

# a-AQ!N

## Art Based Learning of Language of Origin through Didactic Innovation الثُلُث – Thuluth

### Geometric Scrabble with Arabic Word Roots

Thuluth is an innovative, mosaic-inspired board game designed to enrich Arabic vocabulary and engage learners with the structural beauty of the Arabic language. The name Thuluth (الثُلُث), referring to the common three-letter root system in Arabic and to a classical cursive calligraphic style, reflects the game's dual foundation in language and art. The game combines visual creativity, logic, and linguistic exploration and is suitable for players of all proficiency levels—from absolute beginners to native speakers. The game is played by filling a triangular board with Arabic letters, creating meaningful three-letter roots in every triangular cluster. Players earn points for each valid root, encouraging quick thinking, word analysis, and playful competition.



# ABOUT ALADIN

## PROJECT NAME

Art Based Learning of Language of Origin through Didactic Innovation

## PROJECT NO.

KA210-ADU-239BA964

## COORDINATOR

COTA ONG (FRANCE)

## PARTNER ORGANISATIONS

Comparative Research Network e. V. (GERMANY)

KOOPKULTUR e.V. (GERMANY)

SINDIANE (FRANCE)



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**Participants profile :** 10 years and up

**Maximum Number of Participants:** 6 players

**Game duration:** 45–90 minutes (or above, if the game is created together with the learners)

## Materials:

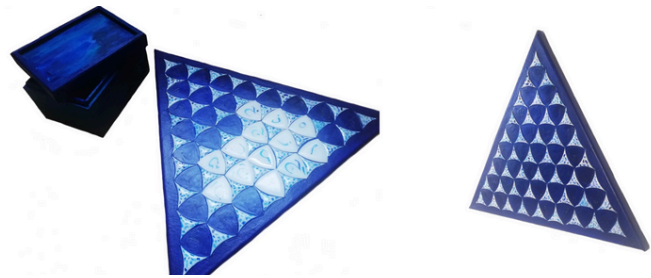
- For Ready-to-Use Play, prepared in advance or DIY version made by the learners:
- A Thuluth board (triangular with 36 central slots)
- 2 letter tiles per Arabic letter (can be handwritten or printed),
- Scoring sheet or notebook, Arabic dictionary (monolingual or bilingual),
- Timer (optional)
- For the game:
- ruler and compass or design software (e.g., Amaziograph),
- Construction paper or cardsto, Scissors or cutting knife,
- Glue or resin (optional, for permanent boards),
- Markers for calligraphy decoration,
- Cardboard, canvas or recycled wooden base (for durable versions)

**Language Skills:** Vocabulary acquisition, Build and reinforce vocabulary, especially verbs, spelling, root analysis, dictionary usage, Explore Arabic root patterns and morphological logic

**Other Skills:** Strategic thinking, Cooperative learning, Foster awareness of Arabic calligraphy and geometric design, Develop cultural appreciation through language-art integration

