Inhaltsverzeichnis

1 Betonungszeichen, „stressmarks“

manufacturer	manu´facturer
alternator	´alternator
diameter	di´ameter
intermediate	inter´mediate
longitudinal	longi´tudinal
speedometer	spee´dometer
maintenance	´maintenance
alternative	al´ternative
components	com´ponents
durability	dura´bility
insulated	´insulated
representative	repre´sentative
sophisticated	so`phisticated
immediately	im`mediately
competitive	com`petitive
conservationists	conser`vationists
calculator	`calculator
executive	ex`ecutive
opportunity	oppor`tunity
cylinder	`cylinder
consolidated	con`solidated
adequate	`adequate
engineering	engi`neering
distributed	dis`tributed
insulated	`insulated
Aviation	Avi`ation
fuselage	`fuselage
satisfactory	satis´factory
advertising	`advertising
uncontrollable	uncon`trollable
aluminium	alu`minium

ignition	ig`nition
permanent	`permanent
electronics	elec`tronics
continuously	con`tinuously

2 Mathe

$A = \frac{\pi \cdot d^2}{4}$ Capital A equals pi times small d squared divided by four.

$\frac{3}{7}$ is a fraction ; fraction line ; three over seven

$\binom{a}{b}$ binominal a over b

7 is the denominator of $\frac{3}{7}$

3 is the numerator of $\frac{3}{7}$

$v = 120\ km/h \pm 3\%$ Small v equals one hundred and twenty kilometres per hour with an error of plus minus three per cent.

$5\ {}^{0}\!/_{00}$ five per thousand

$\frac{\pi}{8} = 0.3926$ pi over eight equals point three nine two dot dot dot.

$0.\overline{7}$ point seven in period

$t_h = \frac{L \cdot i}{s \cdot n}$ Small t sub small h equals capital L times small i all over small s times small n.

$\frac{2`}{3}$ two inches over three

$3\frac{2`}{4}$ three inches and two quarters

$5\frac{3}{4}$ five and three quarters

$2 + 3 = 5$ two plus three equals five

$7 - 3 = 4$ seven minus three equals four

$3 \cdot 4 = 12$ three multiplied by four equals twelve

$16 : 4 = 4$	sixteen divided by four equals four
$\frac{3}{8}\ g$	three eighths of a gram
$3\frac{2}{7}\ l$	three litres and two sevenths
a^2	small a squared
a^3	small a to the power of three
$\sqrt{a}$	square root of a
$\sqrt[5]{a}$	the fifth root of a
a_b^{-3}	small a sub small b to the power of minus three
$g \approx 10\ m/s^2$	small g is approximately ten metres per second squared
$a \equiv b$	small a is identical with small b
$a \sim b$	small a is directly proportional to small b
$a \approx b$	Small a is approximately (equal) to small b.
$\equiv$	identity sign
$\sim$	proportionality sign
$\approx$	approximation sign
$a > b$	small a is greater than small b
$a < b$	small a is less than small b
$a \geq b$	small a is greater than or equal to small b
$\int_a^b x\ dx$	Integral with respect to x dx from a to b

first	eighth
second	ninth
third	tenth
fourth	eleventh
fifth	twelfth
sixth	thirteenth
seventh	twenty - first

	a and b are the limitations, x is the integrant, dx is the integral variable
$x = \log_a y$	small x equals logarithm of small y to the base of small a
y' , $\dot{y}$	small y prime, small y dot
y'' , $\ddot{y}$	small y double prime , small y double dot , the second derivative of y with seconds of time
( )	round brackets
[ ]	square brackets
{ }	curly brackets

Zahlen

zero	thirty
one	thirty-one
two	forty
three	fifty
four	sixty
five	seventy
six	eighty
seven	ninety
eight	one hundred
nine	a hundred and one
ten	two hundred
eleven	five hundred and seventy-two
twelve	thousand
thirteen	
fourteen	
fifteen	
sixteen	
seventeen	
eighteen	
nineteen	
twenty	
twenty-one	
twenty-two	

3 so …I or neither … I

1. They drove to Leeds in May.	*So did I.*
2. They aren't found of geometry.	*Neither am I*
3. She's found a good second-hand car.	*So have I*
4. He reads a lot of technical journals at home.	*So do I*
5. He hasn't got a motor bike.	*Neither have I*
6. They haven't got a motor bike.	*Neither have I*
7. She flew to London in April.	*So did I*
8. He's worked there for quite a while.	*So have I*
9. She's fond of the new word processor.	*So am I*
10. She has a lot of operating manuals at home.	*So have I*
11. He isn't interested in geometry.	*Neither am I*
12. The foreman checked the bolts first.	*So did I*
13. She hasn't changed the design of the car yet.	*Neither have I*
14. They haven't got a tape recorder.	*Neither have I*
15. He has a video cassette at home.	*So have I*
16. The technician is able to repair a computer.	*So am I*
17. She checked the second-hand car first.	*So did I*
18. They weren't in London six weeks ago.	*Neither was I*

4 Übersetzungen

1. Ein Spannfutter (Bohrfutter) ohne Schlüssel muss nicht teurer sein, als ein herkömmliches dieser Qualität.

A keyless chuck needn't be more expensive than conventional one of this quality.

