Know the scientist

# 30-MINUTE ACTIVITY FOR CHILDREN - 38

Niels Bohr (1885 - 1962) was a

Danish physicist, who made

structure. He was the first to

separate orbits around the

electrons in the outer orbit

significant contribution to our

understanding of atom and its

propose that electrons travel in

nucleus and that the number of

CONTACT US School@thehindu.co.in

### War of words

Strike up a debate on the given topic

Many schools have banned junk food from the canteen. Idli and sambhar, rice and roti have replaced the piping hot vada pavs and cheesy pizzas. But should school canteens serve only healthy food? Put on your thinking cap and get ready to argue both sides:



Yes



#### determines the properties of an element. The element bohrium has been named after him.

Niels Bohr was born in Copenhagen, Denmark, to Ellen Adler Bohr and Christian Bohr, a professor of physiology at the University of Copenhagen. Even as a child, Bohr was interested in physics. After earning a doctorate in physics in 1911 from Copenhagen University, he



PHOTO: WIKIMEDIA COMMONS

conducted a series of experiments using his father's laboratory and even made his own glass test tubes. In 1912, Bohr was introduced to Ernest Rutherford, under whose tutelage he began

studying the properties of atoms.

With Rutherford's nuclear structure and Max Planck's quantum theory as the basis, Bohr developed a picture of atomic structure and explained what happens inside an atom. His model of atom, called the Bohr model, showed the atom as a small, positively charged nucleus surrounded by orbiting electrons. This work earned him a Nobel Prize in 1922.

After Denmark was occupied by the Nazis, Bohr fled to Sweden in 1943 and later to Britain and United States, where he was involved in the Manhattan Project, that produced the first nuclear weapons during Second World War. However, Bohr was

an advocate for the peaceful application of atomic physics.

An asteroid, a lunar crater and bohrium, the chemical element with atomic number 107, have been named in his honour.

Now that you have read the bio of Niels Bohr, try answering the following questions.

1. For which contribution did Niels Bohr won a Nobel?

2. Which element has been

named after Niels Bohr?

structure. 2. Bohrium investigation of atomic

Answers: 1. For his

# Word of the day Stymie (verb)

Meaning: Stymie means to stand in the way of something, or present an obstacle or hinder something.

**Origin:** The word stymie entered the English language in the 19th century. It was used as a noun used in golf to refer to a situation in which a player's ball blocks the line of play. Later, stymie came to be used as a verb meaning "to bring into the position of, or impede by, a stymie."

1. The fight against coronavirus has been stymied by lack of funds. 2. The heavy downpour stymied rescue attempts to find the stranded kids inside the Thai cave.

#### Activity

Use the word of the day in a sentence

#### Crack the code

Using the reference given below, crack the code and identify the terms:

1	2	3
ABC	DEF	GHI
4	5	6
JKL	MNO	PQR
7	8	9
STU	VWX	YZ

**1.** 7, 55, 333, 6, 6, 22, 77

**2.** 11, 444, 777, 22, 77, 555, 555, 77, 33

**3.** 11, 666, 555, 1, 2, 11, 1, 55, 2

4. 11, 555, 555, 77

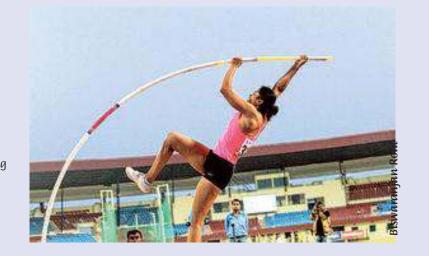
**5.** 22, 77, 33, 22, 666, 55, 22, 77

Broadband, 4. Boot, 5. Ethernet Answers: 1. Snippet, 2. Bluetooth, 3.

## What's the good word?

Many words have more than one meaning. In the sentences below, write down one word that fits both the descriptions

- 1. An angry stare; a potent patch of light.
- 2. To have turned something continuously; an injury.
- 3. A long cylindrical object; a person native to Poland.
- 5. A game where scores of both teams are equal; a thing worn around neck in formal wear.
- Answers: 1. Glave, 2. Wound, 3. Pole, 4. Object, 5. Tie.



### Fun facts 1. Smart birds Eurasian magpies are one of the most intelligent birds in the

world. They may be having tiny brains, but they are smarter than we thought. They have even passed the mirror test which proves their ability to recognise themselves in a reflection. Self-recognition is a feat only mammals - humans, elephants, apes, dolphins - are capable of. Now won't you think "bird-brained" is not an insult but a compliment?

Q: Can you find out more about the mirror test?

#### 2. No snakes on Antarctica

Snakes are found on every continent except Antarctica. Reptiles such as snakes are cold-blooded, meaning they depend on external heat sources in the environment to keep themselves warm. Antarctica is the coldest continent on Earth and as it remains frozen throughout the year, snakes cannot survive there.

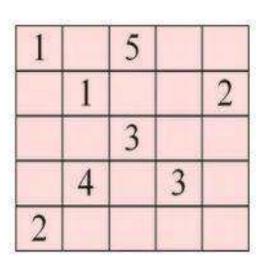
Q. Snakes use their to smell their surroundings.



2. Forked tongues ANSMER

### Number puzzle

Every digit from 1 to 5 must appear in each of the five vertical columns and the five horizontal rows.



Answer

3	t	I	ς	7
1	3	7	t	ç
ς	I	3	7	t
7	ç	ħ	I	3
1	7	ç	3	I

(Content provided by Amrita Bharati)

# Journal Writing

Dear Diary

Today, 1 set the alarm for ...

Imagine and write. You may even type a note and mail it to us at school@thehindu.co.in. We will select a few for publication when we resume

Today's Diary Pick

Today is my best friend's birthday. Since it's lockdown, we decided to celebrate his birthday through videocalling. We decided to have a blast even though we are stuck in our abodes. We planned to have a superhero theme party. I dressed up as my favourite superhero - Thor. I got a hammer and a Thor costume for my birthday last year. My other friends dressed up as Spider-Man, Falcon, Hulk, Iron Man, Black Panther, Ant-Man and Hawkeye. The birthday boy got to dress up as the head of the Avengers- "Captain America". For the party snacks we all had the same menus, including an identical cake. My Mom is a professional chef so she discussed the dishes with the other mothers. The scrumptious dishes were - veg. momos, veg. roll, rotzza (roti pizza), vada pav, pav bhaji and jalebis. For drinks we had lemonade, buttermilk and orangeade. It looked like an Avengers party. We had a blast. The person who enjoyed the most was the birthday boy.

Akshat Raj Choudhary, VI, Jankidevi Public School, Mumbai

#### The W Corner

**WHAT** does the term "bantamweight" mean?



India's Sakshi Chaudhary in action during a bantamweight category bout in the AIBA World Youth Women's Boxing Championship 2017. PHOTO: THE HINDU

When watching boxing matches, you might have encountered the word "bantamweight". Are you aware of what the term means in boxing circles? Do you think you can guess the answer? Fill in the space provided and check it with the answer.

heavyweight and heavyweight. welterweight, middleweight, light bantamweight, featherweight, lightweight, lightest to heaviest) are flyweight, onginal eight weight classes in boxing (from only within their weight categories. The ranges from 51-54 kg. Boxers usually fight amateur boxing, bantanweight generally in between Hyweight and Jeatherweight. In class in boxing and other sports that comes Answer: The term bantamweight is a weight

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