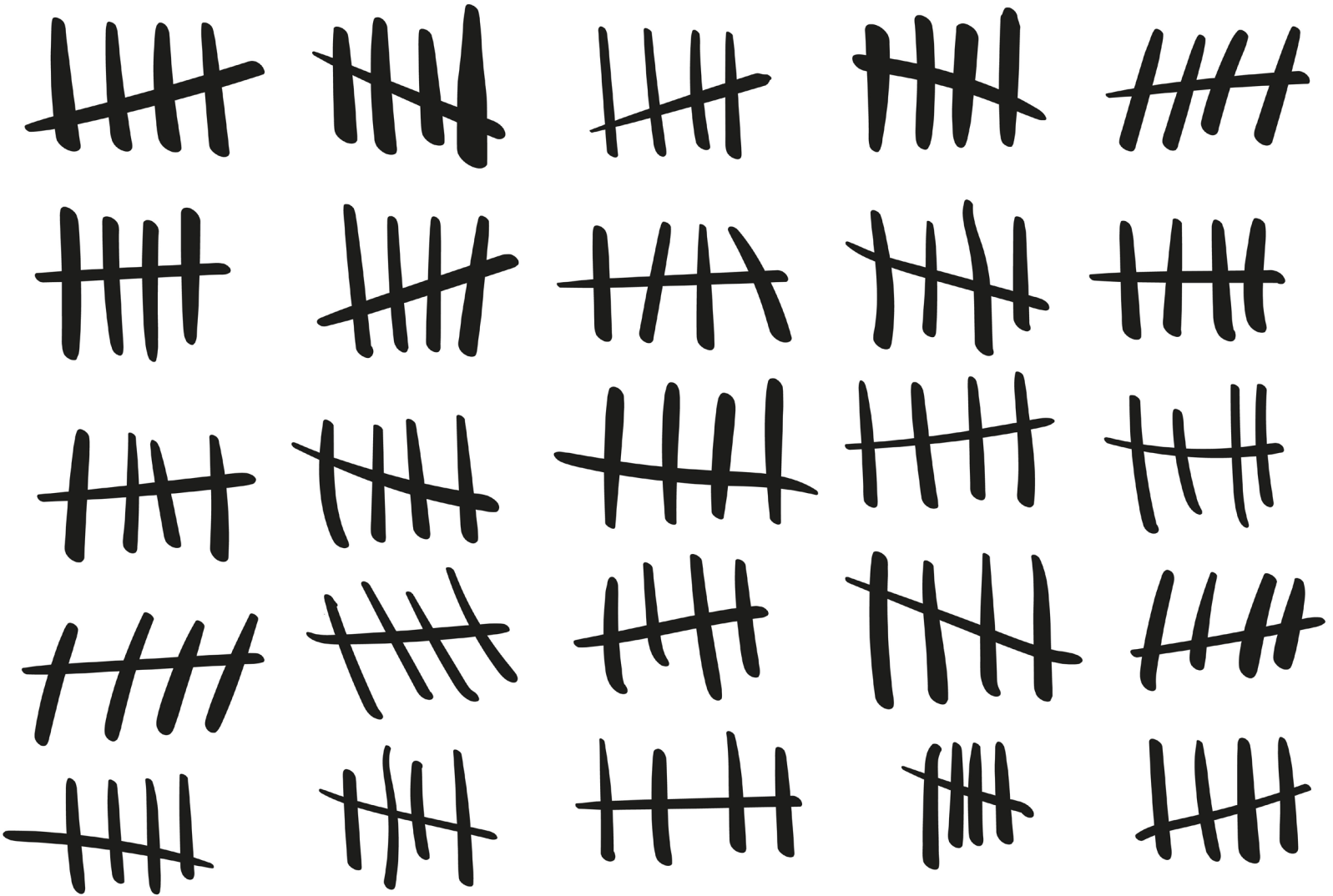


USING TALLY MARKS FOR COUNTING



GRADE **1-2**

- Teacher Guidelines ▶ pages 1 – 2
- Instructional Pages ▶ pages 3 – 4
- Activity Page ▶ page 5
- Practice Page ▶ page 6
- Homework Page ▶ page 7
- Answer Key ▶ pages 8 – 9

Classroom Procedure:

1. Ask students: How do you count things or people? How do you keep score for a game that you play with a friend?
2. Allow for responses and discussion. Ask: If you and your friend were all alone on an island and wanted to keep track of the days or hours, how would you do it?
3. Allow for responses and discussion. Ask students if they have ever heard of tally marks.
4. Allow for responses and discussion. Introduce *Using Tally Marks for Counting* to the class.
5. Distribute *Using Tally Marks for Counting* content pages. Read and review the information with the students. During the lesson, give students the opportunity to demonstrate the correct use of the tally marks. Save the final question for the lesson closing. Use the additional resources to enhance understanding.
6. Distribute Activity page. Read and review the instructions. Distribute about 50 toothpicks or similar objects to EACH student to use as “tally marks”. Allow sufficient time for students to complete each of the directions. Encourage students to be creative for direction number 3..
7. Once completed, conduct a class discussion allowing students to share the results with classmates.
8. Distribute Practice page. Check and review the students’ responses.
9. Distribute the Homework page. The next day, check and review the students’ responses.
10. In closing, ask students: *Think about some ways you could use tally marks today. How will you use them? Do you think it is easy or difficult to use tally marks? Why?*
11. Allow for responses and discussion. Give hints to students about how they could use tally marks. Encourage students to give valid reasons as to why the use of tally marks would be easy or difficult.

