Name:

Klasse/Jahrgang:

Standardisierte kompetenzorientierte schriftliche Reifeprüfung / Reife- und Diplomprüfung / Berufsreifeprüfung

12. Jänner 2024

Englisch

Lesen B2

Bundesministerium Bildung, Wissenschaft und Forschung

Hinweise zum Bearbeiten der Aufgaben

Sehr geehrte Kandidatin, sehr geehrter Kandidat!

Dieses Aufgabenheft enthält vier Aufgaben.

Verwenden Sie für Ihre Arbeit einen schwarzen oder blauen Stift.

Bevor Sie mit den Aufgaben beginnen, nehmen Sie das Antwortblatt heraus.

Schreiben Sie Ihre Antworten ausschließlich auf das dafür vorgesehene Antwortblatt. Beachten Sie dazu die Anweisungen der jeweiligen Aufgabenstellung. Sie können im Aufgabenheft Notizen machen. Diese werden bei der Beurteilung nicht berücksichtigt.

Schreiben Sie bitte Ihren Namen in das vorgesehene Feld auf dem Antwortblatt.

Bei der Bearbeitung der Aufgaben sind keine Hilfsmittel erlaubt.

Kreuzen Sie bei Aufgaben, die Kästchen vorgeben, jeweils nur ein Kästchen an. Haben Sie versehentlich ein falsches Kästchen angekreuzt, malen Sie dieses vollständig aus und kreuzen Sie das richtige Kästchen an.



Möchten Sie ein bereits von Ihnen ausgemaltes Kästchen als Antwort wählen, kreisen Sie dieses Kästchen ein.



Schreiben Sie Ihre Antworten bei Aufgaben, die das Eintragen von einzelnen Buchstaben verlangen, leserlich und in Blockbuchstaben. Falls Sie eine Antwort korrigieren möchten, malen Sie das Kästchen aus und schreiben Sie den richtigen Buchstaben rechts neben das Kästchen.



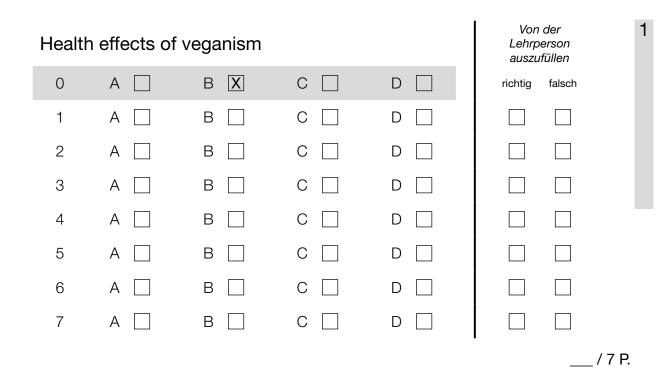
Falls Sie bei den Aufgaben, die Sie mit einem bzw. bis zu maximal vier Wörtern beantworten können, eine Antwort korrigieren möchten, streichen Sie bitte die falsche Antwort durch und schreiben Sie die richtige daneben oder darunter. Alles, was nicht durchgestrichen ist, zählt zur Antwort.

Beachten Sie, dass bei der Testmethode *Richtig/Falsch/Begründung* beide Teile (*Richtig/Falsch* und *Die ersten vier Wörter*) korrekt sein müssen, um mit einem Punkt bewertet werden zu können.

Jede richtige Antwort wird mit einem Punkt bewertet. Bei jeder Aufgabe finden Sie eine Angabe zu den maximal erreichbaren Punkten.

Viel Erfolg!

