

2: 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)
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"> ● One round of Shifting Stones game play takes approximately 20 minutes. ● 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 ACTIVITES	<p>1. Last week when you were playing, you saw the board in different ways because of your orientation. What different places (compared to the board) did you sit? What are a few things you learned about the game?</p> <p>This week, you'll keep playing Shifting Stones and getting more strategic by analyzing your cards with the board. Analyzing is one way of thinking mathematically, and so is comparing and locating.</p> <p>Let's take a look at Student A and B's thinking from last week and see what math thinking we can do together: <i>Starter Images</i> [see below]. [Just note that A wouldn't get the 1-point card because of the orientation.]</p> <p>What does analyze mean? How would it help you win a game? What do</p>

	<p>you think locating means? When do you locate in Shifting Stones?</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 after finishing gameplay</p> <ul style="list-style-type: none"> ● Show a sample game board. What is your next move? Why did you do that? ● 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? <p>Other questions to consider:</p> <ul style="list-style-type: none"> ● 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.

	<ul style="list-style-type: none">● 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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There were two ways to get the 3-point card. Let's take a look!

Student A's Move:

Why did you do that?
 Because it was the card I saw first. And because it is a 3 so I can get 3 points from it.

Student B's Move:

Why did you do that?
 Although I could do this card, the 3-pointed card was available for me. The 5 points would be too hard. I kept the 5 points because the people after me could get me to an advantage.

- How are these moves different? Same?
- What do you do when you compare the cards to the board? How? Did any of you rotate your cards last week to compare? Why might that help?

- How can you describe the **location** of the red tile? How important is it to locate tiles on the board?
- Student B was thinking about their next turn in keeping the 5-point card. What cards are worth keeping?

Reflection Sheet: Shifting Stones

Your Name: _____ Team Members: _____

1) Analyzing Pattern Cards & the Board: Your Next Move

What is your next move? Please draw in!

Cross off the cards you would discard. Use arrows to swap or flip tiles. Circle the card(s) you scored.

The image shows the following components for the Shifting Stones game:

- A dashed box labeled "Discard Pile" with a "SHIFTING STONES" logo below it.
- A deck of cards with a "THE GUIDE" label, showing a grid of pattern cards.
- A 3x3 grid of pattern cards with various designs: a sun, a bird, a fish, a dragon, and abstract patterns.
- A "Your Hand" section with four cards labeled "Card 1" through "Card 4". Each card shows a 3x3 grid of tiles with different numbers and patterns.

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

How many points did you score? _____

2) Comparing Pattern Cards and the Board

a) At the beginning of your turn, it's important to figure out which pattern cards you could score during your turn. Circle what you looked at first when you played today:

your pattern cards

tiles/board

What did you do when playing to compare the cards in your hands with the tiles on the board?

b) [If students have played Qwirkle] Both Qwirkle and Shifting Stones have tiles/cards to organize in your hand. What did you do with your cards today to help make good moves? Explain with pictures and words.