

DMT INSTITUTE

Developing Mathematical Thinking Institute (DMTI)



Professional
Development



Curricular
Resources



Assessment

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About the DMTI Targeted Activities

These DMTI Targeted Activities modules are designed to be played or completed with a partner or in small groups. These supplement the Primary Math Assessment and DMTI curricular materials.

The activities are intended for teachers or caregivers to play with children to build necessary math skills and math language. Each activity can be played for 10 to 20 minutes. And if there are additional activities in a module, they are built to be more advanced.

PMA – Grade 1

Interpreting Context

Interpreting Context

What's involved:

- Seeing quantities and operations
- Understanding what the child knows or doesn't know in the problem
- Problem solving
- Seeing patterns

Why it matters:

- Builds critical thinking and problem solving skills
- Gives insight into what a student understands and how the student thinks
- Highlights misconceptions that may be hidden with symbolic calculations

Interpreting Context

Directions:

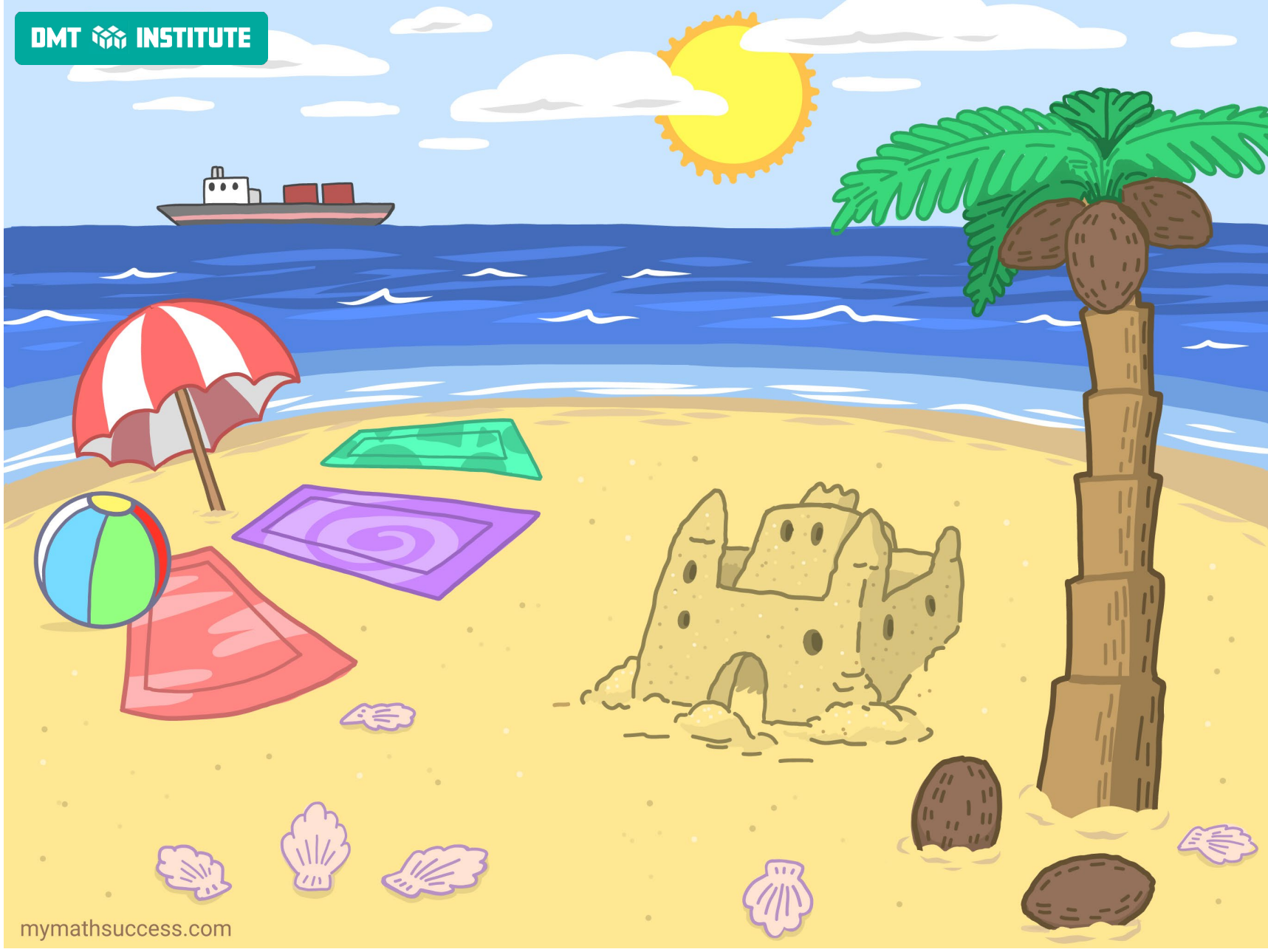
- Print the beach scene template or the set of questions.
- Complete activity I and then II

Interpreting Context

Activity I:

- Look at the beach scene (printed or online).
- Ask the child what they see in general. Make up a story.
- Next, ask what math statements they can make. (Take turns counting or asking addition or subtraction questions.)

Template: Beach Context



Interpreting Context

Activity II:

- Have your child look at the beach scene and then ask the following set of questions.

Interpreting Context

1. How many seashells are on the sand?
2. How many of the seashells are pointing to the right? How many are not?
3. Some people picked up 21 seashells from the beach. Their hands were so full that they dropped 6 of the shells. How many shells made it to the bucket?
4. A child spotted 15 seashells on the beach. 6 of them were pink and the rest of them were white. How many white seashells did the child see?



Interpreting Context

5. How many coconuts are there altogether? How do you know?
6. How many sections are on the trunk of the coconut tree? If there are 3 coconut trees on the beach, how many trunk sections would you count?
7. 9 coconuts fell onto the sand. Some children came along and picked up some of the coconuts, leaving 2 still on the ground. How many coconuts did the children pick up?



Interpreting Context

8. How many containers do you see on the ship?
9. There are a total of 12 red containers on the ship. 2 of them are on the upper deck and the rest are below deck. How many red containers are below deck?
10. If there are 12 containers and each container holds 2 motorcycles, how many motorcycles are on the ship?



Interpreting Context

11. How many small and large clouds are there in the sky?
12. There are 3 large clouds and 6 smaller clouds floating in the sky. Each of the larger clouds split into 2 smaller clouds. How many clouds would there be in the sky now?
13. There are 3 large clouds and 6 smaller clouds in the sky. How many fewer large clouds are there than smaller clouds?



Interpreting Context

14. How many stripes are on the umbrella?
15. Each umbrella has 10 stripes. If there are 5 umbrellas at the beach, how many total stripes would there be?
16. There are 4 boys, 3 girls and 2 adults at the beach. If each person brings a beach ball, how many beach balls would there be in all?
17. How many beach balls would there be if each person brought two each?



Interpreting Context

18. It took 8 buckets of sand to make the castle walls and 3 buckets to make the towers. How many buckets of sand would it take to make 2 sand castles?
19. If 2 sand crabs were peeking out of each window of the castle, how many total sand crabs are peeking out of the windows?
20. There are 8 people in a family coming to the beach. If 2 people can sit on a beach towel, how many more towels do we need so everyone will be on a beach towel?





“The Developing Mathematical Thinking Institute (DMTI) is dedicated to enhancing students’ learning of mathematics by supporting educators in the implementation of research-based instructional strategies through high-quality professional development, curricular resources and assessments.”

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