UNIcert® III- Prüfung
Dezernat V – Internationale Angelegenheiten
Fachsprachenzentrum

Englisch für die Naturwissenschaften
Fachsprachliche Aufgaben
Dezember 2014

Dauer: 45 Minuten

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MATRIKELNUMMER: _________________________________
You're working in cooperation with the student organisation ‘Greening the University’ in Tübingen in order to publish the first English language magazine titled ‘Science, Ethics & Sustainability’. The aim of the magazine is to raise awareness of and engage readers in a number of current scientific, ethical and sustainability topics.

Due to the fact that you have completed a number of English courses at the University's Language Learning Centre on the topics for the first issue, your expertise has been called upon.

The team has asked you to complete the following tasks on the fields of 1) sustainability, 2) science and ethics, and 3) scientific publications and applications in order to help them.

You will be marked on both content and use of language.

**SECTION A: In this section, your knowledge of sustainability topics is required.**

**Question 1**

We have read that being able to measure and assess sustainability is an important step in achieving sustainable development. Can you explain to us what the ecological footprint measures and what it indicates? (2 points for content, 2 points for language)

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**Question 2**

Jamie Oliver is a prominent chef, who will be known by many of our readers. Can you explain why his restaurant ‘Fifteen’ is a good example of social entrepreneurship? (1 point for content, 1 point for language)

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Question 3

In Tübingen it has become a lot more common to see produce with a ‘fair trade’ label. In order to convince our readers to buy such products, can you list five of the ten principles of fair trade? (5 points for content)

1. __________________________________________________________________________
2. __________________________________________________________________________
3. __________________________________________________________________________
4. __________________________________________________________________________
5. __________________________________________________________________________

Question 4

Due to the sustainable benefits of passive houses and the lack of student accommodation, Tübingen should consider building such houses for the ever increasing number of students. Can you name two environmental and two economical benefits of passive houses to illustrate this point to our readers? (4 points for content)

Environmental

1. __________________________________________________________________________
2. __________________________________________________________________________

Economic

1. __________________________________________________________________________
2. __________________________________________________________________________

SECTION B: In this section, your knowledge and own opinion on certain ethical issues is required for a section of the magazine to encourage readers’ comments.

Question 1

Amazon is considering using drones to deliver its goods, which might effect many of our readers. Can you name four potential pitfalls of using drones for this purpose? (0.5 point per content point)

1. __________________________________________________________________________
2. __________________________________________________________________________
3. __________________________________________________________________________
4. __________________________________________________________________________
Question 2

Genetic enhancement is tinkering with DNA to bring about advantageous traits. It can be compared to parents being able to order from a menu of desirable traits for their children. Decide whether you think parents should be able to design a baby giving four supporting arguments. (4 points for content, 4 points for language)

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Question 3

Artificial intelligence is poised to revolutionise our lives, which means driverless cars could be on our roads in the near future. Can you name four ethical implications of driverless cars? (4 points for language, 2 points for language)

1. _______________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

2. _______________________________________________________________________

3. _______________________________________________________________________

4. _______________________________________________________________________

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Question 4

The planet faces the prospect of having to feed 10 billion people by 2050, which means we must address the global food scandal. Can you name four ways in which our readers can curb their food waste? (4 points for content)

1. __________________________________________________________

2. ________________________________________________________________________

3. ________________________________________________________________________

4. ________________________________________________________________________

SECTION C: In this section, your knowledge of scientific publications and applications is required in order to give advice to fellow students.

