



Samedi 6 avril 2024

ÉPREUVE : ANGLAIS
MP - MPI - PC - PSI - PT - TSI

DURÉE : 2 HEURES 30 MINUTES

Conditions particulières :

Calculatrice interdite

Indiquez votre code candidat SCEI sur le QCM
qu'il faudra insérer dans votre copie d'examen

Concours CPGE EPITA-IPSA-ESME 2024

Épreuve d'Anglais

Instructions

This exam is composed of **26 multiple choice questions** and **2 writing tasks** dealing with one document, entitled "Our Way of Life is Poisoning Us".

Part 1.

- Multiple Choice Questions, nos. 2 to 26. Fifteen points are based on the document, ten on general grammar. (NB. Question 1 is a reminder and does not count.)
Write answers on the ANSWER SHEET provided.

Part 2.

- Writing Task 1: Synthesis 20 pts.
Write an OBJECTIVE synthesis of the document, which reflects information and opinions concerning microplastics and their impact on people.
This synthesis must contain 250 words with a margin of more or less 5 %.
- Writing Task 2: Short Essay Each question is worth 10 points, for a total of 20.
Answer the following questions as completely as possible. Refer to the text where necessary.
 1. For you, what is the most worrisome aspect of the impact of micro- and nano-plastics described by Mark O'Connell? Why?
Write 100 words with a margin of more or less 5 %.
 2. Who, or what institution(s), should be responsible for reducing the use of plastic in the world today? Explain.
Write 100 words with a margin of more or less 5 %.

All words count, including any references to the article.

Indiquer le nombre de mots que vous avez utilisés.

Origin of document: The New York Times, 20 April 2023

"Our Way of Life is Poisoning Us" By Mark O'Connell

Warning. To ensure that your handwriting is as legible as possible, paper is provided for a rough draft. Use the *livret* for your final version.

Attention. Afin d'assurer que votre écriture soit la plus lisible possible, vous êtes prié de commencer par un brouillon puis rédiger la version finale sur les feuillets fournis.

Our Way of Life is Poisoning Us

By Mark O'Connell from New York Times, April 20, 2023

1. There is plastic in our bodies; it's in our lungs and in our bowels and in the blood that pulses through us. We can't see it, and we can't feel it, but it is there. It is there in the water we drink and the food we eat, and even in the air that we breathe. We don't know, yet, what it's doing to us, because we have only quite recently become aware of its presence; but since we have learned of it, it has become a source of profound and multifarious cultural anxiety.
2. Maybe it's nothing; maybe it's fine. Maybe this jumble of fragments — bits of water bottles, tires, polystyrene packaging, microbeads from cosmetics — is washing through us and causing no particular harm. But even if that was true, there would still remain the psychological impact of the knowledge that there is plastic in our flesh. This knowledge registers, in some vague way, as apocalyptic; it has the feel of a backhanded divine vengeance, sly and poetically appropriate. Maybe this has been our fate all along, to achieve final communion with our own garbage.
3. The word we use, when we speak about this unsettling presence within us, is "microplastics." It's a broad category, accommodating any piece of plastic less than five millimeters, or about a fifth of an inch, in length. Much of this stuff, tiny though it is, is readily visible to the naked eye. You may have seen it in the photographs used to illustrate articles on the topic: a multitude of tiny, many-colored shards displayed on the tip of a finger, or a lurid little heap on a teaspoon. But there is also, more worryingly still, the stuff you can't see: so-called nano-plastics, which are a tiny fraction of the size of microplastics. These are capable of crossing the membranes between cells and have been observed to accumulate in the brains of fish.
4. We have known for a while now that they are causing harm to fish. In a study published in 2018, fish exposed to microplastics were shown to have lower levels of growth and reproduction; their offspring, even when they were not themselves exposed, were observed as also having fewer young, suggesting that the contamination lingers through the generations. In 2020, another study, at James Cook University in Australia, demonstrated that microplastics alter the *behavior* of fish, with higher levels of exposure resulting in fish taking more risks and, as a consequence, dying younger.
5. Last month, The Journal of Hazardous Materials published a study examining the effects of plastic consumption on seabirds. The researchers put forward evidence of a new plastic-induced fibrotic disease they call plasticosis. Scarring on the intestinal tract caused by ingestion of plastics, they found, caused the birds to become more vulnerable to infection and parasites; it also damaged their capacity to digest food and to absorb certain vitamins.

6. It's not, of course, the welfare of fish or seabirds that makes this information most worrying. If we — by which I mean human civilization — cared about fish and seabirds, we would not, in the first place, be dumping some 11 million metric tons of plastic into the oceans every year. What's truly **unsettling** is the prospect that similar processes may turn out to be at work in our own bodies, that microplastics might be shortening our lives, and making us stupider and less fertile while they're at it. As the authors of the report on plasticosis put it, their research "raises concerns for other species impacted by plastic ingestion" — a category that very much includes our own species.
7. Because just as fish must swim through the blizzard of trash we have made of the seas, we ourselves cannot avoid the stuff. One of the more unsettling elements of the whole microplastics situation — we can't really call it a "crisis" at this point, because we just don't know how bad it might be — is its strangely democratic pervasiveness. Unlike, say, the effects of climate change, no matter who you are, or where you live, you are exposed. You could live in a secure compound in the most remote of locations — safe from forest fires and rising sea levels — and you would be exposed to microplastics in a shower of rain. Scientists have found microplastics near the summit of Everest, and in the Mariana Trench, 36,000 feet below the surface of the Pacific.
8. In this context, most of the changes we make to try to protect ourselves from microplastic ingestion come to seem basically cosmetic. You can, for instance, stop giving your toddler water in a plastic cup, and it might make you feel like you're doing something about her level of exposure, but only until you start thinking about all those PVC pipes the water had to pass through to get to her in the first place.
9. In a study conducted last year, in which researchers in Italy analyzed the breast milk of 34 healthy new mothers, microplastics were present in 75 percent of the samples. A particularly cruel irony, this, given the association of breast milk with purity and naturalness, and given new parents' anxieties about heating formula in plastic bottles. This research itself came in the wake of the revelation, in 2020, that microplastics had been found in human placentas. It seems to have become something close to definitional: To be human is to contain plastic.
10. To consider this reality is to glimpse a broader truth that our civilization, our way of life, is poisoning us. There is a strange psychic logic at work here; in filling the oceans with the plastic detritus of our purchases, in carelessly disposing of the evidence of our own inexhaustible consumer desires, we have been engaging in something like a process of repression. [...]
11. [...] The whole point of plastic, after all, is that it's virtually immortal. From the moment it became a feature of mass-produced consumer products, between the First and Second World Wars, its success as a material has always been inextricable from the ease with which it can be created, and from its extreme