, unfair, certain' (L4)</b></p>	<p><b>27a</b> – Is it fair to expect a team to win the same number of tricks as another team who have far more powerful cards?</p> <p><b>27b</b> – If 12 cards in hearts have been played, the <b>last card in hearts</b> is a <b>certain winner</b> if played first to a new trick</p> <p><b>27c</b> – Inference – If West is on lead and has just won three tricks in clubs with all following suit, how likely is West to have the last club if he now plays a different suit?</p> <p><b>27d</b> – If Ace, King and Queen in one suit are played to a trick or tricks, <b>Jack in the same suit</b> is now a <b>certain winner</b> if played first to another trick</p> <p><b>27e</b> – If South has more high cards points than North, who is more likely to hold a particular high card?</p> <p><b>27f</b> – If East and West announced an equal number of HCP, It is equally likely for one to hold a particular high card as the other</p> <p><b>27g</b> – Which is more likely: a 3-3 distribution of six opponents' cards in one suit or a 4-2 distribution? <b>(Grade Two Problem Solving and Quiz on Teach Minibridge CD)</b></p> <p><b>27h</b> – Is a 3-2 distribution of five opponents' cards in one suit more or less likely than 50%? <b>(Grade Two Problem Solving and Quiz on Teach Minibridge CD)</b></p>

# MINIBRIDGE AND ENGLISH

The National Strategies | Primary

National Curriculum Programme of Study EN1 SPEAKING and LISTENING KS2	
1. Speaking	Element of Minibridge
<p><b>En1 1a Use vocabulary and syntax that enables them to communicate more complex meanings</b></p>	<p><b>1a</b> – Describe cards in the pack</p> <p><b>1b</b> – Explain <b>suits</b> and <b>rank</b> of cards</p> <p><b>1c</b> – What does “<b>on lead</b>” mean?</p> <p><b>1d</b> – What is a <b>Trick</b>?</p> <p><b>1e</b> – Who are “<b>Puppet</b>” and “<b>Boss</b>”?</p> <p><b>1f</b> – Which are the <b>High Cards</b>?</p> <p><b>1g</b> – What are <b>High Card Points</b>?</p> <p><b>1h</b> – Explain how to win a Trick?</p> <p><b>1i</b> – <b>Portrait</b> – Trick won <b>Landscape</b> – Trick lost</p> <p><b>1j</b> – Give instructions to Puppet</p> <p><b>1k</b> – Explain <b>Trick Targets</b></p>
<p><b>En1 1e. Speak audibly and clearly, using spoken standard English in formal contexts</b></p>	<p><b>2a</b> – Describe cards in the pack</p> <p><b>2b</b> – Announce High Card Points</p> <p><b>2c</b> – Explain Trick Target</p> <p><b>2d</b> – Explain rules of the game</p> <p><b>2e</b> – Give instructions to Puppet</p> <p><b>2f</b> – Ask whose turn it is to play or deal?</p> <p><b>2g</b> – Answer Quiz Questions Lessons 1 - 4 plus Grades One and Two Problem Solving and Quizzes</p>

2. Listening	Element of Minibridge
<p><b>En1 2a Identify the gist of an account or key points in a discussion and evaluate what they hear</b></p>	<p><b>3a</b> – Listen to the High Card Points Announcements as they are made by other players</p> <p><b>3b</b> – Calculate High Card Points for the teams based on Announcements by other players</p> <p><b>3c</b> – Identify the respective team targets based on data gathered by listening</p> <p><b>3d</b> – Understand the logical or strategic points of play as explained by other players or by the Teacher</p>
<p><b>En1 2b Ask relevant questions to clarify, extend and follow up ideas</b></p>	<p><b>4a</b> – Ask who won the last trick</p> <p><b>4b</b> – Ask whose turn it is to play or deal</p> <p><b>4c</b> – Ask questions about the rules</p> <p><b>4d</b> – Ask what the correct Trick Target is for each team</p> <p><b>4e</b> – Ask Boss which card to play if you are Puppet</p> <p><b>4f</b> – Ask what the correct score is in tricks won or lost?</p>
<p><b>En1 2d. Identify features of language used for a specific purpose [for example, to persuade, instruct or entertain]</b></p>	<p><b>5a</b> – Instruct Puppet to play their cards</p> <p><b>5b</b> – Negotiate with partner - if you both are Attackers with equal number of HCP – as to who should be Boss</p>

<b>2. Listening</b>	<b>Element of Minibridge</b>
<p><b>En1 2e. Respond to others appropriately, taking into account what they say</b></p>	<p><b>6a</b> – Answer questions about the rules</p> <p><b>6b</b> – Respond courteously if you are asked if it is your turn</p> <p><b>6c</b> – Announce High Card Points</p> <p><b>6d</b> – Announce your team Trick Target</p> <p><b>6e</b> – Puppet must obey instructions from Boss without argument</p>

