35 years ago, the worst nuclear **disaster** in history happened at the **power plant** at Chernobyl in the **former Soviet Union**. A **failed** safety test **caused** the nuclear reactor in Block 4 to become **unstable**. As a result, a **chain reaction** caused the **core** to explode. Fire spread out over the **entire compound**. Two people were killed in the explosion, over 30 workers **officially** died of **radiation sickness**. It is not known how many people died in the months and years that followed.

The Soviet **authorities** hid the truth about the explosion and did not warn other countries. A nuclear cloud **spread** across Europe for more than a week. Almost half a million people had to leave their homes.

The accident led to a worldwide debate on the safety of **nuclear energy**. It may have also been one of the **causes** of the **collapse** of the Soviet Union a few years later.

After the clean-up, the remaining reactors at Chernobyl continued to produce electricity for some years before the whole power station was **shut down** by Ukrainian **authorities** in 2000. A **sarcophagus** was built around Block 4 to **prevent radioactivity** from escaping. In 2017 a new steel structure was built to **ensure** more safety. The whole site is expected to be completely **decommissioned** by 2065.

Today, the area is still **affected** by radiation. Even though there is a 30 km **exclusion zone** a special kind of tourism has **emerged**. People from all over the world are coming to see the **remains** of the catastrophe and observe the **wildlife** in the region. The Ukrainian **government** is planning to use the area as a site for **nuclear waste**.

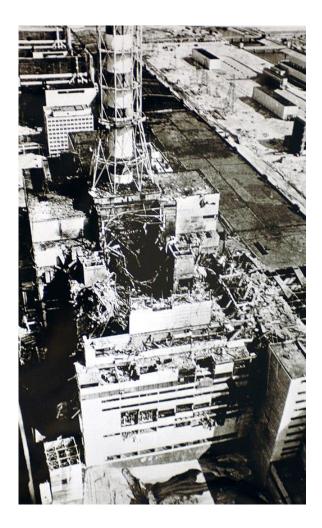
#### Words

- **affected** = here: there is still dangerous radiation
- **authorities** = the people who are in control of a certain part of a region
- caused = led to
- causes = reasons
- **chain reaction** = event that produces more and more energy in an uncontrolled way
- **collapse** = breakdown, if something does not exist anymore
- **compound** = a set of buildings
- **core** = the central part of a nuclear reactor
- **decommission** = to stop using the power plant and tear it down
- disaster = a sudden event that causes a lot of damage and kills people
- emerge = come up, appear
- entire = whole
- **exclusion zone** = area that people are not allowed to enter because it is dangerous
- **failed** = something that did not work
- **former** = earlier, once
- **government** = the people who rule a country

- **nuclear energy** = the energy you create when you split atoms
- **nuclear waste** = leftover material from nuclear reactors
- **officially** = as said by the government
- power plant = one or more buildings that produce electricity
- prevent = stop
- radiation sickness = illness that is caused when your body gets too much radiation
- radioactivity = the sending out of radiation when an atom is split
- remains = what is left
- sarcophagus = here: a structure that is put over the reactor so that dangerous radiation cannot escape
- **shut down** = to close something
- **Soviet Union** = the largest communist country that existed between 1917 and 1991
- **spread** = travel, move across
- unstable = something that may suddenly change and become worse
- wildlife = the animals that live naturally there

### Answer the following questions.

1.	Vhat caused the Chernobyl disaster?							
2.	How many people were killed in the explosion?							
	How did Soviet authorities deal with the disaster?							
4.	What did the disaster lead to?							
5.	When was the Chernobyl power station shut down?							
6.	What function does a sarcophagus have?							
7.	What replaced the sarcophagus in 2017?							
8.	Why are tourists coming to Chernobyl?							
9.	How is the Ukrainian government planning to use the disaster area?							



## Reactor 4 months after the disaster

<u>IAEA Imagebank</u>, <u>CC BY-SA 2.0</u>, via Wikimedia Commons

# Match the sentence beginnings with the endings. There are TWO endings you will not need.

1	A safety test that went wrong							
2	As a result of the explosion							
3	Many people died of radiation sickness							
4	The Soviet Union did not							
5	The disaster led to a							
6	The accident may have been one reason							
7	The remaining reactor blocks							
80	A sarcophagus was built							
9	A new kind of tourism							
10	People are coming to see							

Α	in the months and years that followed the disaster
В	for the collapse of the Soviet Union a few years later
С	a safety test was planned
D	caused the nuclear disaster at Chernobyl
E	to protect the area from radioactivity
F	has emerged in the exclusion zone
G	a fire broke out at the site
Н	widespread discussion on nuclear energy
I	were decommissioned in 2000
J	continued to produce energy for some time
K	how the disaster affected wildlife in the region
L	warn the world about what had happened