Question 1

Can you explain to our readers what the purpose of a scientific poster is and also give our readers three tips to follow when producing such a poster? (4 points for content, 4 points for language)

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MATRIKELNUMMER: __________________________________________ 5 / 6
Question 2 /3

If you had to write a publication on the topic ‘what effect stress has on the brain’, can you name three main points that you would expand upon? (3 points for content)

1. ______________________________________________________________________
2. ______________________________________________________________________
3. ______________________________________________________________________

Question 3 /4

Assessment centres are often used by companies as a part of the recruitment process, can you give our readers four tips on how they can prepare for an assessment centre? (4 points for content)

1. ______________________________________________________________________
2. ______________________________________________________________________
3. ______________________________________________________________________
4. ______________________________________________________________________
UNIcert® III - Prüfung
Dezernat V – Internationale Angelegenheiten
Fachsprachenzentrum

Englisch für die Naturwissenschaften
Leseverstehen
Dezember 2014

Dauer: 45 Minuten

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MATRIKELNUMMER: ________________________________ 1 / 6
UK opposition could doom EU efforts to curb plastic bag use

A bid by the European parliament to impose an 80% cut in the 100bn plastic bags used by Europeans each year could be scuppered by several states opposed to Europe-wide action, and a European commission that increasingly views targets as an unnecessary distraction. ‘Single use’ plastic bags are light, convenient and easily thrown away but their very disposability creates an environmental threat. As many as a million seabirds and 100,000 sea mammals – including large numbers of seals and turtles – are killed each year by ingesting plastics or becoming entangled in the growing number of plastic islands that gloss large swathes of the world’s oceans.

But several countries led by the UK and Croatia are opposing EU-wide mandatory pricing or product restrictions for plastic bags. France and Spain are more supportive but the commission’s first vice president Frans Timmermans on Wednesday said that he was “not sure” whether the proposal reflected the previous commission’s original intent.

The average EU citizen used 191 plastic bags in 2010 and only 6% of them were recycled, according to the commission. But when Ireland introduced mandatory pricing for single-use plastic bags in 2002, their use was reduced by 90% within a year.

British opposition to a bag ban has been derided by Greens in the European parliament who have focused their fire on a strong UK stand against a ban of ‘oxo-degradable’ plastic bags, despite contrary advice from the UK environment department. The Greens suggest the UK’s position is a result of the business affairs of leading Tory politicians and the government’s Eurosceptic impulses.

Studies by the Department for Food, Environment and Rural Affairs (Defra) and others suggest that the bags take two-five years before degrading, after which their additives help fragment the plastic into micro-plastics, which stay in the environment for many more years and cannot be composted or recycled.

“We are faced with a situation where a Tory government in the UK is fighting hard to defend a very small company with Tory ties, using absurd technology that creates environmental problems and turning the issue into another power struggle between the EU and the UK,” said Margrete Auken, the Green MEP and parliamentary rapporteur on plastic bags.

In Brussels too, facing down the plastic bags proposal and other environmental plans left over from José Manuel Barroso’s term is seen by some as a way of cementing the new commission’s image.

A block on the bags dossier would be in line with a document sent by Timmermans and Jean-Claude Juncker to other commissioners on 7 November, seen by the Guardian, which
suggests “withdrawing pending proposals” from the previous administration in a works
35 programme due to be announced on 16 December.
Laws pencilled in “for review” include: a clean air package which would include mandatory
curbs on atmospheric pollutants; a waste package with binding recycling targets of up to 80% for 2030, and an energy taxation directive.
Several cross-party MEPs have already reacted with a strong letter to Juncker defending the
clean air and waste packages for their “huge potential for jobs and growth, as well
40 as environmental benefits.”
The Dutch Liberal MEP Gerben-Jan Gerbrandy told the Guardian that talk of burying such key
environmental policies was “unacceptable,” and symptomatic of a commission retreat on
environmental issues.
45 “The letter by Juncker and Timmermans is extremely alarming,” he said. “I find it
unbelievable that Juncker and his people seem to believe that the environmental agenda
is damaging competitiveness and growth. He seems to be trying to revive the last century
economy we had in the 1980s instead of looking at the clean economy we’ll need in the
coming years. In the future, a company will either be sustainable or it won’t be there at all.”
On Gerbrandy’s initiative, Timmermans has now been invited to explain his thinking at
50 a forthcoming environment committee meeting in parliament.
An EU source told the Guardian that the underlying issue was about the value of legally
enforceable action itself. “It is in the air that it’s not good to have targets,” the source said.
“There’s an idea that there are too many targets and we shouldn’t have yet another one.”
55 The single-use plastic bags goal chosen by the European parliament is ambitious – for a
50% reduction within three years, rising to 80% by 2019 – with states retaining the choice to
impose mandatory pricing or manufacturing restrictions.
The commission’s impact assessment predicted that this would bring €740m of savings across
Europe of per year due to reduced litter collection, easier waste management and increased
50 retail profits.
England plans to introduce a 5p plastic bag charge in October 2015, following similar
schemes in Wales and Scotland.