<b>3. Group Discussion and Interaction</b>	<b>Element of Minibridge</b>
<p><b>En1 3a. Make contributions relevant to the topic and take turns in discussion</b></p>	<p><b>7a</b> – Participate in the game with appropriate information given and requested</p> <p><b>7b</b> – Answer questions on strategy and/or mathematics as directed by the Teacher</p> <p><b>7c</b> – Interpret the rules or the play for the benefit of the understanding of others</p> <p><b>7d</b> – Answer Quiz Questions in Lessons 1 - 4 plus Grades One and Two Problem Solving plus Quizzes</p>

<p><b>En1 3c. Qualify or justify what they think after listening to others' questions or accounts</b></p>	<p><b>8a</b> – Justify actions if asked to do so by Partner or Teacher</p> <p><b>8b</b> – Evaluate others' assessment of your reasoning or justifications for choosing a particular card or suit to play</p> <p><b>8c</b> – Suggest alternative cards or suits that could have been chosen to play and give reasons</p>
---	---

<b>3. Group Discussion and Interaction</b>	<b>Element of Minibridge</b>
<p><b>En1 3d. Deal politely with opposing points of view and enable discussion to move on</b></p>	<p><b>9a</b> – Partner may be very disappointed with your actions and may say so – how will you deal with criticism?</p> <p><b>9b</b> – Opponents will be happy to defeat you – will you congratulate them if they do?</p> <p><b>9c</b> – The calculations may be incorrect for High Card Points or Trick Targets – will you resolve the inconsistencies or disagreements in a calm and serene way?</p> <p><b>9d</b> – Learn to challenge Partner or Opponent with a polite enquiry or question: “why did you play that card or suit?” rather than judging their selection unfairly or without mutual discussion.</p>
<p><b>En1 3e. Take up and sustain different roles, adapting them to suit the situation, including chair, scribe and spokesperson</b></p>	<p><b>10a</b> – Puppet has to be Referee. Will you be fair to both teams in your role as Puppet/Referee?</p> <p><b>10b</b> – Boss will have to decide on cards played for two people. Will you keep a clear head when thinking for two?</p> <p><b>10c</b> – Defenders must not consult or use improper signals to cooperate in the card play. Will they respect their roles as active but silent participants?</p>

January 2010

Compiled by Cindy Cole (Pembury School, Tunbridge Wells) and David Adelman (EBU Schools and Youth Officer)

For more information on the Minibridge initiative, please see:  
[www.ebu.co.uk/minibridge](http://www.ebu.co.uk/minibridge)

# Minibridge in the Classroom

## Summary

### Funding Arrangements and Educational Relevance

- Minibridge is a team card game that “levels the classroom playing field”
- **Funding is now available nationally** to train staff to introduce the game at no cost to schools
- A **Teacher’s inter-active CD** is included in the funded package on a free two-year trial licence
- A funded training event must have **at least 16 participants** (with at least 12 qualified teachers)
- Training sessions are about 2 hours and can be **INSET or twilight**.
- Sessions are great fun and intensely practical. Most of the time is spent learning to play Minibridge while “discovering” its educational potential.

#### Maths

- Patterns and sequences
- Probability and certainty
- Working with unknown numbers (basic algebra)
- Adding/subtracting, single & two figure numbers

#### Thinking Skills

- Working memory
- Handle key data
- Problem solving
- Focus and concentration
- Apply strategic reasoning
- Deductive and inferential logic

#### English Language and Communication

- Justify actions
- Ask relevant questions
- Challenge others appropriately
- Contribute effectively to group discussion
- Listen and respond appropriately to others
- Explain a problem or a solution to a problem

#### Social and Emotional Aspects of Learning

- Negotiate
- Take turns
- Handle pressure
- Comply with rules
- Cope with competition
- Cooperate with a partner
- Respect others’ boundaries
- Show patience and tolerance
- Cope with winning and losing
- Trust partner’s decisions and actions
- Sit still and allow others time and space
- Resolve conflict with partner or opponents

For further details or to book a Staff Training Session in your school or cluster of schools:

Matt Betts: T: 01296 317200

E: [matt@ebu.co.uk](mailto:matt@ebu.co.uk)

David Adelman: T: 0161 795 6560

E: [info@minibridge.co.uk](mailto:info@minibridge.co.uk)

Why not come along to a practical **FREE** demonstration of Minibridge at **All Saints Church, Waltham Drive, Edgware, Middlesex, HA8 5PQ** on **18 May 2010**.

13.00: Arrive

13.15 - 14.15: First Session

14.30 - 15.30: Second Session

15.30pm: Finish

Please call 01296 317 215 or email [Minibridge@ebu.co.uk](mailto:Minibridge@ebu.co.uk) if you would like register your attendance.