



WATCH & LEARN: SCIENCE & NATURE: ALTERNATIVE ENERGY: NUCLEAR POWER CHERNOBYL EXCLUSION ZONE (3:15 min) VIDEO Script & Vocabulary (page 1 of 2/v1156)

INTERMEDIATE (B1 - B2) AND ABOVE

- ◊ Read the script and note new vocabulary
- ◊ Write three sentences using new vocabulary
- ◊ Prepare for the discussion questions

Starting Off

Thirty-four years after the Chernobyl nuclear accident, people are still restricted from resettling the evacuation area, dubbed the Chernobyl Exclusion Zone. The absence of humans has created an opportunity for nature to thrive.

- 1 Read the **Video Script** below. The words in **bold** are defined in the **Vocabulary** section. Look up any new words in a dictionary.
- 2 Go to the **Your Turn** section at the end of this document. Practice using new words and expressions from the video script to prepare for your next class.
- 3 Look at the **Discussion Questions** and prepare your responses for the next class.

Video Script:

James Beasley, Assistant Professor, University of Georgia: The large reason why these animals seem to be persisting in high **densities** or high **abundance** within the



exclusion zone is because of the absence of humans. As you drive around the exclusion zone you're **overcome** by all the **lush** nature. It's really an **eerie** reminder of the tragic human impact that occurred there back around 30-years ago.

The Chernobyl exclusion zone is basically a 30-kilometer radius that was created that extends around the nuclear reactor where the accident **occurred** and within that 30-kilometer zone. That's where **preventive measures** were taken to exclude people. So all the towns, villages, cities within that area, that 30-kilometer area, were evacuated.

Sergei Gaschak, International Radioecology Laboratory: Thirty-years after the accident, these **woodlands** increased up to one-half or more times so now approximately 70% of the area is forest.

Maryna Shkvyria, Researcher, Shmalgauzen Institute of Zoology: If you talk about large **mammals** like carnivores and **ungulates** it's really good **habitat** because it's wild territory now and especially these very wild spots are around the border with Belarus. And (there are) also many different water sources like lakes and rivers and springs.

Beasley: So the work that we've been involved with in the Chernobyl exclusion zone has been to look at the distribution and relative abundance of wildlife, particularly large mammals and especially carnivores, specifically looking at radiation contamination. So as you move from areas of low to high contamination do you see a **subsequent drop-off** in the number of species that you detect - the relative abundance of those animals? Species we most commonly documented were raccoon dogs, large numbers of photographs of grey wolves, red fox, eurasian boar, eurasian badger.

Video Script continued on next page...

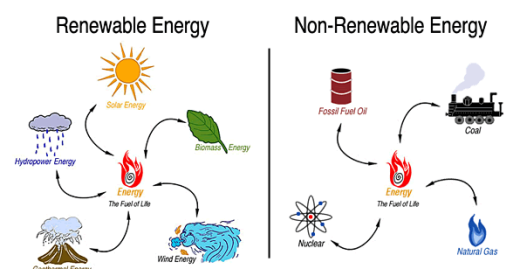
Discussion Questions:

- ◊ What do you know about the Chernobyl Nuclear Power Plant explosion in 1986?
- ◊ Is nuclear power an important source of energy in your country? Do you think that it should play a part in the global transition away from fossil fuels toward renewable energy sources?
- ◊ What are some of the most prominent forms of renewable energy production today and how large a role do you think they will take in the coming decades?

Vocabulary:

- **density** - the quantity of people or things in a given area or space
- **abundance** - the state or condition of having a copious quantity of something; plentifulness
- **overcome** - (of a feeling or emotion) overpower or overwhelm
- **lush** - (of vegetation, especially grass) growing luxuriantly
- **eerie** - strange and frightening
- **occur** - happen; take place
- **preventive measures** - restrictions on activities put in place to avoid a dangerous or unhealthy situation
- **woodlands** - land covered with trees
- **mammal** - a warm-blooded vertebrate animal of a class that is distinguished by the possession of hair or fur, females that secrete milk for the nourishment of the young, and (typically) the birth of live young
- **ungulate** - a mammal possessing a horny part on it's feet, especially a horse
- **habitat** - the natural home or environment of an animal, plant, or other organism
- **subsequent** - coming after something in time; following
- **drop-off** - decline; decrease

Vocabulary continued on next page...





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Video Script continued...

When we have human dominated **landscapes** we have lower densities of animals especially animals that come into conflict with humans like wolves and so after people were removed, even though the landscape was highly contaminated, it allowed them to increase.

What this research is not **looking at** is the individual health of those animals. So it doesn't suggest that these animals are incredibly healthy although on the **surface** they appear very healthy. It doesn't imply that there aren't more **subtle** genetic effects and that's an important area that I think we need to continue to explore with future research **down the road**.

Vocabulary continued...

- **landscape** - all the visible features of an area of land
- **look at** - investigate; research; analyse
- **surface** - the outward appearance of someone or something, especially as distinct from less obvious aspects
- **subtle** - (especially of a change or distinction) so delicate or precise as to be difficult to analyse or describe
- **down the road** - in the future

Your Turn! Using new vocabulary is the best way to learn and remember it.

- 1 Choose three words or expressions from the video that are new to you and write a sentence using each one in the box below.
- 2 Try to use them in a context that is familiar to you to help you retain them.
- 3 Please ask for feedback on your sentences in the next lesson.

1 _____

2 _____

3 _____

