



**THIRD SPACE
LEARNING**

Thanksgiving Math Activities

10 Thanksgiving math activities
and ideas

Whole school

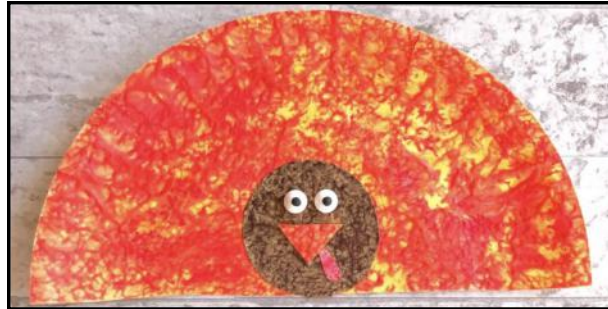
Introduction to the resource

In school, Thanksgiving is a great way for you to encourage your students to express gratitude for their learning opportunities.

The activities we've listed incorporate the following (and more!):

- **Problem solving-skills:** Thanksgiving games and activities will build your students' problem solving-skills. The activities enable your students to apply their math skills to engaging, real-life scenarios related to Thanksgiving.
- **Reasoning skills:** Students apply their understanding of number concepts and algebraic reasoning and justify their solutions and reasoning skills.
- **Number concepts and relationships:** Provide students with a variety of engaging Thanksgiving activities with themes to help them connect addition, subtraction, multiplication, and division with real-world scenarios.
- **Algebraic reasoning and multiple representations:** Students explore functional relationships using real-world situations related to Thanksgiving and represent their solutions as equations.

Activity 1: Make Your Own Turkey



You will need:

- Paper plate
- Sponge
- Clothespin (optional)
- Paint (red, orange, yellow, brown)
- Googly eyes
- Scissors
- Glue

What to do:

1. Cut the paper plate in half.
2. Using the sponge (and clothespin if you'd like), sponge paint one half of the paper plate with red, orange, and yellow paint.
3. While that's drying, use the other half of the paper plate to cut out a circle, beak, and snood.
4. Sponge paint the circle brown, the beak orange, and the snood red.
5. When all the pieces are dry, glue the pieces together to make your very own turkey. Don't forget to add the eyes, too!

Make it harder:

Give the students pictures of the directions but all cut up. Can they work together to put the directions in order before they make their own turkey?

Activity 2: Turkey Counting

Using 10 frames can be a helpful way to learn basic number facts. There are a number of games students can play with this turkey ten frame.

You will need:

- Dice
- Turkey Ten Frame

What to do:

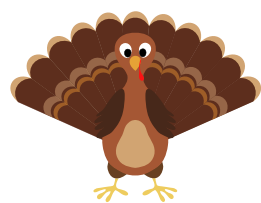
1. In groups of two, Student 1 rolls the die and places that number of counters on the 10 frame.
2. Student 2 then the number of counters needed to make 10 using a different color of counters.
3. Student 1 records the addition number sentence showing the addends which equal 10.
4. Students then switch roles and Student 2 rolls the die.

Make it harder:

Make it harder by asking these debriefing questions:

1. What does the word "zero" mean? Where is it on the number line?
2. Split 10 turkeys into two groups. Can you do it a different way? Can you split the ten turkeys into three groups?
3. Can you count to 10? Can you count down from 10?

Activity 2: Turkey Ten Frame



Activity 3: Thanksgiving grouping

This game involves students looking for similarities and differences between Thanksgiving foods. This will help your students to classify objects in different ways.

You will need:

- Thanksgiving items (we have included some printable images)

What to do:

1. Give students some thanksgiving items or images.
2. Ask students to either classify the items by a given criteria (e.g. by color) or ask students to explain how they would classify the items.
3. Share the ideas as a class - has anyone found a different way to classify the items?

Ideas for classifying:

Color

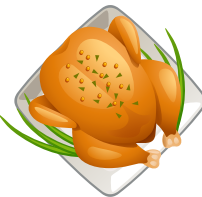
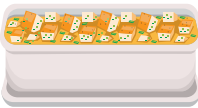


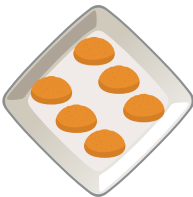


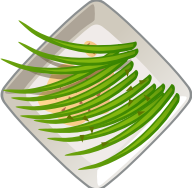
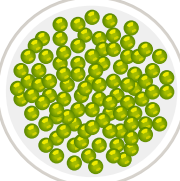

Size

Can be eaten alone (e.g. turkey) or usually eaten with something else (e.g. cranberry sauce)

Food I like and food I don't like (this could start some interesting discussions!)