2. Ich interessiere mich besonders für diese Fräsmaschine. Sie wird für unsern Fachbereich dringend benötigt.

I am particularly interested in this milling machine. It is urgently needed for our department.

3. Da die Milwaukee-Matic 1015 robust gebaut ist, werden Sie keine Probleme mit Wartungsarbeiten haben.

Since the Milwankee-Matic 1015 is robustly built, you won't have any problems with maintenance work.

4. Programmierte Steuerungen öffnen automatisch verschweißte Stahlrohre, die einen Durchmesser von zwanzig Zoll haben.

Programmed controls automatically open welded steel tubes which have a twenty–inch diameter.

5. Viele Ingenieure warten seit mehreren Jahren auf dieses hoch entwickelte System, obwohl es auch nicht ausfallsicher ist.

Many engineers have been waiting for this highly sophisticated system for several years although it is not fail save.

6. Der Computer hat die Berechnungen für unsere qualitativ hochwertigen Objekte ausgearbeitet, so dass die Produktion anlaufen kann.

The computer has worked out the calculations for ours high-quality lenses, so that production can start.

7. Der Bremsweg war verhältnismäßig kurz, wenn man bedenkt, dass die Überprüfung auf einer rutschigen Oberfläche durchgeführt wurde.

The stopping distance was exceptionally short, considering the test was done on a wet surface.

8. Vor zwei Wochen haben wir acht zusätzliche Computer bestellt, weil wir robuste Geräte bevorzugen, die zuverlässig sind.

Two weeks ago we ordered eight additional computers, because we prefer robust devices which are reliable.

9. Die Verarbeitungsanlage (VIP) akzeptiert Anweisungen nur von der Person, auf deren Stimme sie programmiert ist.

The manufacturing management only accepts instructions by the person on whose voice it is programmed.

10. Ein schönes Flugzeug! Haben Sie letzten Sommer auch die Ausführung mit dem verlängerten Rumpf gekauft?

Nice aeroplane! Did you also buy the version with the extended fuselage last summer?

11. Gestern hat er den ganzen Nachmittag damit verbracht, die Objektive seines Fotoapparates zu säubern. (die Dichtungen zu überprüfen.)

He spent the whole afternoon yesterday, cleaning the lens of his camera.
(checking the gasket.

12. Die Drehzahl –(Geschwindigkeit-)regulierung war schon verwendet worden, bevor die neue Bohrmaschine eingeführt wurde.

The speed- regulation has already been used, before the new drilling – machine was introduced.

13. Letzte Woche haben wir fünf zusätzliche Taschenrechner bestellt, weil wir mit den ersten sehr zufrieden waren.
We ordered five additional pocket calculators last week, because we were very satisfied with the first one.

14. Da wir das Computerprogramm selbst geschrieben hatten, konnten wir keinen anderen für die Fehler verantwortlich machen.

Because we had written the computer program on our own, we couldn't hold someone responsible for the mistakes.

15. Ich hatte die Fräsmaschine bestimmt benutzt, wenn wir keinen Stromausfall gehabt hatten.

I would have used the milling machine, if we hadn't had a power failure.
16. Für ihre künftige Position werden Sie mindestens ein Examen in Elektrotechnik und etwas Berufserfahrung benötigen.

For your future position you will need at least one exam in electronics and a little bit job experience.

18. Soweit ich weiß, sind Wasserdüsen im allgemeinen unkomplizierter als Flugzeugmotoren aller Art.

As far as I know, water jets are in general simpler than aeroplane engines of every kind.

19. Diese Zündkerzen durften bei den Modellen der frühen achtziger Jahre nicht genommen werden.

These spark plugs weren't allowed to be used on the models of the early eighty years.

20 Er hat gestern mehrere Stunden damit verbracht, den Fehler in dem herkömmlichen Gerät zu suchen.

He spent several hours yesterday, searching for the mistake in the ordinary device.

21. Er fährt vorsichtig, seit sein Auto bei einem schweren Unfall im vergangenen Jahr beschädigt worden ist.

He drives carefully, since his car was damaged during a hard accident in the last year.

22. Diese Bauteile durften bei dem Model! LP600 nicht genommen werden, weil sie überhaupt nicht passten.

These components weren't allowed to be taken on the model LP600, because they didn't fit at all.

23. Wenn sie mir alle Betriebsanleitungen gegeben hätten, hätte ich die Fräsmaschine bestimmt reparieren können.

If you had given me all manuals, I would certainly have been able to repair the milling machine.

24. Soweit ich weiß, sind Wasserdüsen im allgemeinen unkomplizierter als Flugzeugmotoren alter Art.

As far as I know, waterjets are in general simpler than aeroplane-engines of every kind.

25. Um Benzin zu sparen, können sie zum Beispiel regelmäßig das Motoröl und den Luftfilter wechseln.

To save gasoline, you can change for example regularly the motor oil and the air filter.

