

New York City sinking four millimetres a year

29th May 2023



Scientists say New York City is sinking by up to four millimetres a year under the weight of all its skyscrapers. A team of geophysicists from the United States Geological Survey calculated that there are 1,084,954

buildings in the city, weighing around 764 billion kilograms. This weight does not include fixtures and fittings in buildings, the transport infrastructure, or the weight of the city's 8.5 million inhabitants. Lead researcher Dr Tom Parsons said the gradual subsidence, coupled with rising sea levels, could make New York prone to natural disasters. He warned that "every additional high-rise building could contribute to future flood risk," especially along coastal and riverfront areas.

The researchers compared what is happening to New York to the problems Venice and Jakarta are having. Venice is experiencing more floods despite the construction of a \$5.3 billion system of sea walls. Indonesia is building a new capital city from scratch because Jakarta is sinking. The United Nations has forecast that 70 per cent of the world's population will inhabit cities by 2050. Parsons said: "When you build a city and it gets full of people, you end up with subsidence." He warned that New York City was "emblematic of a place that people migrate to and that obviously has a high concentration of construction." Increasing urbanisation will exacerbate problems for cities.

Sources: [nytimes.com](https://www.nytimes.com) / [bbc.com](https://www.bbc.com) / [cnn.com](https://www.cnn.com)

Writing

People should move out of cities and into the countryside. Discuss.

Chat

Talk about these words from the article.

scientists / New York City / sinking / weight / skyscrapers / buildings / disasters / risk / Venice / floods / construction / capital city / population / migrate / urbanization / city

True / False

- 1) New York City's buildings are causing the city to sink. T / F
- 2) New York City has over one million buildings. T / F
- 3) New York City's weight of 764 billion kilograms includes its inhabitants. T / F
- 4) A scientist said every new building increases the risk of floods. T / F
- 5) The cities of Venice and Jakarta are also sinking. T / F
- 6) Jakarta is being replaced by a new city that is being built. T / F
- 7) Half of the world's population will live in the countryside by 2050. T / F
- 8) Increased migration to the countryside will bring problems for cities. T / F

Synonym Match

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

- | | |
|------------------------|-----------------------|
| 1. weight | a. residents |
| 2. fittings | b. from the beginning |
| 3. inhabitants | c. slow |
| 4. gradual | d. relocate |
| 5. contribute | e. mass |
| 6. from scratch | f. worsen |
| 7. forecast | g. typical |
| 8. emblematic | h. furnishings |
| 9. migrate | i. play a part in |
| 10. exacerbate | j. predict |

Discussion – Student A

- a) What do you think about what you read?
- b) Should New Yorkers be worried about their city sinking?
- c) How do you feel about Venice sinking?
- d) Should people move from cities into the countryside?
- e) Why are cities so attractive for people from the countryside?
- f) Would you like to live in New York City?
- g) How can city planners and engineers stop New York sinking?
- h) What questions would you like to ask the geophysicists?

Phrase Match

- | | |
|----------------------------------|--------------------------|
| 1. under the weight of | a. to natural disasters |
| 2. weighing around | b. and riverfront areas |
| 3. fixtures and | c. from scratch |
| 4. make New York prone | d. problems for cities |
| 5. especially along coastal | e. fittings |
| 6. a \$5.3 billion system | f. all its skyscrapers |
| 7. building a new capital city | g. migrate to |
| 8. a place that people | h. of sea walls |
| 9. a high concentration | i. 764 billion kilograms |
| 10. urbanisation will exacerbate | j. of construction |

Discussion – Student B

- What do you know about New York City?
- What problems might a sinking city experience?
- What do you think of the New York City skyline?
- What are the good and bad things about skyscrapers?
- Are cities becoming too big?
- Why do you think New York is nicknamed 'the Big Apple'?
- Is New York the world's greatest city?
- What makes cities in your country prone to natural disasters?

Spelling

- A team of sypeighsicsot
- the United States oglilecGao Survey
- include irfxuets and fittings
- the transport natirrursctufe
- the city's 8.5 million inahbnttisa
- especially along acoltas and riverfront areas
- Venice is experiencing more flosod
- The United Nations has artefsoc that
- you end up with sbncuiseed
- alebtiemmc of a place that people migrate to
- a high tearicocnntno of construction
- urbanisation will aetxbaceer problems

Answers – Synonym Match

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

Role Play

Role A – New York

You think New York is the world's best city. Tell the others three reasons why. Tell them what is wrong with their cities. Also, tell the others which is the worst of these (and why): Tokyo, Cairo or Sydney.

Role B – Tokyo

You think Tokyo is the world's best city. Tell the others three reasons why. Tell them what is wrong with their cities. Also, tell the others which is the worst of these (and why): New York, Cairo or Sydney.

Role C – Cairo

You think Cairo is the world's best city. Tell the others three reasons why. Tell them what is wrong with their cities. Also, tell the others which is the worst of these (and why): Tokyo, New York or Sydney.

Role D – Sydney

You think Sydney is the world's best city. Tell the others three reasons why. Tell them what is wrong with their cities. Also, tell the others which is the worst of these (and why): Tokyo, Cairo or New York.

Speaking – Cities

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

- | | |
|------------|------------------|
| • New York | • Cairo |
| • Paris | • Bangkok |
| • Tokyo | • Rio de Janeiro |
| • Sydney | • London |

Answers – True False

1	T	2	T	3	F	4	T	5	T	6	T	7	F	8	F
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Answers to Phrase Match and Spelling are in the text.