Make it harder:

Students could classify the items into three groups or, if they have only been classifying food, add other types of items. Encourage the students to discuss how they have classified their items.

Turkey	Stuffing	Cranberry sauce	Sweet Potatoes	Rolls
				
Carrots	Gravy	Green Beans	Peas	Corn
				

Activity 4: Favorite data

Everyone has a favorite part of Thanksgiving, usually, it's to do with the food! Get everyone talking by gathering data about a specific question or let students pick a Thanksgiving themed question they want to find out about.

You will need:

- Pencils/ paper to gather and represent data

What to do:

1. Present your class with a question (we suggest 'What is your favorite Thanksgiving food?') or pick a Thanksgiving themed question to explore together.
2. Gather the data about your question as a class (or students could do this individually or in small groups).
3. Share the results of your data gathering as a whole class or students could do this individually. You could tell pupils your preferred method to display the data (a table, a picture graph or a bar chart etc).

Extend the activity:

Ask students questions about the data or get them to ask questions. Example questions:

How many students preferred [food] to [food]?

How many students voted for the most popular food?

What is the difference between the most popular and least popular food?

Make it harder:

Give pupils completed Thanksgiving data - what can they tell from the data you have given them?

Activity 5: Thanksgiving battleships

Play this familiar game with a Thanksgiving twist to reinforce understanding of coordinates.

You will need:

- A partner
- Thanksgiving Battleship Board printable

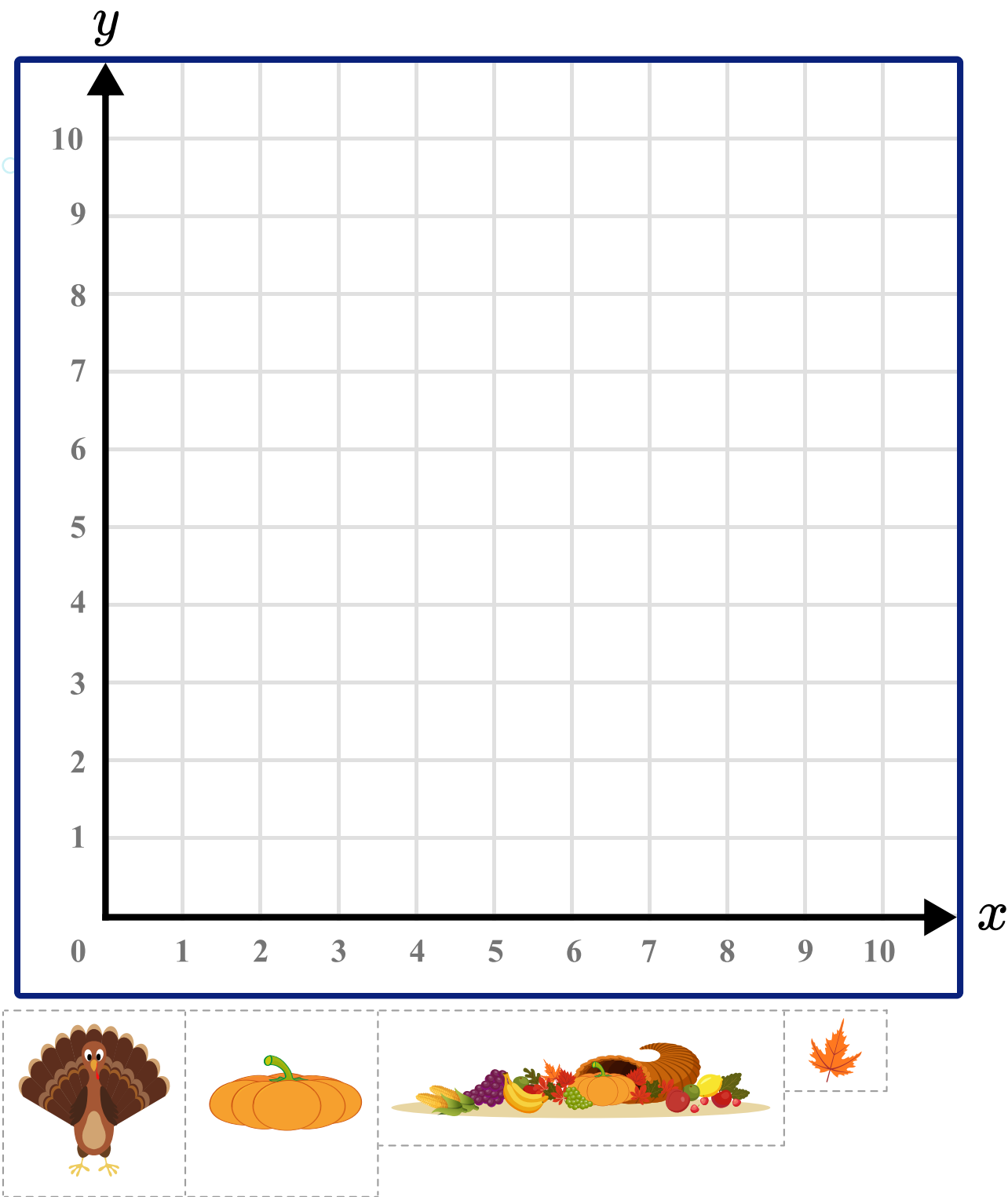
How to play:

1. Explain to the students that they should first cut out and glue their Thanksgiving themed images onto their battleship board. They should put them on the intersections between lines, not in the squares. They should do this without showing their partner.
2. Take it in turns to guess the coordinates of a Thanksgiving themed 'battleship'.
3. The first person to correctly 'sink' all the Thanksgiving themed battleships is the winner.

Make it harder:

Extend the grid into all four quadrants.

Activity 5: Thanksgiving Battleships Board



Activity 6: Thanksgiving Symmetry

When thinking about Thanksgiving, there are lots of images come to mind. There is obviously a lot of food but it wouldn't be the same without some fall decorations.

You will need:

- Leaves (optional)
- Square paper or coloured paper

What to do:

1. Explain to students that Thanksgiving is in the Fall season. In Fall, the leaves fall from a lot of trees. Leaves are all slightly different, even when they are from the same tree. You could go around the school collecting leaves (if there are trees near your school) to look at the different shapes of leaves.
2. Explore lines of symmetry by cutting out different leaves as decorations using a folded piece of squared paper or coloured paper.
3. Cut out the shape of a leaf. Can the students identify the line of symmetry?
4. Can the students make a leaf with more than one line of symmetry? Does it still look like a leaf?

Make it harder:

Give students leaves (either real leaves or drawn leaves) to investigate. Do the leaves have any lines of symmetry?

Activity 7: Turkey Time

Turkey is often the star of the Thanksgiving feast. Investigate how much turkey is needed per person, how long to thaw a turkey for and how much the turkey will cost for a Thanksgiving Dinner.

Part one: How much turkey?

You will need:

- ☐ Optional weights
- ☐ Turkey Eaters printable (optional)

What to do:

1. Tell your students that a general rule of thumb is 1–1½ pounds of turkey per adult person. If that seems like a lot, remember that a whole turkey comes with a lot of parts that don't end up getting eaten!
2. Tell students their task is to calculate how many pounds of turkey will be needed to feed the adults and children and the total for feeding all of the guests.

By only giving the students the information that the general rule of thumb is 1 to 1 ½ pounds per adult, their answers will vary. You may want to use weights to explore what 1 to 1 ½ pounds feels like and looks like before they start. They can then justify how much would be needed for each of their adult guests and children guests. Remind pupils that the given measurement is for adults so they need to decide what is reasonable for children.

Part two: Thawing time

You will need:

- ☐ Turkey Eaters printable (optional)

What to do:

1. Explain that a lot of turkeys people buy are frozen. The USDA (United States Department of Agriculture) say the safest way to thaw your turkey is in the refrigerator. This will allow the turkey to thaw in a consistent and safe temperature. The only problem is that this takes a long time. For every 4 to 5 pounds of turkey, it will take one full day to thaw.
2. Ask students to use this information to calculate when their frozen turkey should be removed from the freezer to give it enough time to thaw completely before it is cooked.

Part three: Turkey costs

You will need:

- ☐ Turkey Eaters printable (optional)

What to do:

1. Tell the students that the average turkey costs \$2.95 per pound.
2. Using this and the information from part one, calculate the cost of the turkey for Thanksgiving Dinner for the number of guests they will have.

Make it harder:

Think about your individual guests, how much would each person actually eat (e.g. does one adult eat less than another adult? Is there an especially hungry teenager?). How would this change how much the turkey costs?

Activity 7: Turkey Time

Part one:

Number of Adults Eating Turkey	
Number of Children Eating Turkey	
Total Number of People Eating Turkey	
Pounds of Turkey to Feed Adults	
Pounds of Turkey to Feed Children	
Total Pounds of Turkey Needed	

Part two:

The turkey will need to be removed from the freezer on: _____

Part three:

Turkey Cost For:	Equation	Total Cost
Adults		
Children		
Total for Adults and Children		

Activity 8: So Many Sides!