26. Sie hätten ihm sagen sollen, dass die Bohrmaschine jeden tag geölt werden muss.

You would have been supposed to tell to him, that the drilling machine must be oiled every day.

27. Dieses Modell hat seit mindestens zwei Jahren einen eingebauten Belichtungsmesser.

This model has had a built-in exposure meter for at least two years.

28. Sie versuchen jetzt schon seit vierzig Minuten, den Staubsauger zu reparieren.

They have already been trying to repair the vacuum cleaner for forty minutes now.

29. Als wir ihn trafen, war der Antriebmotor bereits eingebaut worden.

When we met him, the drive motor had already been installed.

30. Richtig behandelt, halten Transistoren fast unbegrenzt.

Transistors correctly handled, almost run for an unlimited reiod.

40. Wenn sie mich gefragt hätten, hätte ich ihr das Weitwinkelobjektiv gegeben.

If she had asked me, I would have given her the wide angle lens.

41. Wenn wir eine bessere Klimaanlage gehabt hätten, wäre die Arbeit leichter gewesen.

If we had had a better air condition, the work would have been easier.

42. Wenn er nicht so schnell gefahren wäre, hätte er keinen Strafzettel bekommen.

If he hadn't driven so fast, he wouldn't have got a ticket.

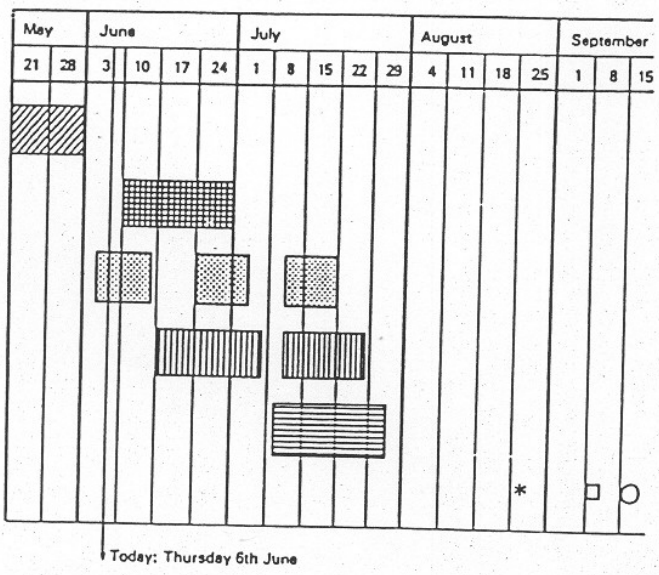
5 Textverständnis

5.1 Text 1) Saudi Projekt

JIM: Hi, Chris. It's Jim here. I'm calling about the Saudi project ... to find out how the work's coming along.
CHRIS: Not bad, we're mostly on schedule.
JIM: Has all the equipment been installed?
CHRIS: Yes, we finished installation last week. We start testing the machines on Monday next week. JIM: How long will that take?
CHRIS: Well, we've scheduled three weeks so we should finish at the end of the month. JIM: Good. What else?
CHRIS: Well, the operator training has already started. We kicked off on Wednesday this week and the first course ends next Friday.
JIM: Oh yes, that was one of the things I wanted to mention. Fred Hyman, the maintenance trainer should arrive at the weekend.

CHRIS: Fine, do you know what time?
JIM: No, but I expect he'll arrive at 12 on Saturday. I'll fax you as soon as I know for certain.
CHRIS: OK. Anyway he'll have a week before he starts training. The first maintenance course is due to begin a week from Monday.
JIM: When do you plan to finish the training programme?
CHRIS: Just a moment, I'll look at the planner ... here it is, um, ... , the last course is in July - that's the Supervisors' course - if all goes well that'll finish at the end of the month and they'll be ready to start work at the beginning of August. JIM: So you plan to start up in August?
CHRIS: Yes, if all the tests are OK, we've got a provisional start-up date on 25th August ... for the first two weeks we'll be building up capacity slowly ... hope to reach full capacity by September 8th.
JIM: Right, that's the other thing I wanted to mention. The client wants an official opening date for the plant - when do you suggest?
CHRIS: Well I've been talking to some of the Saudis here - in fact I talked to the Works Manager a couple of days ago - he reckoned the middle of September would be fine. Let me just look at my diary ... shall we say September 15th? JIM: Sounds fine. Anything you need?
CHRIS: Um. I don't think so. Oh yes. Could you send some more copies of the Operators' Manual. Let's say about 20.
JIM: Of course. I'll send them off today. If I get them off airmail they should be with you by Monday. CHRIS: Right thanks Jim.
JIM: You're welcome. Speak to you again soon. CHRIS: Yes, Bye. JIM: Bye.

