

Counting Turtle Eggs

Grade 2 - Mathematics



Lesson Details

Grade Level:	2	Curriculum Links:	Mathematics	Time Needed:	40 minutes – 1 hour
Learning Goal	To practice basic number sense and numeration skills. As well as counting, using tools (ping pong balls), and relating story to real-world contexts (turtle nest protection).				
Success Criteria	By the end of this lesson, students will have practiced counting by 1s, 2s, and 5s using tools, practiced writing out numbers as words, and learned the importance of protecting turtle nests.				
Specific Expectations	<p><i>Number Sense and Numeration</i></p> <ul style="list-style-type: none"> • Represent, compare, and order whole numbers to 100, using a variety of tools and contexts; • Read and print words as whole numbers to 20, using meaningful contexts; • Determine, using concrete numbers, the 10 that is the nearest to a given two-digit number, and justify the answer; • Solve problems involving the addition and subtraction of whole numbers to 18, using a variety of mental strategies; • Describe relationships between quantities by using whole-number addition and subtraction; • Solve problems involving the addition and subtraction of two-digit numbers, with and without regrouping, using concrete materials. 				
Materials Needed	Worksheet (attached), Pencil, 100 Ping Pong Balls, 2 Buckets, Sand (optional), 10 Egg Cartons (optional), Turtle Cut-Outs (attached) or a Turtle Stuffed Animal, Fox Cut-Outs (attached) or a Fox Stuffed Animal.				

Lesson Description

Overview	Using turtle eggs (ping pong balls) found in a turtle nest (sandbox or other container) students will practice adding and subtracting by counting the number of eggs in the bucket before and after a fox eats some eggs.
Activity	<ol style="list-style-type: none"> 1. Split your classroom into 2 groups, giving each group a nest of up to 50 eggs (ping pong balls). These eggs can be buried in sand like a real nest, so the children can extract them, or placed in a bucket without sand. Hand out 5 egg cartons as well for students to place their eggs in as they discover them in the bucket. 2. Begin by explaining that turtles are a species at risk, and one of the things harming their population is predation of nests by foxes, skunks, and racoons. 3. Using the turtle cut-out (or stuffed animal), set the story that our turtle has just laid a nest of eggs. 4. In supervised groups, each group must count how many eggs are in each nest. First, counting by 1s, then 2s, then 5s making visual piles of eggs if needed. 5. Using the attached worksheet, the students will write down the number of eggs found and use their numeration skills to solve problems. 6. Using the fox cut-out (or stuffed animal), set the story that a predator has come around to eat 20 eggs. Have the groups count to 20 and remove those eggs – you can also have the students practice counting backwards from 20 instead. 7. Bring the class back together as one group, and have the students add the two predated nest numbers together.

Lesson Description

	8. End by discussing how we can help protect turtle eggs from predation.
Background Information	<p>The Common Snapping Turtle is the largest freshwater turtle in Ontario. In the spring, female snapping turtles venture out of the water to find suitable locations to nest. This often occurs on sandy banks, or within the gravel on roadsides. This is a very vulnerable time for laying snappers, as they are exposed cars which can harm them. After the nests are laid, predators smell the freshly laid eggs and might dig into the nest eating some or all of the eggs.</p> <p>To help protect turtle nests from predation, nests can be protected with a cage. If nests cannot be caged (on a road, driveway, etc.) you can call the Turtle Guardians hotline (found on the Turtle Guardians website https://www.turtleguardians.com/contact/). In certain areas of Ontario, Trained Conservation Technicians may come to the turtle nest and collect the eggs to be incubated. Turtle eggs will incubate for at least 60 – 90 days before they hatch – and if in the care of a technician, they will return the baby turtle to where they were originally found.</p>
Blacklist Masters	<ul style="list-style-type: none"> • Worksheet (attached) • Turtle and Fox Cut-Outs (attached) • Video Link(s): Turtle Nesting • For more information, please visit https://www.turtleguardians.com/turtle-nesting/
Place-Based Learning	Learning as a group in the classroom, or outside in a field with sand/gravel access as turtle nests are known to occur where there are sand and gravel deposits. Students will become Turtle Guardians themselves as they investigate a turtle nest and gain real life experience learning how to help the eggs.
Inquiry Based Learning	<p>Using Guided Inquiry, the students will work together in their groups to count the number of eggs before and after the fox eats some.</p> <p>Ask the students:</p> <ul style="list-style-type: none"> • How can we help protect turtle eggs from being eaten by predators like the fox? • Have you ever seen a nesting turtle at the side of the road or near your home?
Turtle Stories	Have you ever seen a turtle nesting, or a predated nest? Next time take a picture and share it with us. Try building a nest cage protector for the next time you see a turtle nest. Students are encouraged to share their experiences, pictures, and worksheets on the Turtle Stories website, found here: https://www.turtlestories.ca/
Turtle Guardian Program Links	After completing Level 1 (Ontario Turtle Identification) of the Turtle Guardian Program , students can move onto Level 2 (Wetland Watchers). In this level the students learn the importance of protecting, and how to protect turtle nests. They then can become official nest sitters (when accompanied by an adult) and learn how to build a nest cage protector. For more information, please visit https://www.turtleguardians.com/what-is-a-turtle-guardian/