Approximate Grade Level: 1 – 2

Objectives: The students will be able to use tally marks for counting.

State Educational Standards*

LB.Math.Content.1.NBT.A.1

None for Grade 2

Class Sessions (45 minutes):

1 to 2 class sessions.

Teaching Materials/Worksheets:

Using Tally Marks for Counting content pages (2), Activity page, Practice page, Homework page

Student Supplies:

Toothpicks or similar, handouts

Prepare Ahead of Time:

Toothpicks for activity, pair students.

Copy handouts.

Options for Lesson: Students may work alone or in groups for the activity. The students use each other’s new tally marks to count objects in the classroom. Take students outdoors, and if possible, they use chalk to count things using tally marks. Students create a 3D model of tally marks showing a specific number from 5 to 9. Students create a drawing using tally marks as the basis for the drawing. Introduce other counting methods of the past. Walk students through the school to count things using tally marks, such as doors, people, lockers, etc.

*Lessons are aligned to meet the education objectives and goals of most states. For more information on your state objectives, contact your local Board of Education or Department of Education in your state.



Teacher Notes

The lesson introduces students to the use of tally marks for counting. Students often use their fingers for counting but can transition to the use of tally marks or other hands-on objects for counting items, keeping track of scores, and for other purposes. The lesson may be used in conjunction with other counting lessons.

Tally Marks

You have used your fingers or other objects for counting. You might count pieces of candy, books you read, people in your family, the score of a game, or the cars you pass while riding on the bus. Everyone counts things- children and adults.

Sometimes the only thing different is HOW people count things. You can count using your fingers. People use calculators to add numbers together. Computers and smartphones could be used for counting too. However, there is another very easy way to count things. You can use tally marks.

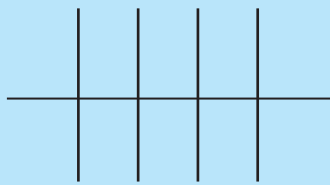
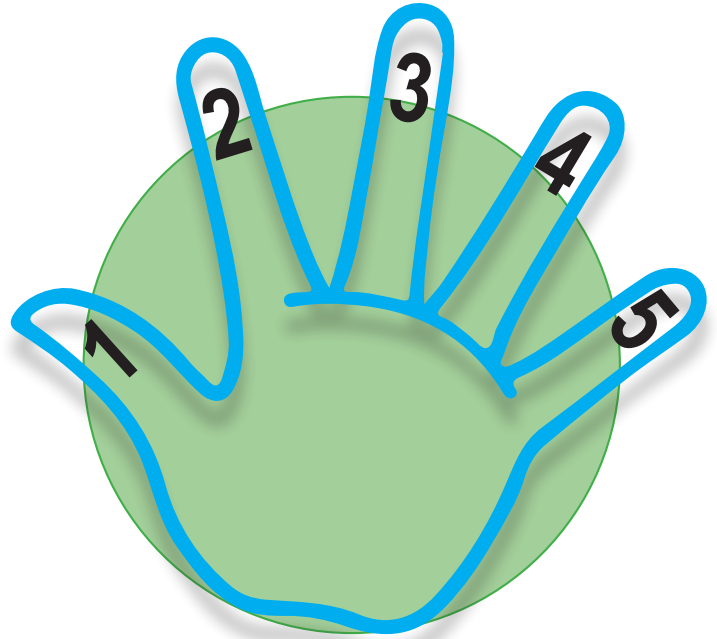


Figure A

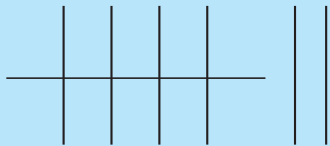


Figure B

Tally marks are a form of numerals used for counting. They are sometimes called **hash marks** too. Many people use tally marks to keep scores for a game or sport. The tally marks are used and are not erased until the game ends.

Tally marks are usually used in groups of 5. Groups of five are used because they are easier to count. To use tally marks, you simply draw small vertical lines as you count, and then when you reach the number 5, you use a diagonal or horizontal line across the first four tally marks. **Figure A and B** shows 7 tally marks.

Tally marks have been used for a very long time. In fact, tally marks or sticks were used over 30,000 years ago. Tally sticks were found in the form of notched bones during Africa's Late Stone Age and in ancient Europe.

