

Test 2 Exam practice Reading Passage 1

Review

- 1 How many questions do you have to answer?
- 2 Does each task have the same number of questions?
- 3 How long should you spend on this passage?

NOW FOLLOW THE ACTION PLAN REMINDER ON PAGE 71

You should spend about 20 minutes on **Questions 1–13**, which are based on Reading Passage 1 below.

Our Vanishing Night

Most city skies have become virtually empty of stars

by Verlyn Klinkenborg

If humans were truly at home under the light of the moon and stars, it would make no difference to us whether we were out and about at night or during the day, the midnight world as visible to us as it is to the vast number of nocturnal species on this planet. Instead, we are diurnal creatures, meaning our eyes are adapted to living in the sun's light. This is a basic evolutionary fact, even though most of us don't think of ourselves as diurnal beings any more than as primates or mammals or Earthlings. Yet it's the only way to explain what we've done to the night: we've engineered it to meet our needs by filling it with light.

This kind of engineering is no different from damming a river. Its benefits come with consequences – called light pollution – whose effects scientists are only now beginning to study. Light pollution is largely the result of bad lighting design, which allows artificial light to shine outward and upward into the sky, where it is not wanted, instead of focusing it downward, where it is. Wherever human light spills into the natural world, some aspect of life – migration, reproduction, feeding – is affected.

For most of human history, the phrase 'light pollution' would have made no sense. Imagine walking toward London on a moonlit night around 1800, when it was one of Earth's most populous cities. Nearly a million people lived there, making do, as they always had, with candles and lanterns. There would be no gaslights in the streets or squares for another seven years.

Now most of humanity lives under reflected, refracted light from overlit cities and suburbs, from light-flooded roads and factories. Nearly all of night-time Europe is a bright patch of light, as is most of the United States and much of Japan. In the South Atlantic the glow from a single fishing fleet – squid fishermen luring their prey with metal halide lamps – can be seen from space, burning brighter on occasions than Buenos Aires.

Tip! Read the title and subtitle which tell you what the topic is.

Tip! Quickly skim the passage to get a general idea of what it is about and the topic of each paragraph. Don't worry about words you don't understand and don't spend too long trying to work out what they mean. If you read on, they may be explained anyway.

In most cities the sky looks as though it has been emptied of stars and taking their place is a constant orange glow. We've become so used to this that the glory of an unlit night – dark enough for the planet Venus to throw shadows on Earth – is wholly beyond our experience, beyond memory almost. And yet above the city's pale ceiling lies the rest of the universe, utterly undiminished by the light we waste.

We've lit up the night as if it were an unoccupied country, when nothing could be further from the truth. Among mammals alone, the number of nocturnal species is astonishing. Light is a powerful biological force, and on many species it acts as a magnet. The effect is so powerful that scientists speak of songbirds and seabirds being 'captured' by searchlights on land or by the light from gas flares on marine oil platforms, circling and circling in the thousands until they drop. Migrating at night, birds are apt to collide with brightly lit buildings; immature birds suffer in much higher numbers than adults.

Insects, of course, cluster around streetlights, and feeding on those insects is a crucial means of survival for many bat species. In some Swiss valleys the European lesser horseshoe bat began to vanish after streetlights were installed, perhaps because those valleys were suddenly filled with light-feeding pipistrelle bats. Other nocturnal mammals, like desert rodents and badgers, are more cautious about searching for food under the permanent full moon of light pollution because they've become easier targets for the predators who are hunting them.

Some birds – blackbirds and nightingales, among others – sing at unnatural hours in the presence of artificial light. Scientists have determined that long artificial days – and artificially short nights – induce early breeding in a wide range of birds. And because a longer day allows for longer feeding, it can also affect migration schedules. The problem, of course, is that migration, like most other aspects of bird behavior, is a precisely timed biological behavior. Leaving prematurely may mean reaching a destination too soon for nesting conditions to be right.

Nesting sea turtles, which seek out dark beaches, find fewer and fewer of them to bury their eggs on. When the baby sea turtles emerge from the eggs, they gravitate toward the brighter, more reflective sea horizon but find themselves confused by artificial lighting behind the beach. In Florida alone, hatchling losses number in the hundreds of thousands every year. Frogs and toads living on the side of major highways suffer nocturnal light levels that are as much as a million times brighter than normal, disturbing nearly every aspect of their behavior, including their night-time breeding choruses.