**Levels:** Suitable for all levels—from A1 to native speakers

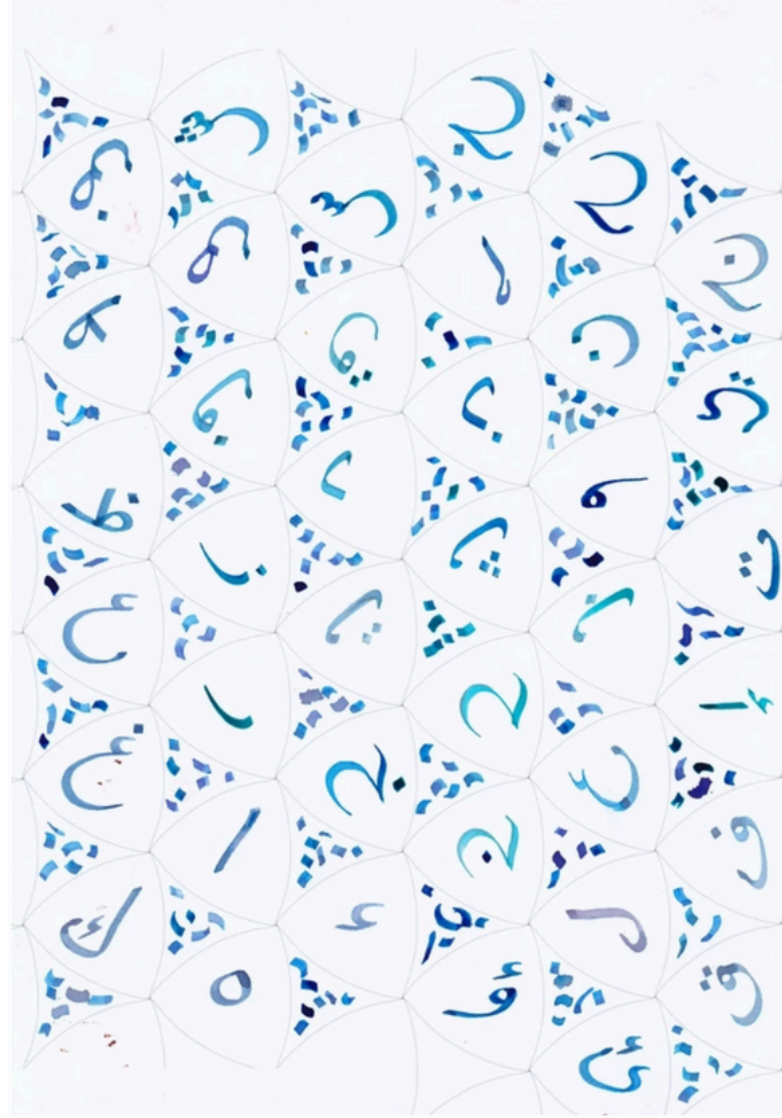
**Developed by / Origin / Original language:** Kata Keresztely COTA ONG/Arabic



## PRAPRE THE GAME

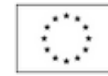
**Time required:** c. 120 min

**Materials:** ruler and compass or design software (e.g., Amaziograph), Construction paper or cardsto, Scissors or cutting knife, Glue or resin (optional, for permanent boards), Markers for calligraphy decoration, Cardboard, canvas or recycled wooden base (for durable versions)



# الثُلُث – Thuluth: Geometric Scrabble with Arabic Word Roots

## Activity 1 Step-by-Step :



a—A Q! N

### 1.Design the Game Board

- Draw a large equilateral triangle on your chosen base (cardboard, canvas, etc.).
- Divide the triangle into 9 parallel strips per side, creating a grid of 81 smaller triangles inside (36 letter tiles and 45 intersection tiles).
  - You can do this manually with a compass and ruler.
  - Or use a digital tool like Amaziograph, which can generate a repeating triangular pattern for you.

### 2. Create the Letter Tiles

- On separate cardstock, write the letters of the Arabic alphabet. You'll need at least two tiles per letter, but more are encouraged for flexibility.
- Decorate the tiles if desired (e.g., calligraphy style, geometric borders).
- Cut out the tiles using scissors or a cutting knife.

### 3. Create the Intersection Tiles

- These are the spaces between the letter tiles that form the triangular connections.
- You can decorate these with geometric or calligraphic designs to enhance the visual appeal of the board.

# الثُّلُث – Thuluth: Geometric Scrabble with Arabic Word Roots

## Activity 1 Step-by-Step :



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### 4. Resin Coating (optional)

- To make the tiles more durable and aesthetically appealing, coat them with resin epoxy.
- Let dry for 24 hours. This gives a shiny, solid finish and makes the game easier to handle.

### 5. Assemble the Board

- Once your tiles are decorated and dry, glue the intersection tiles in place on the board, forming the triangular structure.
- Leave the letter tile spaces blank, so players can place and move the letter tiles during gameplay.
- Double-check the alignment to ensure the triangles are uniform and the game is playable.

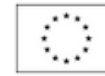
### Alternative Quick Version:

If you don't have materials for a full build:

- Use a large sheet of paper and pencil.
- Draw the triangle and grid as described.
- Write letters directly into the spaces instead of using physical tiles.
- This version is great for quick games or classroom use.

# الثُلُث – Thuluth: Geometric Scrabble with Arabic Word Roots

## Activity 1 Step-by-Step :



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### Tips for Customization:

- Let learners design and decorate their own tiles.
- Use colors to code different letter types (e.g., strong vs. weak radicals).
- Add point values or symbols to certain tiles for game variation
- Use the following “Book of ornaments” or any other resources with ornamental patterns coming from different cultures to inspire you learners and make them learn about geometric design and the art of the ornaments.