*... and **complete the key** for the **'Planner'** below:*



Key:


a. _____


b. _____

* f. _____

□ g. _____

○ h. _____

Training Courses


c. operator training


d. maintenance course


e. supervisors' course

Lösung von Text 1:

☐	equipment installation
☐	equipment testing
*	provisional start- up
□	full capacity
○	official opening

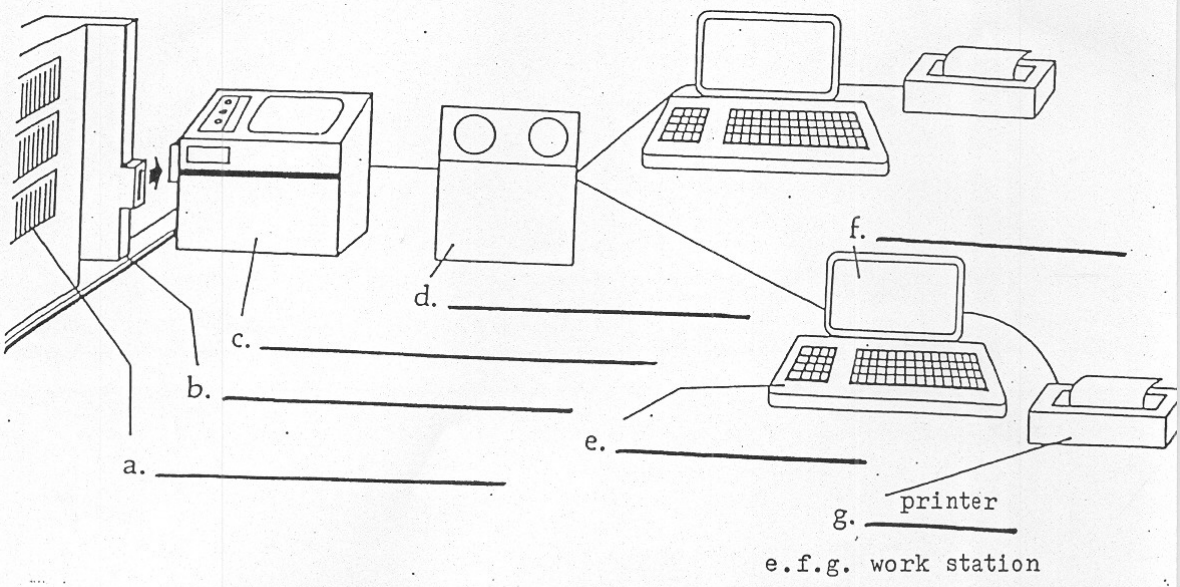
5.2 Text 2) Mikrofilm

A: Well, if I can have your attention for a moment. At the moment we've got all our records on microfilm. When one of our clerks wants to look at a document, he goes down into the microfilm library, inserts the microfilm index into the microfilm reader, selects the relevant microfilm, searches in the reader for the document and then, if he wants, he can take a thermal copy of the document. I'm sure you'll all agree that the process is slow and inefficient.

So what we want to do is update the system. First of all, we're going to install work stations in all the main offices.

B: What will a work station look like?
A: You can see on this diagram here, a work station will consist of a terminal with its own keyboard and then a connection to a high-quality printer. The operator will call up the index on his terminal. The index will now be on disk in a central computer. This central computer will be connected to a central microfilm reader. The reader will be down in the microfilm library. Now the new thing here will be a microfilm autoloader. This will select the right microfilm from the library and then insert the film into the reader. The image will be electronically scanned and then transmitted via the central computer to the work station. The operator will view the document on his terminal screen and then, if he wants, take a top-quality hard copy from the printer.
B: What's the time schedule on this?
A: Well, as I said, we're going to install the work stations in the first phase. We plan to do this by the end of the year.
B: What about the autoloader?
A: Well, at the moment we're doing a trial. If all goes well, we plan to install it at the beginning of next year. The central computer is already on site. We're working on some new software which should be ready soon.
B: So what about the whole system?
A: We expect the whole system to come on line in spring next year.
B: I see. Can you tell us some more about ...

... and ***label the system diagram*** *below:*
(The new information retrieval system is based on microfilm)



Lösung von Text 2:

a) microfilm library

b) microfilm autoloader

c) microfilm reader

d) central computer

e) keyboard

f) terminal screen

5.3 Text 3) Elektrische Energie

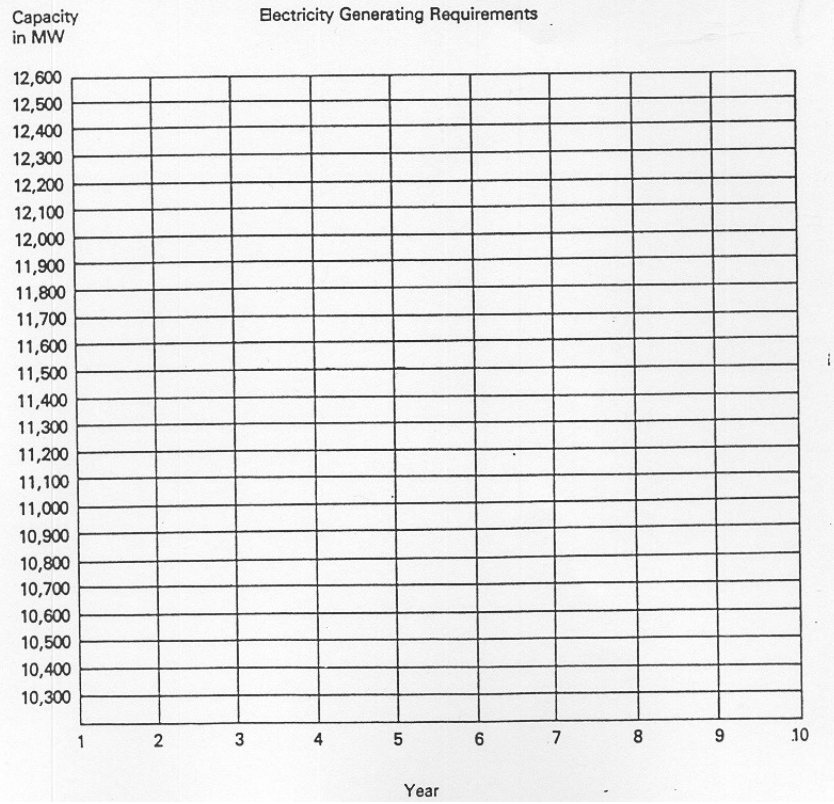
The picture of electricity generation in our region is not particularly rosy. If we look at the statistics over the last 10 years we can see an increase during the first 6 years of the period; and then a steady decrease over the last 4 years. However, let's look at the figures in more detail.

In year 1, when the new region was established, capacity stood at 10,900 megawatts (MW). This was to provide electricity for domestic and industrial users. This figure increased in the 2nd year by 300 MW, giving us a capacity of 11,200 MW.

This represented a moderate rise in line with national trends. However, in the 3rd year we did not manage to increase capacity, and it remained constant at 11,200 MW. This was as a result of the increase in electricity tariffs for consumers. In response to this price increase, local industry introduced measures to conserve energy. The 4th year saw an improvement, with a rise of 800 MW for the region. This was, in fact, quite a substantial increase, and was mainly caused by a number of new domestic users. We looked forward to a continued rising trend. The trend did continue, but in year 5 capacity only went up by 200 MW to 12,200 MW. Again the price rises led to a policy of energy conservation. And with the high rate of inflation that year, many users took steps to reduce their electricity consumption. The following year, year 6, we reached our peak, and capacity rose to 12,400 MW. This was our high point. It was a very good year for the region's economy generally. However, since year 6 we've registered a steady decrease in our capacity for the region.

In year 7 we saw a drop to 12,000 MW - which, in fact, represented a fall to the level of year 4. You will, no doubt, remember that that was the year in which our local industry began to suffer from the recession. Now, this downward trend continued in year 8 - but at a much more dramatic rate. Many factories closed down and the general economic climate was most unhealthy. And our capacity went down by 1,000 MW in that year. This was our worst year ... our biggest single drop. In the following year - year 9 - we managed to keep capacity at almost the same level, but we saw a small decrease of 200 MW in capacity. Despite our local problems, many people were beginning to realise that there was no short-term solution to the situation. And they began to spend more money generally ... but, unfortunately, not on energy. Now, that almost brings us up to date with the 10-year review. Our final figure for the period indicates that the general decrease is still continuing; and with a further drop in capacity to 10,300 MW for this year, I expect this downward trend to continue for at least another 2 years.

*... and **draw a graph** to show the **trends** of **electricity generation**:*



Lösung von Text 3:

Jahr	*Kapazität*
1	10,9
2	11,2
3	11,2
4	12
5	12,2
6	12,4
7	12
8	11
9	10,8
10	10,3

5.4 Text 4) Bohrer

The ZX 1000 electric drill has two speeds: the fast speed is 3,000 rpm and the slower speed is 1,000 rpm. Adjust the speed according to the type of material and the size of the hole. For example, use the faster speed for a soft material such as wood to drill holes smaller than 10 millimetres (10 mm) in diameter but choose the slower speed for holes between 10 and 25 mm. However, for steel, a hard material, use the faster speed for holes smaller than 6·5 mm and choose the slower speed to drill holes between 6·5 and 10 mm.

*... and **fill in** the **type of material**, the **missing diameters** and **speeds**:*

Speed	Material	Diameter
1,000 rev/min		
		10 mm - 25 mm
		< 6·5 mm
3,000 rev/min		

< = smaller than
> = greater than

Lösung von Text 4:

Speed	Material	Diameter

1000 rev/min	steel	6,5 mm – 10 mm
1000 rev/ min	wood	10mm – 25mm
3000 rev/min	steel	< 6,5 mm
3000 rev/min	wood	< 10 mm

6 Ing - Formen und Präpositionen

6.1 Ing – Formen

Signalwörter auf die die Grundform **to** folgt

usually
decide
fail
forget
hope
learn
manage
offer
pretend
promise
refuse
seem
want
wish

Signalwörter auf die die **ing Form** folgt

Die ing Form ist die Verlaufsform, es geschieht oder geschah gerade.
Nach einer Präposition steht ein Verb immer in der ing- Form!!!!