My Notes

Counting Turtle Eggs

Grade 2 – Mathematics

Turtle and Fox Cut-Outs



Counting Turtle Eggs!



1

Wow! You've just found a turtle nest!

There are 50 turtle eggs in my nest.

Write this number in words:

 Fifty

2

If you have 26 eggs in a nest, what is the nearest 10?

30

Write this number in words:

 Thirty

3

Oh no! A fox came around and ate 20 of your eggs. How many eggs do you have now?

$$\underline{50} - \underline{20} = \underline{30}$$

There are 30 turtle eggs in my nest.

4

Can you **draw** the turtle eggs that are in your nest?

5

Join another group. Can you add your turtle egg number to the other group?

$$\underline{30} + \underline{30} = \underline{60}$$

There are 60 turtle eggs in our nest.

6

How can we help protect turtles from predators like foxes?

- Cover nest with a cage
- Call a Turtle Guardian or Trained Conservation Technician

Did you know that Common Snapping Turtles can lay about 50 eggs? And each egg looks like a ping pong ball, just like what you're counting today!





Counting Turtle Eggs

7 A Snapping Turtle has laid 13 eggs. Nearby, another turtle has laid 5 eggs. How many eggs are there in total?

Draw the eggs below to help you with your math.

$$13 + 5 = 18 \text{ eggs}$$

8 A Painted Turtle laid 15 eggs, but a fox came along and ate 10 eggs.

How many eggs are left?

$$15 - 10 = 5 \text{ eggs}$$

9 Eastern Musk Turtle's lay fewer eggs than other turtle species. 3 different Musk Turtles laid 3 eggs each.

Use multiplication to find out how many eggs there are in total.

$$3 \times 3 = 9 \text{ eggs}$$

10 There is a total of 12 eggs. 4 Snapping Turtles laid nests, each with equal amounts of eggs.

How many eggs did each turtle lay? Use division to find out.

$$12 \div 4 = 3 \text{ eggs}$$

Counting Turtle Eggs!



1 Wow! You've just found a turtle nest!

There are _____ turtle eggs in my nest.

Write this number in words:

2 If you have 26 eggs in a nest, what is the nearest 10?

Write this number in words:

3 Oh no! A fox came around and ate 20 of your eggs. How many eggs do you have now?

_____ - _____ = _____

There are _____ turtle eggs in my nest.

4 Can you **draw** the turtle eggs that are in your nest?

5 Join another group. Can you add your turtle egg number to the other group?

_____ + _____ = _____

There are _____ turtle eggs in our nest.

6 How can we help protect turtles from predators like foxes?

Did you know that Common Snapping Turtles can lay about 50 eggs? And each egg looks like a ping pong ball, just like what you're counting today!





Counting Turtle Eggs

7 A Snapping Turtle has laid 13 eggs. Nearby, another turtle has laid 5 eggs. How many eggs are there in total?
Draw the eggs below to help you with your math.

8 A Painted Turtle laid 15 eggs, but a fox came along and ate 10 eggs.

How many eggs are left?

9 Eastern Musk Turtle's lay fewer eggs than other turtle species. 3 different Musk Turtles laid 3 eggs each.

Use multiplication to find out how many eggs there are in total.

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