Book of Ornaments



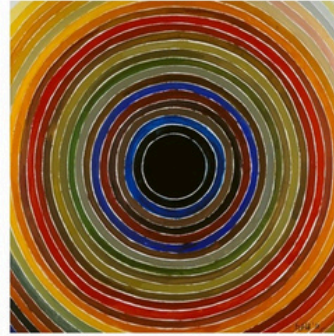
Livre des ornements



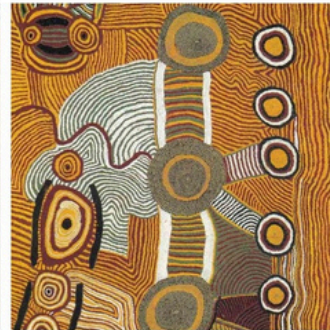
كتاب الزخرفات



ART POUR L'ÉCHANGE SOCIAL



Modern Geometric Art (Australia) ♦ Art géométrique moderne ♦ الفن الهندسي الحديث



Aboriginal Art (Australia) ♦ Art aborigène ♦ فن السكان الأصليين (أستراليا)

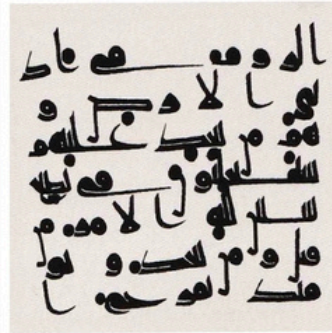


Ceramics Art from Iran ❖ Art de la céramique d'Iran ❖ فن السيراميك من إيران

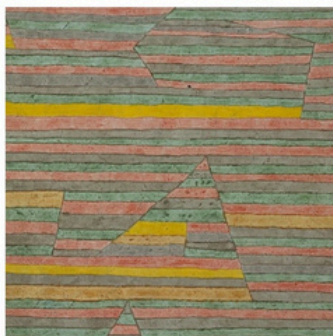
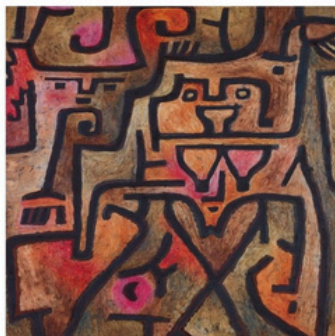


Comtemporary Arabic Calligraphy ❖ Calligraphie arabe contemporaine ❖ الخط العربي المعاصر

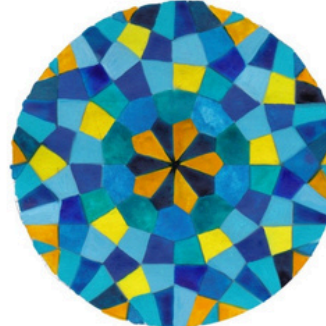
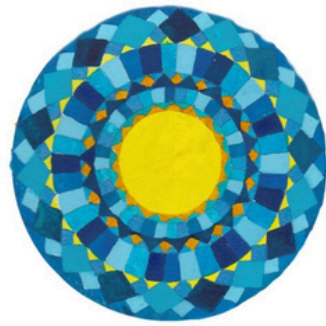
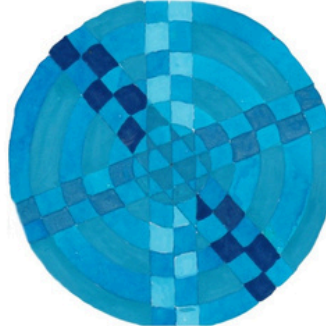




Classical Arabic Calligraphy ♦ Calligraphie arabe classique ♦ الخط العربي الكلاسيكي