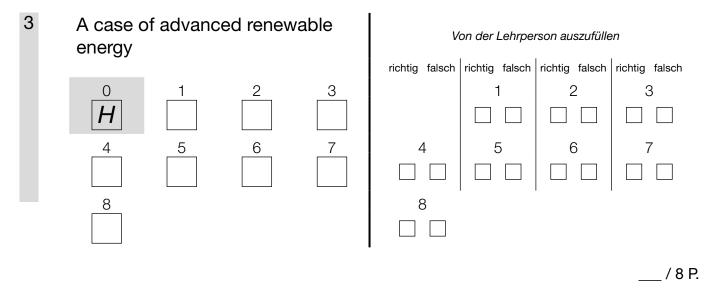
ANTWORTBLATT



An emperor's dream		Von der Lehrperson auszufüllen		2
0	his physicians	richtig	falsch	
1				
2				
3				
4				
5				

____ / 5 P.

ANTWORTBLATT



Going on a "safari" in Britain			Von der Lehrperson auszufüllen		
	Т	F	First four words		
0		X	We leaned with him,	richtig	falsch
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2					
3					
4					
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6					
7					
8					

____ / 8 P.

7 P.

Read the text about research on possible consequences of a plant-based diet. Then choose the correct answer (A, B, C or D) for each question (1-7). Put a cross (\boxtimes) in the correct box on the answer sheet. The first one (0) has been done for you.

Health effects of veganism

The idea that avoiding meat is bad for our brains makes some intuitive sense; anthropologists have been arguing about what our ancestors ate for decades, but many scientists think that there was a lot of bonecrunching and brain-slurping on the road to evolving these remarkable 1.4kg (3lb) organs. Some have even gone so far as to say that meat made us human.

One reason is that intelligence is expensive – the brain devours about 20% of our daily calories, though it accounts for just 2% of our body weight – and what better way to find the enormous array of fats, amino acids, vitamins and minerals these fastidious organs require, than by feasting on animals which have already painstakingly collected or made them.

But though it's hard to imagine our ancestors choosing turnips over tuna, today it's a different story. According to the latest statistics, there are around 375 million vegetarians on the planet. In the West, veganism has ditched the hippie stigma to become one of the fastest-growing millennial trends; in the United States, it grew by 600% between 2014 and 2017. Meanwhile in India, meat-free diets have been mainstream since the 6th century BCE.

On the one hand, recent concern about the nutritional gaps in plant-based diets has led to a number of alarming headlines, including a warning that they can stunt brain development and cause irreversible damage to a person's nervous system. Back in 2016, the German Society for Nutrition went so far as to categorically state that – for children, pregnant or nursing women, and adolescents – vegan diets are not recommended, which has been backed up by a 2018 review of the research. After the Royal Academy of Medicine in Belgium decided a vegan diet was "unsuitable" for children, parents who force a vegan diet on their offspring in Belgium could even one day find themselves in prison.

But on the other, if abstaining from meat had any real impact on our brains, you would think that we would already have noticed. So is it really damaging our intellects, or is this all just fear of the unknown? Ideally, to test the impact of the vegan diet on the brain, you would take a randomly selected group of people, ask half to stop eating animal products – then see what happens. But there isn't a single study like this.

Instead, the only research that comes close involved the reverse. It was conducted on 555 Kenyan schoolchildren, who were fed one of three different types of soup – one with meat, one with milk, and one with oil – or no soup at all, as a snack over seven school terms. They were tested before and after, to see how their intelligence compared. Because of their economic circumstances, the majority of the children were de facto vegetarians at the start of the study.

Surprisingly, the children who were given the soup containing meat each day seemed to have a significant edge. By the end of the study, they outperformed all the other children on a test for non-verbal reasoning. Along with the children who received soup with added oil, they also did the best on a test of arithmetic ability. Of course, more research is needed to verify if this effect is real, and if it would also apply to adults in developed countries, too. But it does raise intriguing questions about whether veganism could be holding some people back.

0 Some researchers claim that, for humans, eating animal products

- A has negative health effects.
- B is an essential part of evolution.
- C could put an end to world hunger.
- D is avoidable nowadays.

1 People's diet could affect their mental capacity because

- A brain function slows down while eating.
- B chemicals interfere with neurological processes.
- C human intelligence is connected to the weight of the brain.
- D thinking uses a comparatively high amount of energy.

2 In one part of Asia, being a vegetarian

- A is still considered upper-class.
- B has only recently become accepted.
- C is seen as a sign of poverty.
- D has been widespread for a long time.