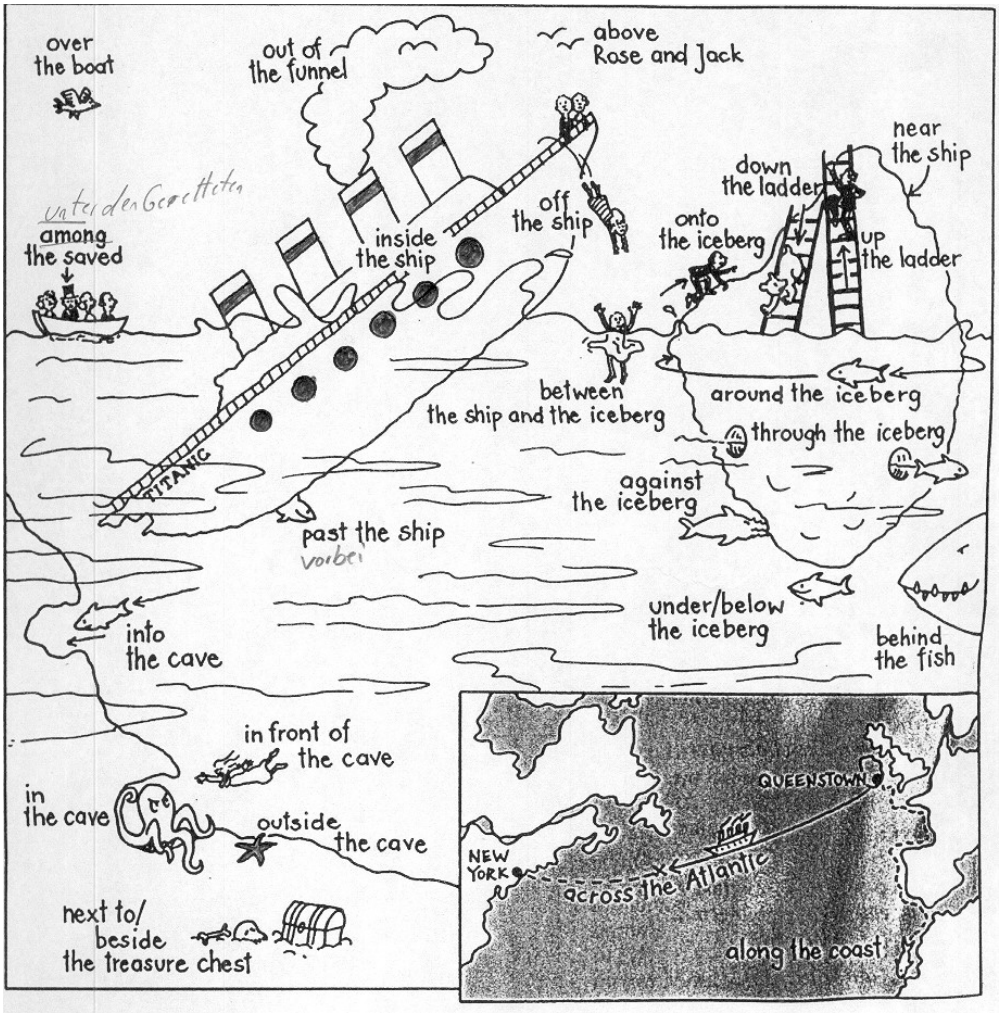
admit
avoid
dislike
enjoy
escape
excuse
finish
mind
miss
risk
stop
go on
keep on
spend time on

delay
practise

He finished (correct) ..... the mistakes in his report.	*correcting*
She missed (inform) ..... her colleagues about the meeting.	*informing*
The employees enjoyed (use) ……..... the new printer.	*using*
We avoided (meet) ……. them in the chief engineer's office.	*meeting*

6.2 Präpositionen

Wenn etwas drauf liegt:	*on*
Wenn etwas irgendwo drin ist:	*in*
In etwas hinein bedeutet:	*into*
Wenn etwas darauf fällt:	*onto*
Wenn man nicht hier ist sondern wo anders.	*at*
Will man eine Richtung ausdrücken:	*to*
Bei Fahrzeugen kommt immer:	*by*