What would a Thanksgiving feast be without the sides? Use this activity to investigate how many sides students would need for their guests on Thanksgiving and how much it would cost.

You will need:

- ☐ So Many Sides printable
- ☐ Weights (optional)

What to do:

1. Explain that there are lots of different sides that can make up the Thanksgiving Dinner and that they all cost different amounts.
2. Using the 'So Many Sides!' printable resource, investigate how much of each side they would need for their Thanksgiving dinner and how much it would cost. As with the 'Turkey Time' activity, weights could be used to help pupils comprehend how much of each item they would need.

Make it harder:

Allow students to select their preferred sides and amend the list to show this. They will need to investigate the cost per unit as well as how much of each item they will need and the total cost.

Activity 8: So Many Sides!

Item	Cost per unit	Amount Needed for Dinner	Total Cost of Item
Cranberry Sauce	\$1.98 per 14 ounce can		
Stuffing	\$3.25 per box		
Mashed Potatoes	\$6.00 for 5 pounds		
Sweet Potatoes	\$2.98 for 3 pound bag		
Rolls	\$2.99/8		
Carrots	\$2.00 per bag		
Gravy	\$2.59 for 12 ounces		
Green Beans	\$.89 per can		
Peas	\$.84 per can		
Fruit Salad	\$8.97 for 48 ounces		
Corn	\$1.50 per ear of corn		

Explain how you determined the total cost of all of the sides that will be served at Thanksgiving

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Activity 9: Time to Prepare

Thanksgiving dinner takes a long time to prepare. Along with the turkey, there are all the sides to cook. Investigate how long it will take to cook the sides alone.

You will need:

- ☐ Time to prepare printable

What to do:

1. Tell students that their Thanksgiving feast will start at 2:00pm. With this in mind, they need to plan when to prep and when to cook their sides.
2. Complete our 'time to prepare' worksheet.

Make it harder:

Encourage the pupils to think logically, they can't have everything in the oven at one time. As a small group, agree which sides they can cook first and which they need to cook the closest to 2:00pm.

Activity 9: Time to Prepare

Your Thanksgiving feast begins at 2:00pm. Based on the time needed to prep and cook each side dish, plan out what time you need to begin prepping each dish and what time each needs to begin cooking in order to be ready for the 2:00pm lunch.

Side Dish	Time to Prepare	Time to Cook	Time to Begin Prep	Time to Put in Oven
Cranberry Sauce	10 minutes	12 minutes		
Stuffing	4 minutes	18 minutes		
Mashed Potatoes	22 minutes	70 minutes		
Sweet Potatoes	20 minutes	60 minutes		
Rolls	8 minutes	22 minutes		
Carrots	4 minutes	30 minutes		
Gravy	4 minutes	7 minutes		
Green Beans	5 minutes	15 minutes		
Peas	5 minutes	15 minutes		
Fruit Salad	20 minutes	0 minutes		
Corn	5 minutes	15 minutes		

Activity 10: Pumpkin Pie

What is Thanksgiving without a good pie? Either send this recipe home with your students or make pumpkin pie together in class. The following recipe serves 8 people.

Recipe INGREDIENTS:

For the pumpkin pie:



1 (15 ounce) can of pumpkin puree



1 (14 ounce) can of Sweetened Condensed Milk



2 large eggs



1 teaspoon ground cinnamon



½ teaspoon ground ginger



½ teaspoon ground nutmeg



½ teaspoon salt



1 (9 inch) unbaked pie crust

INSTRUCTIONS:



Gather all ingredients.



Preheat the oven to 425°F (220 °C).



Whisk the pumpkin puree, condensed milk, eggs, cinnamon, ginger, nutmeg, and salt together in a medium bowl until smooth.



Pour the filling into the crust.



Bake in the preheated oven for 15 minutes.



Reduce oven temperature to 350 °F (175 °C) and continue baking until a knife inserted 1 inch from the crust comes out clean. This should take 35 to 40 minutes.



Let it cool before serving.

Do you have a group of students who need a boost in math?

Each student could receive personalized lessons every week from our specialist one-on-one math tutors.




- ✓ Differentiated instruction for each student
- ✓ Aligned to your state's standards
- ✓ Scaffolded learning to close gaps

“We just had our first session and it went great! The kids really liked it and felt like they were learning! One even said he finally felt like math was making sense.”



Michelle Craig, Instructional Coach,
Sherwood Forest Elementary, Washington

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