

4: LESSON PLAN - Shifting Stones

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: Investigating game play to get to know the rules and to decide what turn to take (W1) ● Spatial reasoning: Become aware of their orientation to the board and how that impacts how they score (complete/match) cards in their hand to the game board (W1) ● Logical reasoning: Analyze their cards against the board to decide what patterns to create on the board (W2) ● Spatial reasoning: Comparing patterns on cards and locating tiles on the board to use to create the same pattern on the board (W2) ● Logical reasoning: Analyzing the movement to have the most efficient turn (W3) ● Spatial reasoning: Moving (sliding, reflecting) tiles to score pattern cards strategically (W3) ● Logical reasoning: Analyzing the board to create tile movement to have the most efficient turn (W4) ● Spatial reasoning: Visualizing where tiles are moving for efficient turns (W4)
MATERIALS	<ul style="list-style-type: none"> ● Enough copies of <i>Shifting Stones</i> for your class, 4 students/teams of 2 per game ● Pencil for scorekeeping and pencil crayons for reflection sheet ● Scoresheet (each group gets 1) ● Reflection sheet ● Starter image(s)
SPECIAL CONSIDERATIONS	<ul style="list-style-type: none"> ● Students could switch which positions they sit in relative to north (change orientation) and switch weekly who starts ● Ideas for cooperative game play: <ul style="list-style-type: none"> ○ Play as a team for highest team score ○ Pair up with a team member and discuss strategies and turns ○ Play with open cards → discard cards to swap and flip tiles and set up fellow team players
LESSON ACTIVITIES	<p>1. Last week we were focused on analyzing both the tiles in play and the pattern cards in your hand in order to locate which flips and swaps would score the highest points. The speed of your play shows that you're really good at making those flips and shifts/swaps. Part of it is about analyzing the board.</p> <p style="text-align: center;">Here's a bit of a different way of analyzing the Shifting Stones game:</p>

	<p>what if you got to decide where to put a few tiles based on the cards in your hand? We think it would make you visualize – or see in your mind – possible spots. Let’s try one together: Starter Image [see below].</p> <p>Note: students could get the game out and model it with playing tiles (students spending time with and manipulating the tiles.)</p> <ol style="list-style-type: none"> 2. Divide students into their groups to play. <ol style="list-style-type: none"> a. Explore pieces, read rules that come with the game b. Could have open play - all tiles/cards visible to all players 3. Teacher circulates and prompts. 4. Student discussion of strategies. Encourage students to ask each other the questions and to explain what they are doing on a turn. <ol style="list-style-type: none"> a. Why did you choose to do that? b. Could you have tried a different strategy? c. How many points did that move equate to? 5. Ask students to complete the reflection questions after class.
<p>QUESTIONS/ REFLECTIONS</p>	<p>Questions for students/prompts:</p> <ul style="list-style-type: none"> ● Did you find there was a large difference between the number of flips and swaps you made? ● Which type of move is easier to use when you plan out your turn in your head, flipping or swapping? ● When trying to fit your pattern cards to the tiles on the board, do you think of flipping or swapping first? ● Did you manage to pay attention to the order of the moves you took in your turn? What made it easy or difficult to do so? ● Did you and your partner create roles for each other in your team? If so, what were they and did they help/how? ● Is it possible to plan your next move before your opponent takes theirs, why or why not? ● What clues about your opponents’ moves can you find by analyzing the cards they have already scored and the patterns they are making? ● Is it possible to predict your opponent’s next move in shifting stones? Why or why not? ● If it is possible to predict your opponent’s next move, is there a way to make sure you can maximize your own score whilst limiting theirs? <p>Other questions to consider:</p> <ul style="list-style-type: none"> ● Show a sample game board. What is your next move? Why did you do

	<p>that?</p> <ul style="list-style-type: none">● Which strategy did you use and why?● Did you plan for future turns or just make turns as you could?● Did you hold on to cards or discard them?● What did you find the hardest? What did you find easiest?● Which tile grids were easiest? Which tile grids were hardest to score?● Did you try to score the hardest tile grids?● What is a strategy you would like to try next time?● How did you play with your team members? Did you help them? Or ask for help?● Are you playing to win? Do you play competitively? Do you celebrate your friends' wins?● How might this connect with other learning or experiences? Have you played this game before? Have you played other games with your family? Which ones?● Do you enjoy playing games? Why or why not?● Do you think this is the ideal group size to play this game? Why or why not?● Are there any other age groups who you think would enjoy this game?● What did you find challenging?● If you could modify the game, what would you do? Example: Add or take away cards or tiles.● Did you see any strategies that your teammates used that you would like to try next time?● Draw your last move showing which tiles you swapped/turned and which cards you scored.
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**The grid is missing 1 Sun tile, 1 Horse tile and 1 Tree tile.
Where should you put the tiles? How did you decide? What did you see?**

Here are your cards:



Here is the board:



How would you play your cards? Why? What is your score?

Reflection Sheet: Shifting Stones

Your Name: _____ Team Members: _____

1) Analyzing Missing Tiles

The grid beside is missing 2 fish/bird tiles, and 1 seed/tree tile.

a) Draw the missing 3 tiles in the grid below so that the player gets the **highest score**. Draw, and/or use colors or words (“fish” or “bird”; “seed” or “tree”) to place tiles in starting spots. Then, play the cards below.



b) How many points did you score in part a)? _____

c) How did you decide where to put the 3 missing tiles? What were you seeing?

d) Describe the steps in your turn. Why did you do that?

2) Convincing Us with Your Strategies

What two tips would you give someone who was just learning to play this game? Use words & drawings:

Tip 1:

Tip 2:

OPTIONAL: If you could change the game, how would you change it?