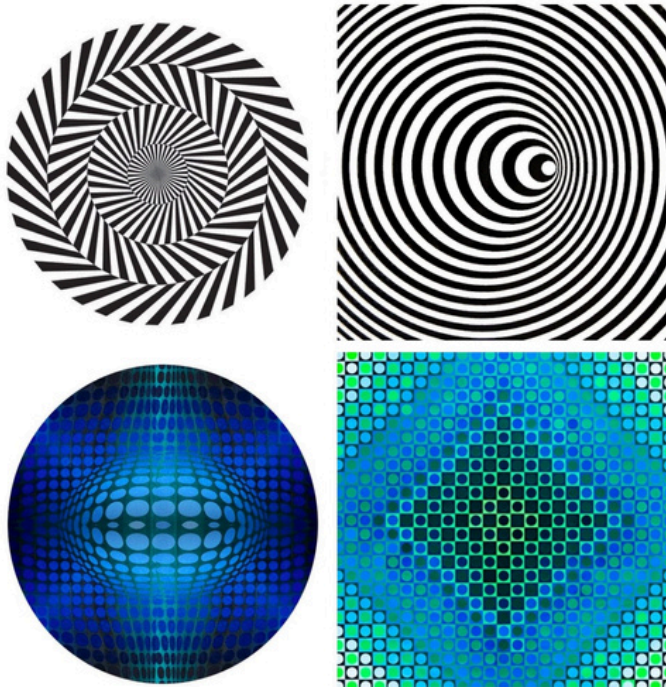


Paul Klee ▽ بول كلي




Sacred Geometric Ornaments ♦ Ornaments sacrés géométriques ♦ زخرفة هندسية مقدسة





The Art of Optical Illusion ♦ Art de l'illusion optique - Victor Vasarely ♦ فن إلخدااع البصري - فيكتور فازاريلي



## PLAY THE GAME - GAME RULES

**Time required:** 45-90 min

**Materials:** A Thuluth board (triangular with 36 central slots), 2 letter tiles per Arabic letter (can be handwritten or printed), Scoring sheet or notebook, Arabic dictionary (monolingual or bilingual), Timer (optional)

# الثُّلُث – Thuluth: Geometric Scrabble with Arabic Word Roots

## Activity 2 Step-by-Step



### 1. Game rules

As you may already know if you have some knowledge of Arabic, most words are built from a three-letter root. This system results in an impressively rich vocabulary and a remarkably logical method of word construction. The rules provide a basic framework—but you can adapt them based on how you want to play, the number of players, and the desired difficulty level.

The objective of Thuluth is to fill all 36 letter spaces within the triangle using existing roots or words. The key rule is that any group of three adjacent letters forming a triangle must create at least one valid root or word. You start by placing letters in one of the three corners of the triangle, like below.

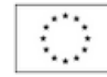


In this version, played by 3 players, we first placed the root ف ع ل (from the verb to do/make) in one of the corners of the triangle.

The first player (A) then added the letter م next to it, in the center, so that it now forms new roots with ع and ل such as:

- عَمِلَ ('amila – to work)
- عِلْم ('ilm – knowledge, science)
- لَمَعَ (lama'a – to shine, to glitter)

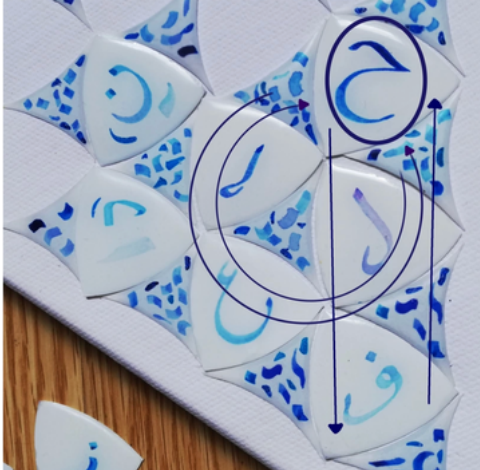
Words can be read clockwise or counterclockwise, and they may start with any of the three letters. To keep scoring simple, you can assign 1 point for each valid root. In this case, player A has earned 3 points.



a-A d!N

Next, the second player (B) placed the letter ح—a kind of jackpot—because the three adjacent letters now form six valid roots, which can be read in all directions:

- حَمَلَ (hamala – to carry)
- حُلْم (hulm – dream)
- لَحْم (lahm – meat)
- حَمْهَمَ (hamhama – to glance or murmur)
- مِلْح (milh – salt)
- مَحَلَّ (maḥall – place, to be barren)



In addition to these six roots formed in the triangle, the letter ح also completes two more roots forming straight lines with ف and ل:

- حَلَفَ (halafa – to swear)
- فَلَحَ (falaha – to split, to cultivate the land)

Please note that linear words (i.e., formed in a straight line) can be read in only two directions (left-to-right or right-to-left), and cannot begin with the middle letter.