A bone was found in 1937 in Czechoslovakia that was 30,000 years old. The bone is marked with 55 marks which experts believe are tally marks.

Today, the tally marks shown above are often used in most of Europe, Zimbabwe, Australia, New Zealand, and North America. Other cultures may use another kind of mark for counting. For example, the Chinese use a special character with five lines. People in France, Spain, and Brazil often use tally marks for scores in card games as shown in **Figure C**. It shows counting from 1 to 5.

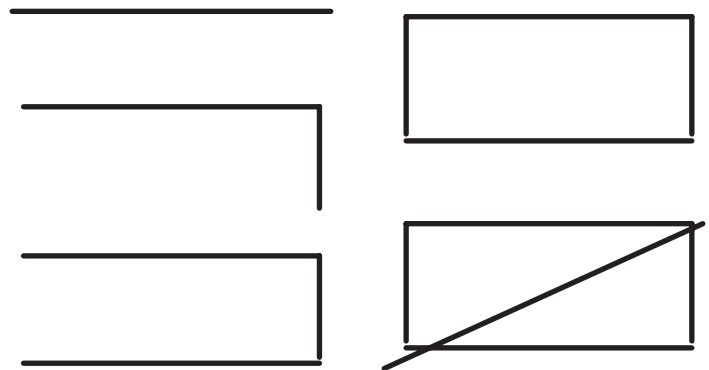


Figure C

Tally marks are usually not used for larger numbers. There would not be enough space. Tally marks may be written on paper using a pen or pencil, with a stick in the dirt, or with a piece of chalk on a sidewalk or wall.



Using Tally Marks

You likely play many kinds of games where you must keep score. They could be card games, contests you have during class, or during a sport. For example, you can use tally marks to count the runs in a baseball or softball game, the points scored in a card game or the words you spell correctly during a spelling bee.

The tally marks below are used to keep the score for a basketball game, the points in a contest, and the number of birds someone saw during a walk through the woods. Use counting by fives to add the tally marks for each example.

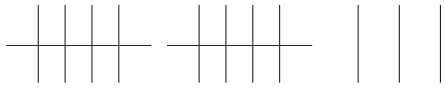
Visitors Tigers	<table border="0"> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td></td> </tr> </table>								
Home Spartans	<table border="0"> <tr> <td> </td> <td> </td> <td> </td> <td></td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td></td> </tr> </table>								



Red Team	<table border="0"> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				
Blue Team	<table border="0"> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>				



Number
of Birds
Spotted



Did you count the tally marks correctly? The score of the basketball game: *Tigers* - 34 and *Spartans* - 27. The score of the contest: *Red Team* - 17 and *Blue Team* - 11. The number of birds spotted was 13.

As you can see, tally marks can be used for counting many things. Tally marks have been used for thousands and thousands of years and will be used for many years to come. You do not need batteries, a computer, or any other special equipment to use tally marks for counting.



Think about some ways you could use tally marks today. How will you use them? Do you think it is easy or difficult to use tally marks? Why?





Follow the directions. Work cooperatively with your partner.

- Using the toothpicks as tally marks, you and your partner will have a contest to see who can show the numbers the fastest. Use the space provided to keep score using tally marks.

21	37	8	31	14	49
18	43	26	45	4	25

Your Score:
Partner's Score:

- Use tally marks only to count the following people or objects in the classroom: (no toothpicks)

All people _____

All students _____

Boys only _____

Girls only _____

All chairs _____

All windows _____

Books you see _____

The alphabet _____

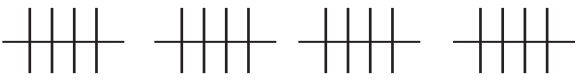
Wall posters _____

Plants/ Animals _____


- To make five, four vertical lines and one horizontal or diagonal line is used. Think of a new way to count to five. Create a new mark or symbol for counting on paper similar to using of tally marks. Be creative. Practice using the new method. You will share the new method with your class. Show how a person would count to 52 below:




Tell the number of each set of Tally Marks.

1 

2 

3 

4 


5 

6 


7 

8 

9 

10 

11 

12 

13 

14 

15 



Homework

Name _____ Date _____



Express each number using Tally Marks.

1 36

2 11

3 43

4 19

5 23

6 15

7 18

8 55

9 20

10 7

11 17

12 21

13 44

14 49

15 9



Express each number using Tally Marks.

- | | | |
|----|----|--|
| 1 | 36 | |
| 2 | 11 | |
| 3 | 43 | |
| 4 | 19 | |
| 5 | 23 | |
| 6 | 15 | |
| 7 | 18 | |
| 8 | 55 | |
| 9 | 20 | |
| 10 | 7 | |
| 11 | 17 | |
| 12 | 21 | |
| 13 | 44 | |
| 14 | 49 | |
| 15 | 9 | |