1	2	3	4	5	6	7	8	9	10

### Complete the text by filling in the correct words from the box below.

35 years ago, the worst nuclear (1)	_ in history happened at the power plant at
Chernobyl in the former Soviet Union. A failed <b>(2)</b>	test caused the nuclear reactor
in Block 4 to become unstable. As a result, a chain rea	action <b>(3)</b> the core to
explode. Fire spread out over the <b>(4)</b>	compound. Two people were killed in the
explosion, over 30 workers officially died of radiation	<b>(5)</b> It is not known how
many people died in the months and years that follow	wed.
The Soviet authorities hid the <b>(6)</b> a	bout the explosion and did not warn other
countries. A nuclear cloud spread across Europe for r	nore than a week. Almost half a million people
had to leave their homes.	
The accident led to a worldwide (7)	on the safety of nuclear energy. It may have
also been one of the causes of the (8)	
After the clean-up the remaining reactors at Chernob	yl <b>(9)</b> to produce electricity
for some years before the whole power station was s	hut down by Ukrainian <b>(10)</b> in
2000. A sarcophagus was built around Block 4 to <b>(11)</b>	radioactivity from
escaping. In 2017 a new steel structure was built to <b>(1</b>	
site is expected to be completely decommissioned by	<i>i</i> 2065.
Today, the area is still affected by radiation. Even tho	ugh there is a 30 km exclusion zone a special
kind of tourism has <b>(13)</b> People fr	rom all over the world are coming to see
the remains of the catastrophe and observe the wildl	ife in the region. The Ukrainian government is
planning to use the area as a site for nuclear (14)	·

1	misfortune	ruin	disaster	event	
2	danger	guard	protection	safety	
3	caused	made	led	affected	
4	entire	complete	total	all	
5	condition	infection	infection sickness		
6	fact	truth	honesty	event	
7	examination	agreement	argument	debate	
8	failure	ruin	collapse	resign	
9	continued	lasted	restarted	stayed	
10	agencies	organisations	specialists	authorities	
11	avoid	defend	prevent	guard	
12	assure ensure		sure	surely	
13	emerged	occurred	happened	come	
14	4 waste dump		leftovers garbage		

### **Essay: Nuclear Energy**

While Germany has decided to phase out the use of nuclear power within the next decades, other countries, including Russia, China and India are focusing more and more on nuclear power as a source of their growing energy needs. The United States and France are the top two producers of nuclear energy.

## Write about the pros and cons of nuclear energy and consider, among other things, the following aspects:

- How dangerous is nuclear energy in the wake of the nuclear catastrophes at Chernobyl and Fukushima?
- Is nuclear energy a cheap source of power for the world's leading industrial countries?
- What are the advantages and disadvantages of nuclear power?
- Which forms of energy should we focus on?



#### **KEY**

#### Answer the following questions.

- 1. a failed safety test
- 2. 2
- 3. they hid the truth / didn't tell the truth
- 4. the collapse of the Soviet Union / a debate on the safety of nuclear energy
- 5. 2000
- 6. to prevent radioactivity from escaping
- 7. a steel structure
- 8. to see the remains and observe wildlife
- 9. as a nuclear waste site

### Match the sentence beginnings with the endings. There are TWO endings you will not need.

1	2	3	4	5	6	7	8	9	10
D	G	Α	L	Н	В	J	Е	F	K

### Complete the text by filling in the correct words from the box below.

35 years ago, the worst nuclear (1) **disaster** in history happened at the power plant at Chernobyl in the former Soviet Union. A failed (2) **safety** test caused the nuclear reactor in Block 4 to become unstable. As a result, a chain reaction (3) **caused** the core to explode. Fire spread out over the (4) **entire** compound. Two people were killed in the explosion, over 30 workers officially died of radiation (5) **sickness**. It is not known how many people died in the months and years that followed.

The Soviet authorities hid the (6) **truth** about the explosion and did not warn other countries. A nuclear cloud spread across Europe for more than a week. Almost half a million people had to leave their homes.

The accident led to a worldwide (7) **debate** on the safety of nuclear energy. It may have also been one of the causes of the (8) **collapse** of the Soviet Union a few years later.

After the clean-up the remaining reactors at Chernobyl (9) **continued** to produce electricity for some years before the whole power station was shut down by Ukrainian (10) **authorities** in 2000. A sarcophagus was built around Block 4 to (11) **prevent** radioactivity from escaping. In 2017 a new steel structure was built to (12) **ensure** more safety. The whole site is expected to be completely decommissioned by 2065.

Today, the area is still affected by radiation. Even though there is a 30 km exclusion zone a special kind of tourism has (13) **emerged**. People from all over the world are coming to see the remains of the catastrophe and observe the wildlife in the region. The Ukrainian government is planning to use the area as a site for nuclear (14) **waste**.