3 Worries about vegan malnutrition

- A alarmed families of teenagers.
- B were debated at various medical conferences.
- C caused sensational media coverage.
- D turned out to be without any reason.

4 Official nutritional guidelines in Germany

- A are published regularly.
- B were confirmed by a later scientific study.
- C forbid veganism for teenagers.
- D were revised two years later.

5 In the future, families who only feed their children plant-based products

- A could be breaking the law in a European country.
- B may be seen as caring about their children's health.
- C will do so due to lack of money to buy meat.
- D will often be animal rights activists.

6 The pupils analysed in one study

- A were put into four groups.
- B were malnourished.
- C had to pass a test.
- D had to stop eating meat.

7 Concerning maths skills, a Kenyan study showed that

- A dairy products have the same effect as meat.
- B eating meat only has a minimal effect.
- C the effect of meat is similar to another ingredient.
- D results can easily be generalised.

Read the text about an archaeological discovery. Answer the questions (1-5) using a maximum of 4 words. Write your answers in the spaces provided on the answer sheet. The first one (0) has been done for you.



An emperor's dream

The Chinese Emperor had done all he could to become immortal, but in vain. His physicians had prepared herbal and alchemical elixirs, but none could stave off his decline. He had sent a minister on a voyage far over the eastern seas in search of a mythical potion of eternal life. But that expedition never returned, and now the quest seemed hopeless. So Qin Shi Huangdi, the First Emperor of a unified China in the third century BC, had begun preparations for the next best thing to an endless life on Earth. He would continue his cosmic rule from the spirit world, and his underground tomb would be a palace for the afterlife, complete with its own army of life-size clay soldiers.

Those terracotta warriors lay hidden for two thousand years beneath several metres of sandy soil a mile from the First Emperor's burial mound at Mount Li, to the northeast of the city of Xi'an in Shaanxi province of north-central China. They were rediscovered in 1974 by farmers digging a well, and Chinese archaeologists were astonished to find over the next decade that there were at least 8,000 of them, once brightly painted and equipped with clay horses and wooden chariots. As further excavation revealed the extent of the Emperor's mausoleum, with offices, stables and halls, along with clay figures of officials, acrobats and labourers and life-size bronze animals, it became clear that the Han dynasty historian Sima Qian, writing in the second century BC, hadn't been exaggerating after all. He claimed that 700,000 men had worked on the Emperor's tomb, constructing entire palaces, towers and scenic landscapes through which the Emperor's spirit might roam.

No one knows what other wonders the mausoleum might house, for the main burial chamber – a football-pitch-sized hall beneath a great mound of earth – remains sealed. Most enticing of all is a detail relayed by Qian: 'Mercury was used to fashion the hundred rivers, the Yellow River and the Yangtze River, and the seas in such a way that they flowed'. This idea that the main

chamber contains a kind of microcosm of all of China (as it was then recognised) with rivers, lakes and seas of shimmering mercury had long seemed too fantastic for modern historians to grant it credence. But if Qian had not been inventing stories about other elaborate features of the mausoleum site, might his account of the tomb chamber be reliable too?

In the 1980s, Chinese researchers found that the soil in the burial mound above the tomb contains mercury concentrations way above those elsewhere in the vicinity. Now some archaeologists working on the site believe that the body of the First Emperor may indeed lie amidst vast puddles of the liquid metal.

Yet it seems unlikely that anyone will gaze on such a sight in the foreseeable future. 'We have no current plan to open the chambers,' explains archaeologist Qingbo Duan of Northwest University in Xi'an, who led the mausoleum excavations from 1998 to 2008. 'We have no mature technologies and effective measures to protect the relics,' he says. So can we ever know the truth about Qin Shi Huangdi's rivers of mercury?

0	Who failed to produce a substance that would save the Emperor's life?
1	What future function would the Emperor's tomb serve for him?
2	What had the terracotta warriors been given? (Give <u>one</u> answer.)
3	How big is the most important part of the tomb?
4	What was believed to be recreated as a whole in the most important part of the tomb?
5	What did scientists discover was unusually high in the area around the tomb?