It was once thought that light pollution only affected astronomers, who need to see the night sky in all its glorious clarity. And, in fact, some of the earliest civic efforts to control light pollution were made half a century ago to protect the view from Lowell Observatory in Flagstaff, Arizona. In 2001 Flagstaff was declared the first International Dark Sky City. By now the effort to control light pollution has spread around the globe. More and more cities and even entire countries have committed themselves to reducing unwanted glare.

Action plan reminder

True/False/Not given

- 1 Will the questions focus on author opinion or factual information?
- 2 Are the questions in the same order as the information you need in the text?
- 3 Will there always be at least one True, one False and one Not given answer?
- 4 Is there an answer in every paragraph?
- 5 Look at the text. What will you do first?
- 6 Look at the questions. What will you do before you look for the answers?

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Questions 1–7

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1–7 on your answer sheet, write

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

- 1 Few people recognise nowadays that human beings are designed to function best in daylight.
- 2 Most light pollution is caused by the direction of artificial lights rather than their intensity.
- 3 By 1800 the city of London had such a large population, it was already causing light pollution.
- 4 The fishermen of the South Atlantic are unaware of the light pollution they are causing.
- 5 Shadows from the planet Venus are more difficult to see at certain times of year.
- 6 In some Swiss valleys, the total number of bats declined rapidly after the introduction of streetlights.
- 7 The first attempts to limit light pollution were carried out to help those studying the stars.

Tip! Use the words in the statements to find the part of the text you need to read carefully for each question. Remember – the text may use different words from the questions.

Tip! If you find the right part of the text but you can't find the answer, the answer is 'Not given'.

Advice

- 1 The first paragraph is about human beings in general. Underline the sentence about how most of us think of ourselves.
- 2 The text mentions 'bad lighting design'. Does this refer to how strong the lights are or which way they point?
- 3 Find the paragraph about London in 1800. Read the whole paragraph and then answer the question.
- 4 Find the part of the text about fishermen. What does it say about their awareness of light pollution?
- 5 Find the paragraph which mentions Venus. What does it say about when we can see the shadows?
- 6 Find the part of the text which mentions Swiss valleys. Read about both kinds of bats to get the right answer.
- 7 Look at the paragraph about astronomers. Find the words which mean 'the first attempts to limit light pollution' and read the rest of the sentence. The first sentence and 'in fact' also help you to answer the question.

Action plan reminder

Table completion

- 1 What important information do the instructions give you?
- 2 What should you think about when you look at the gaps?
- 3 Are the words you need all in the text?
- 4 Can you change words or use different words with the same meaning for your answer?
- 5 Do you have to spell the words correctly?

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Questions 8–13

Complete the table below.

Choose **NO MORE THAN THREE WORDS** from the passage for each answer.

Write your answers in boxes 8–13 on your answer sheet.

CREATURE	EFFECTS OF LIGHT
Songbirds and seabirds	The worst-affected birds are those which are 8 They bump into 9 which stand out at night.
Desert rodents and badgers	They are more at risk from 10
Migrating birds	Early migration may mean the 11 are not suitable on arrival.
Sea turtles	They suffer from the decreasing number of 12
Frogs and toads	If they are near 13 , their routines will be upset.

Tip! When you have completed the table, read it through. Do your answers make sense? For example, in 8, 11 and 12 you need an adjective as well as a noun.

Tip! Look at the headings of the columns. For each kind of creature you are going to look at the ways they are affected by light.

Tip! For each question find the part of the text which is about those creatures. They are in the same order as the text.

Tip! Some of the words you need will be singular and some will be plural. Copy them carefully.

Advice

Do all the gaps need nouns or noun phrases?

8 Which words mean 'worst-affected'?

9 Which paragraph is about songbirds and seabirds? Which word means 'bump into'? Why are 'searchlights' and 'oil platforms' wrong?

10 There is one sentence about desert rodents and badgers. Which words say they are 'at risk'?

11 Which paragraph is about migration? Which words mean 'on arrival'? What does the text say is not suitable?

12 There are three sentences about sea turtles. What is there a lack of? Which words tell you? Does this make the turtles suffer? Why is 'artificial lighting' wrong?

13 Which paragraph is about frogs and toads? Which words in the text mean 'their routines will be upset'? What are they near when this happens?