2: LESSON PLAN – Cloud City

LEARNING AIMS	Students will: ● Engage in cooperative play ● Reflect on their own logical and spatial reasoning ● Gain a basic understanding of game mechanics, rules, fundamental gameplay, scoring, strategies, cooperative principles, increase mental math skills, number sense skills ● Logical reasoning: **Investigating** the game mechanics to figure out how to build lots of walkways, keeping to a 3 by 3 city size (W1) ● Spatial reasoning: **Tactilizing** the tiles, towers, and walkways to figure out how to develop a 3 by 3 city (W1) ● Logical reasoning: **Predicting** where tiles and walkways will end up in their city (W2) ● Spatial Reasoning: **Visualizing** possible final cities, with tile and walkway placements (W2)
MATERIALS	● Enough copies of Cloud City for your class (3-4 students per game) ● Whiteboard and marker ● Cloud City Scorecard (one per student) ● Condensed rules sheet – Cloud City How to Play
SPECIAL CONSIDERATIONS	● Grouping the students in either the same or different groups as last class. Play in pairs to encourage strategic play. ● One round of Cloud City game play takes approximately 30 minutes.
LESSON ACTIVITIES	1. In the last class, you learned how to play Cloud City and were figuring out where to place the city tiles to get walkways to score points. I heard a lot of you talking about **testing** out where to put tiles and walkways – keeping using those awesome words from our reasoning wheels to explain your math thinking! You score points with your walkways. However, your walkways depend on where you put your city tiles. So, today we want you to **predict** where tiles will end up in your final city and **visualize** the best places for city tiles and walkways. That might help you plan in advance to get a higher score. Let's try it together, looking at a choice Ibk & Jacs had during their game and then visualizing with their final game board (starter image). [Note: pages are formatted so the students do not see "ahead" at the bottom of the screen to the next page.] Here are a few ideas you included last week to place city tiles Twist it — Examine it Plan (for two 8s) — Slide it in Test / plan — Turn to find a good spot Find farther away spots — Rotate before placing Distance city tiles — Look over the board

	Look for bridge spots Connect brown, build under Ask a partner Try for lots of bridges Only one rule reminder: You can only build a maximum of 2 walkways from a single tower. 2. Divide students into their groups of 4, to play 2 on 2. a. Recap rules that come with the game where needed b. One on one group engagement for questions and clarifications c. Once students feel comfortable, they may start an official round. 3. Hand out the reflection sheet so students know what questions to think about. They will stop 4 turns into their game to respond to #1. 4. Teacher circulates and prompts student discussion of strategies. Encourage students to ask each other the questions listed on the "How to Play" sheet (see below). a. Why did you choose to place that piece there? b. Could you have tried a different strategy? c. How many points did that move equate to? 5. At the end of the game time, encourage students to complete the reflection sheet.
QUESTIONS/ REFLECTIONS	Questions for students/prompts: ● How are you going to obtain the most points? ● Did the player with the highest buildings get the most points? ● What strategy did you use to get the highest points? ● How are your individual boards the same? How are they different? ● What was the most challenging part of this game? ● If you could make one change to the game, what would it be? Why? ● How many 8-point walkways do you think someone could build for this game? ● BEFORE YOU TALLY POINTS: Compare your game board to your neighbor. Estimate who won. ● You get to design a new tile for the game, what would you design?