Adapted from: theguardian.com, Thursday 13 November 2014
A. Please answer the following questions using the information in the text. /16

1) What is the European parliament proposing with regard to plastic bags? (2)

2) Why are plastic bags such a threat for the environment? (4)

3) What two things are a number of countries objecting to? (2)

4) Why are oxo-degradable bags not considered environmentally friendly? (3)

5) Regarding ‘oxo-degradable’ plastic bags, who is in favour of their use? (1)

6) Why is the ban on plastic bags also not supported by Brussels? (1)
7) Why are some MEPs upset by the document sent out by Timmermans and Juncker? (2)

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8) What is the argument against having targets in general? (1)

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B. Explain the following terms from the text /5

1) ‘A bid by the European parliament could be scuppered by several states’ (line 1-2) (1)

______________________________________________________________________

______________________________________________________________________

2) ‘Seabirds and sea mammals are killed by ingesting plastics’ (line 5-7) (1)

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3) ‘Opposition to the ban has been derided by Greens’ (line 16) (1)

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4) ‘Laws pencilled in “for review”’ (line 36) (1)

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______________________________________________________________________

5) ‘talk of burying such policies was unacceptable’ (line 42 – 43) (1)

______________________________________________________________________

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MATRIKELNUMMER: ________________________________
C. Please give a synonym for these words or expressions that fits the context of the text. /6

1) swathes (line 8) ____________________________________________ (1.5)

2) mandatory (line 17) ________________________________________ (1.5)

3) facing down (line 29) ______________________________________ (1.5)

4) curbs (line 37) _____________________________________________(1.5)
# UNIcert® III - Prüfung

Dezernat V – Internationale Angelegenheiten
Fachsprachenzentrum

## Englisch für die Naturwissenschaften

### Schriftlicher Ausdruck

Dezember 2014

Dauer: 60 Minuten

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MATRIKELNUMMER: ___________________________________ 1 / 2
The next issue of the university student magazine will deal with environmental issues that affect students at the university. You have been asked to submit an article with the following title:

**Should the university ban disposable cups from its vending machines and cafes?**

Please write your article putting forward your views on the subject. There is no word limit but you should plan to write a complete article in the time available. You will be assessed on content, structure, language and style.
Englisch für die Naturwissenschaften
Hörverstehen
Dezember 2014

Dauer: 30 Minuten

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| Unterschrift ………………………… | Unterschrift ………………………… |
| Mittelwert (Punkte): …………. | Note: …………………………… |

MATRIKELNUMMER: _______________________________
Listen to the following two reports from CNN News and answer the following questions. You will be marked mostly on content and not on grammar and style. The numbers in brackets are the points available for the question.

Fracking

1. What is the problem with the Pennsylvanian inhabitants’ water supply? (1)

2. What is described as the Marcella Shale process? (1)

3. How is the term ‘fracking’ defined scientifically? (1)

4. Can you name three parts of the fracking process, as described in the video? (3)

5. How is the gas trapped in the shale described? (1,5)

6. What is the homeowner’s wife Julie Sautner’s response? (2)
7. How did the Department of Environmental Protection react to the homeowners’ claim? (3)

8. What is Cabot’s positioning on this? (3,5)

9. What do homeowners want, in order to try to protect their homes? (2)

Food’s Carbon Footprint

10. Name two pieces of evidence supporting the globalisation of food supplies, as mentioned in the video. (2)
11. Name three points the narrator makes about strawberry growth. (3)

12. What does he say has to change? (2)

13. Name three reasons why the issue of food balance is becoming more important. (3)

14. What should we be considering for the future, according to the narrator, regardless of where we live? (2)