Note that linear words (i.e., formed in a straight line) can be read in only two directions (left-to-right or right-to-left), and cannot begin with the middle letter.

B has just won 8 points.





The third player (C) placed the letter د—not a bad choice either, as it creates six different roots:

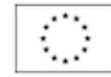
- دَمْع (dam' – a tear)
- دَعَم (da'm – to support)
- عَمَد ('amada – to intend / to support)
- عَدَم ('adam – to lack something)
- مَعِد (ma'id – related to the stomach, rarely used as a verb)
- and حَمَد (hamida – to praise or bless), formed horizontally.



So, player C currently has 6 points.

### Note on spelling and usage:

Remember that you are forming roots, not necessarily full, commonly used words. For example, the verb مَعِدَ (ma'ida – to have a stomach ache) is rare and not commonly used in everyday language. However, you probably recognize the related noun مَعِدَة (ma'ida – stomach). Therefore, forming the root م-ع-د still earns you 1 point.



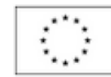
Concerning weak verbs, when one of the three letters forming the root is a “changing vowel” (such as و, ا, or ي), you may choose different rules depending on the level of difficulty you want.

- If you want to make the game more challenging, you should use only the official root. For example, for the verb صَابَ / يُصَيِّبُ (to be right or correct), you must use the و in the root ب و ص, and not an ا, even though it appears in the past tense form.
- If you want to make the game easier, you may allow the use of ا instead of the correct weak consonant, like we did in this game with the verb ذَاقَ / يَذُوقُ (to taste). However, to keep the game fair, such forms only earn half a point.



# الثُّلُث – Thuluth: Geometric Scrabble with Arabic Word Roots

## Activity 2 Step-by-Step :



a–A Q!N

### Letter Tile Rules & Strategy:

You have two tiles for each letter of the Arabic alphabet. However, to make the game more exciting and vocabulary-rich, you may try to use as many different letters as possible.

There are two possible rule variations to encourage this:

- Variation 1: Deduct half a point for each word that contains a letter which has already been used on the board.
- Variation 2: Do not deduct points, but once a letter appears twice on the board, any new unused letter placed afterwards is worth double points.

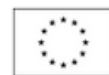
### Dictionary Use – Should You Allow It?

Whether you are a beginner or advanced learner, using a dictionary can be part of the learning process, but there should be clear rules to avoid slowing the game down. Here are a few options:

- Option 1: Limited Use
  - You cannot use the dictionary when placing a tile. You must be confident that at least one valid root will result from your move.
  - You can check for additional roots after placing your tile.
  - To avoid long pauses, set a time limit of 2–3 minutes per turn.
- Option 2: Risk-Reward Rule
  - You are allowed to use the dictionary before or after placing a tile.
  - However, if you claim a root that turns out not to exist, you lose one of your previously earned points.

# الثُّلُث – Thuluth: Geometric Scrabble with Arabic Word Roots

## Activity 2 Step-by-Step :



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### Vocabulary Expansion

This game is a great tool to refresh and expand your vocabulary. Often, while reading Arabic, you encounter words you recognize but have forgotten. Playing Thuluth helps reinforce root meanings.

To further enhance learning:

- Ask each player to explain the meaning of the root they created, either in Arabic or in their native language.
- Alternatively, play in a “Poker-style” mode:
  - Players don’t explain the meaning of their roots unless challenged.
  - If a player doubts the validity of a root, they may ask for proof (e.g., a dictionary definition).
  - If the root exists, the challenger loses one point.
  - If it doesn’t, the player who placed it loses two points (one for the incorrect word and one as a penalty).

### Two-Player Alternative Version

If you're two players and want a variation:

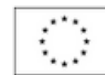
1. Create two identical empty boards.
2. Each player fills their own board independently, without a dictionary. Record each root you create.
3. Then exchange boards. Now, find as many valid roots as you can on your opponent’s board.
4. At the end, compare scores:
  - 1 point per valid root you created or discovered on the other board.
  - The player with the highest total wins.





