

3: LESSON PLAN - Aqualin

LEARNING AIMS	<p>Students will:</p> <ul style="list-style-type: none"> ● Engage in cooperative play ● Reflect on their own logical and spatial reasoning ● Gain a basic understanding of game mechanics, rules, fundamental gameplay, scoring, strategies ● Logical reasoning: Investigate the game to learn how to create good, legal moves – getting to know the game (W1) ● Spatial reasoning: Tactilizing (touching, manipulating, moving around, testing out) with the tiles to figure out how to place tiles and move other tiles on the emerging board – getting to know the game (W1) ● Logical Reasoning: Adapting moves to an ever-evolving board (W2) ● Spatial Reasoning: Sliding tiles in order to create your own schools or break up your opponent’s (W2) ● Logical Reasoning: Analyzing the board and tiles to make strategic moves (W3) ● Spatial Reasoning: Arranging tiles in order to create or break up high scoring schools (W3)
MATERIALS	<ul style="list-style-type: none"> ● Enough copies of <i>Aqualin</i> for your class, can play in pairs ● Students need pencils ● Paper copy of scoring sheet ● Reflection sheet
SPECIAL CONSIDERATIONS	<ul style="list-style-type: none"> ● Organize groups according to student needs: Play in pairs, so two on two. Encourage discussion and strategy development. ● One round of Aqualin game play takes takes approximately 20 minutes.
LESSON ACTIVITIES	<p>1. You did an amazing job adapting your game play in last lesson. We saw some great moves and high scoring games. Let’s look briefly at the interesting reasoning you showed in last lesson as you became comfortable with sliding the tiles and adapting your gameplay to your opponents in order to get a high score: <i>Starter image</i> (see below).</p> <p>You have a new challenge!! For the first game today, you will not be competing as partners, but as table teams! Each table team will be working collaboratively in order to see who can create the highest scoring board. HOWEVER, we will be implementing a rule that several of you play with at the same time - once you touch a tile in the drafting pool, you MUST play that tile. So think carefully and work together to analyze all of your moves before you decide how to arrange your boards.</p> <p>Complete Reflection Sheet question #1. After your collaborative game, you can choose if you want to improve on your highest table score strategy or play pair vs pair like you have been in the last two lessons.</p>

	<ol style="list-style-type: none"> 2. Divide students into their groups. <ol style="list-style-type: none"> a. Explore pieces, read rules that come with the game. b. If students want, they could have open play, where all tiles are visible to all players. c. Play! 3. Teacher circulates and prompts student discussion of strategies. 4. Students clean up games and complete reflection sheet.
<p>QUESTIONS/ REFLECTION</p>	<p>Focus Prompts for Lesson 3:</p> <ul style="list-style-type: none"> ● When planning your turn, do you think about sliding first or placing first? ● Are there any parts of the board you try to avoid playing in? Why are these areas of the board harder to play in? ● Do you have a favorite part of the board to trap your opponents pieces in? Why do you like that spot? ● Do you always slide a tile as far as you can? Why or why not? ● Can you think of a time when you might not want to slide a tile? ● Did you look at the tiles first? Board first? ● How do you decide whether to move a tile or not first? ● What are you doing to find a spot to put your tile? ● What did you say to your partner to figure out your next move? ● If you have two good plays, how do you choose? <p>Other questions/prompts:</p> <ul style="list-style-type: none"> ● When your turn starts, how do you decide what piece to play? Use drawings and words. ● Look at the board below and the drafting pool. Let’s say you’re going to put your next piece in the spot where the arrow is pointing. Draw a picture of at least two different tiles that would be a good choice. Explain why both would fit. ● Tell me one interesting thing you learned about Aqualin. Use drawings and words. ● What strategy helps you get a high score in the game? Is there something you do during the game to get a high score? ● How do you know you’re an expert at Aqualin? How would you know if a friend you were playing Aqualin with was an expert at the game?

	<ul style="list-style-type: none">● A strategy I'm testing today is _____. My reason for trying this strategy is _____.● A good move/strategy that my partner shared with me today was _____.● Here's what we did to find the best place to play (draw and explain).● If you have two good plays, how do you choose? Use drawings and words. Convince me your choice is the best move.● For your fourth turn, draw the tile you played. Explain why you picked that tile. Explain what you did to fit it on the board.● These are two different boards that came up in your class. Circle which game board you would rather play on. Convince me why it's a better board! Why is the other board not as good?
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**Last lesson, sliding a turtle or a crab was popular!
Let's look at the reasoning!**

SLIDING A CRAB

Can you analyze Student A's slide?


move and show where you would move it to. Explain why.

I would do it because
You could get 4 points like
You could get 4 crabs

Draw a piece on the board that you would place next,
if you could pick any piece **not** already on the board.

Write the tile description the lines below:

Animal/species: crab Colour: yellow



**Where should the yellow crab be placed? Why?
Try to use good words to say the location related to the
other crab tiles.**

SLIDING A TURTLE

Can you analyze Student B's slide/placement?

I would move that piece because it would make a group of four and four in points is six.

- d) Draw a piece on the board that you would place next, if you could pick any piece **not** already on the board.

Write the tile description the lines below:

Animal/species: turtel Colour: pink



What tile should the colour team move next?

How is Student C's turtle move different?

Can you analyze C's slide/placement?

You can take away a point for the other team, and earn a point.

- d) Draw a piece on the board that you would place next, if you could pick any piece **not** already on the board.

Write the tile description the lines below:

Animal/species: turtle Colour: purple



What tile should the colour team move next?

Reflection Sheet: Aqualin

Your Name: _____ Team Members: _____

1) Arranging Tiles to Get the Highest Table Score!

Today you played one round as a group to get the highest combined table score in the class.

What was the score for: species _____ colour _____ total _____

What was one suggestion a player at your table made that helped make your score bigger?

What was your table's strategy for getting a high table score? How did you play differently to get the high table score?

What is the highest individual score? _____ What is the highest table team score? _____

2) Analyzing the Aqualin Board

- a) Use the board on the right. You are making schools of **ANIMALS/SPECIES**.
Circle a piece you would move and show where you would move it. **Explain** why.



- b) **Draw** a piece on the board that you would place next – it should help the **animals** and **not** be on the board already.

Circle what you placed on the board (animal and colour):

Crab Fish Turtle Starfish Seahorse Jellyfish

Red Pink Blue Green Purple Yellow

OPTIONAL: You can write/draw any other ideas.

Here are some questions from last week. You could check one off and answer below.

___ Did you have fun playing Aqualin?

___ Why are you playing offensive and not defensive?

___ How would you play a tie-breaker?

___ Did you win or lose? How did that happen?

___ What is a good strategy for Aqualin?

___ How do you know if the play you're going to make is good?

___ What are the most points you got in one school today?

___ What were your last few moves? Why did they matter?

___ What have you understood in the game so far?

___ Which do you like to pick more, animal or colour? Why?

___ Can you change the rules to "place then move"? Why is this a good rule change?

___ What would happen if you could move twice?

___ What if you can change your role in the middle of the game?

___ What is a key word for the game?

___ Do you think playing Aqualin helps you learn?