# Lesson 5: Tiny House: Cost

### Standards Alignments

|  |  |
| --- | --- |
| Addressing | 3.NBT.A.2, 3.OA.D.8 |

### Teacher-facing Learning Goals

* Solve problems about the cost of finishing a room in a tiny house.

### Student-facing Learning Goals

* Let’s calculate the cost of finishing a room in a tiny house.

### Lesson Purpose

The purpose of this lesson is for students to apply what they’ve learned about operations to calculate the cost to finish a space in a tiny house.

In a previous lesson, students used what they learned about area and perimeter to design a tiny house. In this lesson, they apply their knowledge of operations to calculate the cost of finishing one of the rooms of their tiny house. Students engage in aspects of mathematical modeling as they make decisions about quantities, relate measurements and costs, and interpret their results in context (MP4).

If students need additional support with the concepts in this lesson, refer back to Unit 3, Section A in the curriculum materials.

### Access for:

###  Students with Disabilities

* Action and Expression (Activity 1)

###  English Learners

* MLR8 (Activity 1)

### Instructional Routines

Estimation Exploration (Warm-up)

### Materials to Gather

* Materials from a previous lesson: Activity 1

### Lesson Timeline

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| --- | --- |
| Warm-up | 10 min |
| Activity 1 | 35 min |
| Lesson Synthesis | 10 min |
| Cool-down | 5 min |

### Teacher Reflection Question

What strategy did you anticipate today? Which did you not anticipate?

## Cool-down

(to be completed at the end of the lesson) 5min

Find the Cost?

### Standards Alignments

|  |  |
| --- | --- |
| Addressing | 3.OA.D.8 |

### Student-facing Task Statement

What is the cost of 18 square feet of tile and kitchen plumbing? Explain your reasoning.

|  |  |
| --- | --- |
| item | cost |
| flooring: tile wood carpet | $5 for each square foot$4 for each square foot$2 for each square foot |
| paint | $25 for each gallon(up to 400 square feet) |
| bathroom plumbing | $379 |
| toilet | $138 |
| bathroom sink and faucet | $112 |
| kitchen plumbing | $253 |
| kitchen sink and faucet | $227 |
| cabinets | $90 for each foot |
| shelving | $20 for each foot |
| dishes, cups, forks, spoons, etc. | Prices vary.Research or estimate cost. |
| dishwasher | $389 |
| portable stove | $174 |
| furniture | Prices vary.Research or estimate cost. |
| compact washer-dryer combination | $225 |
| bed | $189 |

### Student Responses

$343. Sample response: Tile flooring costs $90, because $18×5$ is $10×5+8×5$, which is $50+40$ or 90. Adding 253 and 90 together gives 343.