ADAPTATIONS AND RECOMMENDATIONS

a-AQ!N



Adapting Thuluth to other languages can be both fun and pedagogically valuable! Here are practical tips and strategies for adapting the game's structure and logic to different languages while preserving its educational goals and visual appeal:

### 1. Understand the Linguistic Logic of the Target Language

- Arabic: Built on trilateral roots → ideal for triangle-based logic.
- Romance & Germanic languages (e.g., French, Spanish, English): Use prefix-root-suffix structures or compound word logic.
- Turkish / Finnish / Hungarian: Use agglutinative structures – start with a root and add suffixes logically.
- Chinese / Japanese: Use radicals or syllables as building blocks (e.g., in Chinese, combine two radicals to form a meaningful character).

### 2. Redesign the Gameplay Grid

- Instead of 3-letter triangle roots, you can:
  - Use a hexagonal grid to form compound words or phrases.
  - Use squares or strips for building words with prefixes and suffixes.
  - Keep the triangle format but focus on syllables, word stems, or letter clusters that build meaning.

### 3. Adjust the Rules for Word Formation (example: English, French, German)

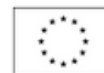
For English:

- Form valid 3-letter base words (e.g., “run”, “fit”, “dig”).
- Use tiles to add prefixes/suffixes: “re-run”, “fitting”, “digging”.
- One triangle = 1 root word + optional transformations.

For French:

- Base on verb conjugations: create groups like “mange”, “manger”, “mangera”.
- Include gendered forms: “beau”, “belle”, “beaux”.

## Adaptations for other languages



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For German:

- Use compound word parts: “Haus”, “Arzt”, “Hausarzt” (house + doctor).
- Allow word splitting across multiple triangles.

### 4. Keep the Artistic and Cultural Element

- Encourage learners to decorate the game using motifs relevant to the language’s culture: (ex. Celtic knots for Irish, ink brush strokes for Chinese, Art Nouveau script for French)

### 5. Educational Goals Should Stay Central - Always design the rules around:

- Vocabulary expansion
- Word formation logic
- Grammar awareness
- Storytelling or translation challenges

### 6. Example Adaptation: French “Triluth”

- Board: triangle grid
- Each triangle = 3 connected syllables or word roots
- Valid combos: “pré” + “par” + “er” → “préparer”
- Points:
  - 1 point per real word formed
  - Bonus if it’s a verb, adjective, or a compound form
  - Use of rare forms (subjunctive, passé simple) gives bonus points!



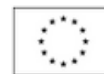
### Before the Workshop:

- Prepare materials in advance: print or create triangle game boards, laminate if possible; prepare letter tiles (cardboard, paper, or wood); ensure a dictionary is available (print or digital).
- Optionally create a vocabulary reference sheet with common 3-letter roots.
- For younger or beginner students, consider pre-selecting a few starter roots for practice.

### During the Workshop:

- Create the game board together: allow students to help construct the board (drawing triangles with a compass or ruler), decorate tiles, and personalize them. This increases ownership and engagement.
- Demonstrate one full round of the game on the board before starting.
- Pair or group students by proficiency to encourage peer learning.
- Use game variants (e.g., Poker-style or 2-player swap) to suit different group sizes and goals.
- Encourage oral use of new roots: ask students to say the root aloud, give an example word, or translate into the heritage/majority language.

## Recommendations for parents



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### Encourage Vocabulary Building

- Help your child keep a small notebook to write down new roots or words they discover while playing.
- Ask them to explain or translate each root after their turn to reinforce learning.

### Use the Dictionary Together

- Look up roots with your child to explore how words are formed.
- Show them how a single root leads to multiple meanings and forms.

### Balance Learning and Fun

- Remind them it's okay not to know every word.
- Praise creative attempts and curiosity—even when they make mistakes.

### Create a Quiet, Comfortable Game Space

- Set up a calm area with good lighting and space for the board.
- Make it inviting by including colored pens, stickers, or decorations for personalized tiles.

### Set Time Limits

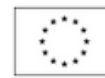
- To keep the game engaging, use a timer (e.g., 3 minutes per turn) to maintain focus and pace.

### Involve Kids in Crafting the Game

- Let your child help decorate the tiles and design the layout.
- It adds ownership and excitement about the game.

### Integrate Art and Language

- Encourage your child to write beautifully or decorate roots with calligraphy-style lettering.
- This connects the artistic heritage of Arabic with language learning.



## Resources

- Find out more about board games to learn Arabic through art : <https://apprentissagedecreatifdelarabe.weebly.com/les-objets.html>