We specialize in business aids aimed ……. their needs.	*at*
They went mad ……. joy when their team won the match.	*with*
The project leader was ……. the passengers.	*among*
While my car was …… repaired I went by bus.	*on*
On hearing this, she went pale …….. anger.	*with*
Nobody suspected the man …… being a swindler.	*of*
He is far …….. understanding this problem.	*form*
The ATP system relies …… track circuits.	*on*
She was engaged …….. writing the report.	*in*
They are launching a scheme aimed …… helping disabled persons.	*at*
I am tired ……. saying it again and again.	*of*
And what is Fred interested ……..?	*in*
The exterior walls are covered ……. a four-coat paint finish.	*with*
With these units, we can set up programmes ……. automatic milling.	*for*
Mr and Mrs Franklin have enough to live……. .	*on*
We deal ….. our passengers hotel bookings and fix reservations for them.	*with*
We are now flying ….. an altitude of 30000 feet.	*at*
We specialize in business aids aimed ….. the needs of small businesses.	*at*
The machine runs ….. AC.	*on*
A number of airlines have placed firm orders …. the TriStar aircraft.	*for*
The Concorde was developed …. fantastic cost.	*at*
….. the whole, salaries in advertising are somewhat above the national average.	*On*
We would appreciate an opinion ….. their financial standing.	*on*
Reservations should be made ….. an early date.	*at*
They will all participate …… the campaign.	*in*
He is a plumber …… trade.	*by*
A senior engineer is …… an engineer.	*above*
Have a look at the definition ….. the top of page 113.	*at*
He found a solution ….. this problem.	*to*
We bought the spare part …… half the price.	*at*
While my car was ….. repair I went by bus.	*under*
The assistant is standing ….. the counter.	*behind*
There are no tolls, except …… a few bridges and tunnels.	*for*

When the owner of the company died he left nothing but debts …. him.	*behind*
…… coal, iron ore is found in the Midlands.	*Besides*
It is very cold today, it must be a few degrees ….. zero.	*below*
You can lift heavy loads …. means of big cranes.	*by*
The new employee was blamed …..... his laziness.	*for*
He worked ….. his usual hours.	*beyond*
She is a commuter, …… this reason she bought a new car recently.	*for*
….. my opinion she is an excellent manager.	*In*
Looking out of the plane he saw London lying ….	*below*
….. an average it takes me an hour to solve that problem.	*On*
You'll meet German products all …… the world.	*over*
The resistance …… motion of two moving objects or surfaces that touch is called friction.	*to*

7 Auswählen und anpassen

A) (bring, choose, grow, read)

1. The thermometer ……..twenty degrees today.
2. Have you ……the spare part along?
3. Last time he ……. the slower speed to drill holes.
4. We hope that a ……. number of people will reduce energy consumption.

Lösung: { reads, brought, chose, growing}

B) (break, expand, read, think)

1. The …… liquid in the bulb will shatter the glass.
2. She …… . She could write down the formula.
3. Silence, please! The sentence …… as follows.
4. My watch is …….. I'll have to by another one.

Lösung: { expanding, thought, reads, broken}

C) (break, expand, read, think)

1. Arabic …….from right to left.
2. The …….. Liquid in the bulb will shatter the glass.
3. She …….. she could write down the formula.
4. My watch is ……. I'll have to buy another one.

Lösung: { read, expanding, thought, broken}

8 Frageanhängsel “question tag’s”

Hilfsverben werden im Frageanhängsel wiederholt. Wenn kein Hilfsverb (Vollverb) vorhanden ist, steht eine Form von do. Die Zeit, bleibt im Frageanhängsel erhalten. Die Person wird übernommen, und das Verb wird gebeugt.

Grundregel: bejahter Satz := verneintes Frageanhängsel

verneinter Satz := bejahtes Frageanhängsel

Achtung Ausnahme: *Let’s .... folgt immer , shall we?*

He wants to buy a second-hand car,	*doesn’t he?*
She will talk to the managing director,	*won’t she?*
Let’s have a look at the new engine,	*shall we?*
He offered a one-year guarantee,	*didn’t he?*
They had to install a pneumatic tube system,	*didn’t they?*
She’s got a pleasant little shop,	*hasn’t she?*
He read about the event in a newspaper a week ago,	*didn’t he?*
They had a look at the broken shaft,	*didn’t they?*
Let’s have a look at the broken shaft,	*shall we?*
She has got a new printer,	*hasn’t she?*
He wants a camera with automatic features,	*doesn’t he?*
They’ll show us the assembly line next week,	*won’t they?*
You offer a one-year guarantee,	*don’t you?*
She hasn’t bought a secondhand car,	*has she?*
The engineers weren’t in the factory,	*were they?*
You don’t want to buy a reflex camera,	*do you?*
The Franklins have got a pleasant little shop,	*haven’t they?*
Mr Baldwin is interested in the automatic milling machine,	*isn’t he?*
He can use that plug for his tape recorder,	*can’t he?*
They could send me a leaflet,	*couldn’t they?*
He operates a drilling machine,	*doesn’t he?*

9 Wörter erklären

Amplifier
A device used to increase the level and the power of an electrical signal.

Chip
A small slice of silicon (semiconductor) containing complex electronic circuits.

Circuit:
E.g. a closed circuit, which consists of voltage supply, conductors and resistors, in which electric current can flow.

Current:
The flow of electric charge in a conductor between two points having a difference in potential.

Filament:
The fine metal wire in a light bulb which becomes red-hot when heated by an electric current.

Modem:
A device attached to a computer and the telephone line allowing access to the internet.
It converts the anologue telephone signal to digital signal used by computers and vice versa.

Microelectronics:
It is the branch of the semiconductor-electronics. It deals with the design, development and the application of integrated circuits. These circuits are extremely small.