8 P.

Read the text about a new kind of solar power plant. Some parts are missing. Choose the correct part (A-K) for each gap (1-8). There are two extra parts that you should not use. Write your answers in the boxes provided on the answer sheet. The first one (0) has been done for you.

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A case of advanced renewable energy

Crescent Dunes looks and sounds a bit like an invention lifted from a science fiction novel. Deep in the Nevada desert more than 10,000 mirrors — each the size of a highway billboard — neatly encircle a giant 640-foot tower. It looks like it might be used to communicate with aliens in deep space.

But the engineers and financiers behind the facility, located in the desert about halfway between Las Vegas and Reno, say the power plant's promise (0) ____. The solar power facility built and operated by the company SolarReserve can power 75,000 homes. What sets it apart from other big solar projects is that this plant can store power for use when it is most needed, including cloudy days and after dark—a major advance for renewable energy technology.

"This (1) ____ with this technology," says SolarReserve CEO Kevin Smith. "Our technology can truly replace conventional generation."

Most solar power plants, which use photovoltaic technology, capture energy through the solar panels themselves, converting the sun's light straight to electricity and then (2) ____. That's great when the sun is shining, but a few clouds can render the plants useless. And if it's sunny when the power isn't needed, the electricity will be wasted.

The Crescent Dunes plant and others in the class known as concentrated solar, (3) ____. The plant uses thousands of mirrors to reflect light into a central tower. Inside, concentrated sunlight heats up liquid salt to over 1,050°F (566°C). Salt is capable of retaining very high levels of heat, (4) ____. When the utility company needs electricity on the grid, plant operators use the stored heat in the molten salt to power a traditional steam turbine. Altogether the process emits a whopping total of zero tons of carbon.

Crescent Dunes is one of three concentrated solar plants developed by SolarReserve and it is the first fullscale plant built in the U.S. But the technology has the potential to expand rapidly in the coming years as regulators continue a push for clean energy. States like California and New York have both committed to (5) ____ in the coming decades—a change that would be difficult to accomplish without some form of clean energy storage. Just how much the concentrated solar market will grow in the coming years (6) ____. The method of collecting and storing energy is relatively new and expensive, but widespread deployment (7) ____, says Professor Jay Apt of the Carnegie Mellon Electricity Industry Center.

"We're all hoping that, just like photovoltaic power, we'll start getting on the downward slope of the learning curve," says Apt. "If you crank a whole lot of those units, you'll learn to do it better."

Even with significant cost reductions, concentrated solar (8) _____ that could make it easier to store power in electrical form—increasing the desirability of other renewable energy sources like photovoltaic and wind power. But Smith says his company's technology has advantages over the competing methods right now.

"People are spending a lot of money on the battery market," he says. "But [Crescent Dunes] is more storage than all the utility-scale batteries in the world combined."

А	does not have that problem	
В	making it difficult to store the energy produced	
С	is the first utility-scale facility in the world	
D	will depend primarily on the cost of deploying the technology	
Е	is too good to be true	
F	routing it onto the grid for immediate use	
G	will need to face off against advances in battery technology	
Н	is anything but fiction	
Ι	getting 50% of their power from renewable sources	
J	turning it into a kind of thermal battery	
К	could reduce the costs to make it competitive	



Read the text about a family holiday. First decide whether the statements (1-8) are true (T) or false (F) and put a cross (\boxtimes) in the correct box on the answer sheet. Then identify the sentence in the text which supports your decision. Write <u>the first 4 words</u> of this sentence in the space provided. There may be more than one correct answer; write down <u>only one</u>. The first one (0) has been done for you.



