

Scientist finds the 'right' way to cut Christmas cake

25th December, 2020



Christmas cake is a tradition that dates back centuries, for people who celebrate the festive season. The vast majority of those who enjoy a slice of their favourite seasonal treat are unaware that there is a science behind its

slicing. Dr Chris Budd, a professor of applied mathematics and geometry at two UK universities, tested several hypotheses on the optimal way to cut a Christmas cake into slices. He focused on how to dissect the cake while leaving the exposed insides as moist as possible. His solution was to cut the cake across the middle, leaving two semicircles, then cut slices and push the remaining halves together. He said: "It works." However, perhaps he would admit that it isn't exactly rocket science.

According to Wikipedia, Christmas cake is an English tradition that began as plum porridge. The plums later gave way to raisins, sultanas, orange rind and other dried fruit. The fruit is often soaked in rum or brandy. It is quite common for the fruity loaf part of the cake to be covered in a layer of marzipan, and then the top and sides to be coated in icing. The icing is a hardened, white sugar coating that can be over a centimetre thick. The top of the cake is usually decorated with an array of Christmassy symbols like fir trees or snowmen and women. Christmas cakes vary around the world. In Sri Lanka, they are full of treacle and spices. In Japan, they are simple sponge cakes with whipped cream and strawberries.

Sources: iflscience.com / dailymail.co.uk / wikipedia.com

Writing

It is OK to eat Christmas cake every day of the year. Discuss.

Chat

Talk about these words from the article.

tradition / centuries / Christmas cake / majority / geometry / slice / rocket science / plum / raisins / fruit / common / icing / decorated / snowmen / spices / strawberries

True / False

- a) The article says Christmas cake is thousands of years old. T / F
- b) A professor of geometry tested the best ways to cut a cake. T / F
- c) A professor decided it was best to cut the cake into quarters. T / F
- d) The article says Christmas cake science is like rocket science. T / F
- e) Christmas cake started life in England as a plum porridge. T / F
- f) The fruit used in Christmas cakes is often soaked in brandy. T / F
- g) Christmas cakes often have a layer of icing on them a centimetre thick. T / F
- h) Japanese Christmas cakes contain a lot of treacle. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|-----------------------|--------------------|
| 1. tradition | a. left over |
| 2. vast | b. theories |
| 3. hypotheses | c. adorned |
| 4. dissect | d. was replaced by |
| 5. remaining | e. wide |
| 6. gave way to | f. straightforward |
| 7. coated | g. cut |
| 8. decorated | h. differ |
| 9. vary | i. custom |
| 10. simple | j. covered |

Discussion – Student A

- a) What do you think of Christmas?
- b) How do people celebrate Christmas in your country?
- c) What is the meaning of Christmas?
- d) What is your favourite seasonal food?
- e) What do you think of festive cakes?
- f) Is it important to know the science behind slicing cakes?
- g) What do you think of the professor's solution?
- h) What does "It isn't exactly rocket science" mean?

Phrase Match

- | | |
|---------------------------------------|-------------------------|
| 1. Christmas cake is a tradition that | a. science |
| 2. people who celebrate the festive | b. hypotheses |
| 3. enjoy a slice of their favourite | c. Christmassy symbols |
| 4. tested several | d. season |
| 5. it isn't exactly rocket | e. way to raisins |
| 6. The plums later gave | f. cream |
| 7. The fruit is often soaked | g. dates back centuries |
| 8. decorated with an array of | h. around the world |
| 9. Christmas cakes vary | i. seasonal treat |
| 10. simple sponge cakes with whipped | j. in rum or brandy |

Discussion – Student B

- What do you think about what you read?
- What are your country's favourite food traditions?
- What do you know about dried fruit?
- Do you think English Christmas cake sounds delicious?
- What are the best Christmassy symbols?
- Should there be a global, standard Christmas cake?
- Should we be able to eat Christmas cake every day?
- What questions would you like to ask the professor?

Spelling

- a tradition that dates back tieeucnsr
- people who celebrate the ftvesie season
- a professor of dlpapie mathematics
- tested several tposehhyse
- leaving two clrsimeiecs
- push the iniamnerg halves together
- plum idreopgr
- The fruit is often dkeosa in rum
- a layer of mrpzaian
- The top of the cake is usually recotdade
- an array of shsisCtryma symbols
- they are full of retecla and spices

Answers – Synonym Match

1. i	2. e	3. b	4. g	5. a
6. d	7. j	8. c	9. h	10. f

Role Play

Role A – Star

You think a star is the best Christmas symbol. Tell the others three reasons why. Tell them what is wrong with their symbols. Also, tell the others which is the least Christmassy of these (and why): a reindeer, a present or holly.

Role B – Reindeer

You think a reindeer is the best Christmas symbol. Tell the others three reasons why. Tell them what is wrong with their symbols. Also, tell the others which is the least Christmassy of these (and why): a star, a present or holly.

Role C – Present

You think a present is the best Christmas symbol. Tell the others three reasons why. Tell them what is wrong with their symbols. Also, tell the others which is the least Christmassy of these (and why): a reindeer, a star or holly.

Role D – Holly

You think holly is the best Christmas symbol. Tell the others three reasons why. Tell them what is wrong with their symbols. Also, tell the others which is the least Christmassy of these (and why): a reindeer, a present or a star.

Speaking – Xmas Symbols

Rank these with your partner. Put the best at the top. Change partners often and share your rankings.

- | | |
|-----------|------------|
| • Holly | • Star |
| • Robin | • Fir tree |
| • Present | • Reindeer |
| • Cake | • Manger |

Answers – True False

a	F	b	T	c	F	d	F	e	T	f	T	g	T	h	F
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Answers to Phrase Match and Spelling are in the text.