

## Kwanza Celebration

### **Background Information:**

Kwanza is not a religious holiday. It is a festive celebration spent with family and friends that lasts 7 days. It is a time when African-Americans and others join together to honor traditions of their ancestors and focus on the year to come and how to make themselves better people and a better community.

One part of the traditional Kwanza celebration includes lighting candles at night. There are 7 candles called the mishama saba placed in a special candle holder called a kinara. Each candle stands for 1 of the 7 principles of Kwanza. The black candle is placed in the center of the kinara and represents unity. This is lit on the first night of Kwanza as well as every other night of the celebration. The 3 red candles are placed to the left of the black candle and represent purpose, creativity and faith. The 3 green candles represent self-determination, collective work and responsibility and cooperative economics. They are placed to the right of the black candle. The mishama saba are lit for 7 nights. The 1st night only the center, black candle is lit. The 2nd night, the black candle and a red candle are lit starting at the left side of the kinara. Each night, the candles that were burned are replaced and lit again, increasing the number of candles lite each night by 1. At the end of the Kwanza celebration how many candles of each color have been used? How many all together? Remember to record your work in an organized way.

## Kwanza Celebration

### Suggested Grade Span

3-5

### Task

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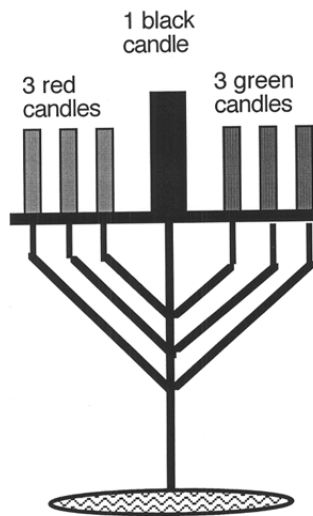
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### Alternate Versions of Task

#### More Accessible Version

Here are the candles that are lit during the Kwanzaa celebration.

# Exemplars



On the 1st night of the celebration the black candle is lit. Once it is lit, it is replaced.

On the 2nd night of the celebration 1 red candle is lit along with the new black candle. Both candles are replaced after they are lit.

On the 3rd night of the celebration 2 red candles are lit along with the black one. Once again, all 3 candles are replaced after they are lit.

On the 4th night of the celebration 3 red candles are lit along with the black one. Once again, all 4 candles are replaced after they are lit.

The same process continues the 5th night with the black candle being lit, the red candles being lit, and then the 1st green candle being lit. Once again, all the candles are replaced after they are lit.

The process then continues for nights 6 and 7.

At the end of the 7th night, how many black candles are used in all?

How many red candles are used in all? How many green candles are used in all?

## More Challenging Version

Kwanza is not a religious holiday. It is a festive celebration spent with family and friends that lasts 7 days. It is a time when African-Americans and others join together to honor traditions of their ancestors and focus on the year to come and how to make themselves better people and a better community.

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# Exemplars

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You decide to make your own candles for the celebration. Each candle will need a wick that is 8 inches long. How many yards of wick will you need to purchase for this project?

## Context

This task is introduced during the December holiday season. One of the celebrations we discuss and learn about is Kwanza. As you can see by reading the task, Kwanza is not a religious holiday, but one that honors seven principles that seem fitting for everyone. Before we did this problem, we read a book about Kwanza and discussed what the seven principles meant to us.

## What This Task Accomplishes

This task allowed children to solve a problem that was pretty straightforward, yet required a good deal of organization. It was beneficial for the children to see how many different ways this problem could be approached by sharing their solutions with their classmates when they finished. The length of the background information in the problem also helped reinforce to children that it is important to read problems carefully and to focus strictly on only the pertinent information.

## What the Student Will Do

I thought some of my third graders would have chosen to create the kinaras and candles with manipulatives, or at least use diagrams of the candles as their first strategy. Most students in my class seemed to go right to work on this, although many only answered the question of how many candles were used in all without telling how many candles of each color were used. About half my class drew colored representations. The other half did some sort of table. No one in my class solved this through the use of equations, although I would suspect a fifth-grade expert would.

## Time Required for Task

Two to three, 45 minute periods

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# Exemplars

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Note: This included a brief story and a discussion of the principles of Kwanza.

## Interdisciplinary Links

This task is great for the holidays. It can be adapted for another holiday such as Hanukkah. This task could also be used quite nicely with social studies units on communities, values, traditions, cultures or African-Americans.

## Teaching Tips

This was the first problem-solving task of the year in which I gave the students a copy of the criteria. I found this task to be relatively straight forward enough that the kids were not confused by the criteria, but actually referred to them saying things like, "I'm finished, but I think I'm going to try and do some kind of representation." I heard another student say, "I know I have math representation, but I'm not sure if I have everything I need for it to be accurate." These types of comments are perfect lead-ins to the teachable moments we love to capture.

For students that are having difficulty I would suggest helping them create a diagram by providing the outlines, or providing the structure for a table. Making real kinaras is another great idea.

I would also have plenty of black, red and green markers available for the children to use.

## Suggested Materials

- Red, green and black markers
- Base-10 blocks
- Graph paper
- Construction paper (red, green, black and yellow for flames)
- Scissors
- Candles
- Kinara

## Possible Solutions

Assuming that the children understood the task, there is really only one solution: There are 28 candles used in all: seven black, 15 red and six green.

## More Accessible Version Solution

See the solution to the original version.

## More Challenging Version Solution

$28 \text{ candles} \times 8 \text{ inches} = 224 \text{ inches} \div 12 \text{ inches in a foot} = 18.7 \div 3 = \text{approximately } 6.2 \text{ yards}$

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# Exemplars

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## Task Specific Assessment Notes

### Novice

The response is not a solution to the task. It is unclear whether or not mathematical reasoning was present. There is no explanation and no math language.

### Apprentice

This student's solution is incorrect. S/he does not seem to understand that there are not three red and green candles lit every night. Parts of the strategy used are useful. There is some appropriate use of math notation.

### Practitioner

This student understands the concepts needed to solve the problem. S/he uses the representation to solve the problem and uses effective and clear reasoning. The math representation is accurate and appropriate.

### Expert

This solution shows a deep understanding for a third grader. This student was able to identify the basic information needed to solve the problem in an efficient way. S/he verifies the results by solving the problem in more than one way. The explanation provided is clear and the math representation is used to actively communicate the solution.