Going on a "safari" in Britain

"It's a kingfisher!" Ed's boy swung round and leaned forward, his arm following a wavelike motion, the bird soaring above the water at Cannop Ponds in the Forest of Dean. We leaned with him, scanning the sky. "There it is, there it is." Ed Drewitt, our guide, had spotted its landing perch in a pine around 400m away. "Wow, I'd love to be able to do that," my daughter whispered. Ed got his binoculars out so we could glimpse the orange belly of the bird, the first kingfisher he'd seen this year, he told us excitedly. Ed, a passionate zoologist, was taking us on an "animal safari", offered to guests staying at the Tudor Farmhouse in the heart of the Forest of Dean. The "safari" is perfect for animal lovers, including my daughter Sophie, 20, studying animal management, and my 16-year-old son Toby.

We'd arrived the afternoon before and, thanks to the hotel's map of wild swimming spots, headed straight out to the River Usk, half an hour away, sinking into the water from a tiny island beach in the centre of a bend in the river. After a slow journey on clogged motorways, it was a refreshing and magical way to start our forest adventure. Back at the hotel, we enjoyed cocktails in the garden, before stepping across a wooden bridge over a tiny stream that led inside to dinner. I was impressed by the variety on the menu, particularly for someone like me who is gluten- and dairy-free, and by the fact that much of it was locally sourced – and tucked into delicately flavoured beetroot and cured salmon, followed by pork belly with roast onion. The next morning, it was a short drive to Puzzlewood, the inspiration for Tolkien's Middle-earth, an area of woodland where moss carpets a landscape of rocks and trees. We ambled up paths and across bridges, trying to spot the precise locations for scenes from *Star Wars* and *Doctor Who*, both of which were filmed here.

Following a lazy afternoon at the hotel – me on the terrace drinking in the views, Sophie and Toby in front of the TV – we set off for a picnic at Wenchford, before Ed collected us from the hotel. Stopping at the ponds, he was soon in raptures at the sight of wagtails, mandarin ducks, coots, gold finches, chaffinches and, of course, that kingfisher.

What we were itching to see were wild boars, the pigs which were once native here, before being hunted to extinction. But then, 10-15 years ago, they were reintroduced by an anonymous breeder who released a few into the woods. As prolific breeders with no natural predators, the boars quickly multiplied and today there are an impressive 1,500 of them. Deep into the forest Ed led us, encouraging us to inhale the hop-like scent of flowering horse chestnuts and the freshness of wild mint, as the words and rhythm of Michael Rosen's *We're Going on a Bear Hunt* played in my head. Suddenly we heard snuffling and grunting and the sound of twigs snapping under trotters. We stood still, peering into the trees, slightly scared by the prospect of the untamed beasts we could hear, but wanting to see them, too. Minutes passed. The sound died away. We marched on.

0	The family hesitated to pay attention to what the guide's son was showing them.
1	The tour the family took is available to everyone in the area.
2	Online research helped the family access the surrounding area.
3	The author liked where the products at the Tudor Farmhouse came from.
4	The family went on a walk looking for places relevant in popular culture.
5	The family's top priority was to go bird-watching.
6	One animal species swiftly re-established itself in the area.
7	The tour concentrates on encounters with animals only.
8	The noises in the forest caused the family to have mixed feelings.

Bildquellen

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Aufgabe 3: © Oskar / www.fotolia.com

Aufgabe 4: © bawbag / www.pixabay.com

Textquellen

Aufgabe 1: Gorvett, Zaria: How a vegan diet could affect your intelligence. https://www.bbc.com/future/article/20200127-how-a-vegan-diet-could-affect-your-intelligence [21.03.2023] (adaptiert).

Aufgabe 2: Ball, Philip: Flowing rivers of mercury. https://www.chemistryworld.com/features/flowing-rivers-of-mercury/8122.article [24.04.2023] (adaptiert).

Aufgabe 3: Worland, Justin und Josh Raab: This solar power plant can run all night. http://time.com/4291347/crescent-dunes-solar-power-plant/ [21.03.2023] (adaptiert).

Aufgabe 4: Edgley, Kate: We're going on a boar hunt: into the Forest of Dean. https://www.theguardian.com/travel/2019/sep/15/we-are-going-on-a-boar-hunt-forest-of-dean [21.03.2023] (adaptiert).