Network
A system of computers interconnected so that information and resources can be shared by a large number of users.

Plug and socket
A device that enables electrical apparatus to be connected or disconnected from a source of power supply consisting of a male and a female part.

Capacitor:
A device consisting of two or more conducting plates separated from one another by an insulating material and used for storing an electric charge.

conductor:
A material that offers a low resistance to the passage of electric current.

coil:
A component made of copper in a spiral shape. It is used to convert electrical energy to electromagnetic energy.

Disk drive:
A peripheral of a computer. It is used to store data on a floppy disk.

engine:
A machine which converts heat energy during a combustion process into mechanical energy.

Floppy disk:
A storage medium made of plastic in a flat shape. You can store binary data on it.

fuse:
It's responsible for stopping the electric circuit, when the flow of electricity is too powerful.

generator:
A generator transforms mechanical energy into electrical energy.

Headphone:
A device which converts electrical signals into audible signals. Only the user hears the signals because the device is attached on his head.

light bulb:
A device made of glass and metal in a spherical shape. It lights up if it is supplied with electric tension.

Loudspeaker:
A device which converts electrical signals into audible signals.

radiator:
A radiator is a thing, who warms up a room. It emits warmth. It goes with oil or electrical energy.

resistor:
A component, that offers a high resistance to the flow of electric current.

switch:
A device which allows to break or close an electric circuit.

Transistor:
A component, that is used in electronic circuits. There it is used as switch. It is made of silicon. This component has three connector pins.

Memory unit
A storage device that stores digital signals until they are required for further processing. In a terminal, the memory unit is used to store data passing to or from the communications line.

Ball bearing (Kugellager):
A bearing permitting free motion between moving and fixed parts by means of little balls confined ("eingesperrt") between outer and inner rings, used to reduce friction.

Bearing (Lager):
A machine part that supports another part which rotates in or on it.

chuck:
It is at the front of the hand drill. It holds the drill.

clutch:
A machine element for the connection and disconnection of shafts in equipment drives, especially while running.

cogwheel:
Because of it's tooth-like parts around it's limit, the cogwheel makes it possible to move another circular object or part in a machine.

deflector:
It is a curved metal plate. It is used to alter the direction of a stream which passes it.

flange:
A rim or collar on a wheel, pipe, etc. to hold it in place, give it strength, guide it.

friction:
The resistance to motion of two moving objects or surfaces that touch.

gasket:
It is a ring of rubber, paper, etc. placed at a joint to make it leak proof.

jet propulsion:
It is used by the turbines of the airplane. It is a kind of system to produce energy.

Lens:
A part of a camera made of glass. It is used to bundle the light and to guide it into the interior of the camera.

lever:
A bar used to multiply force or motion, used for raising or dislodging an object.

nozzle:
A tubelike device, usually streamlined, for a accelerating and directing a fluid, whose pressure decreases as it leaves the nozzle.

Retail:
The sale of goods in small quantities directly to the consumer.

screw:
A component usually made of metal in spiral shape. It is used to join two components.

shaft:
A component made of metal in a cylindrical shape. It is used to transmit mechanical energy from an engine to a transmission.

spanner:
A fixes tool with a semicircular head having a hexagonal hole at one end.

thread:
The raised helical rib going around a screw.

tube:
A device made of metal in a cylindrical shape. It is used to transmit a medium.

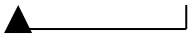
Wholesale (Großhandel):
The selling of goods in relatively large quantities and usually at lower prices than at retail, especially to retailers.

Wrench (Schraubenschlussel, verstellbar):
An adjustable tool used for holding and turning nuts (Muttern), bolts, pipes, etc.
A manual tool with adjustable jaws (Klemmbacken) at one end /
at both ends of a lever (Hebel, Stange) for holding or turning a bolt, pipe, etc.

10 Adjektiv oder Adverb

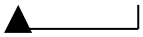
Adjektive werden verwende, um Eigenschaften oder Merkmale einer Person oder Sache zu beschreiben.
Wie ist das Ding ?

1. The machine is automatic.

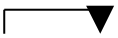


Adverbien, beziehen sich auf ein beschreibendes Verb, sie drücken aus, wie etwas passiert.
Wie Verb das Ding ?

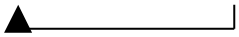
2. The machine runs automatically.



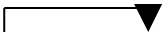
Adverbien können sich auch auf Adjektive beziehen.



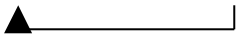
3. The machine is fully automatic.



Adverbien können sich auf ein anderes Adverb beziehen.



4.The machine runs fully automatically.



Bildung des Adverbs

Grundregel:	**Adjektiv + ly**		
Rechtschreibausnahmen:	**… y**	**:=**	**-ily**
	….ble	**:=**	**bl-y**
	….tic	**:=**	**tic – ally**
	…. al	**:=**	**al – ly**

Ausnahmen:

friendly	in a friendly way
good	well
fast	fast
hard	hard
late	/
large	/

Kein Adverb bei:

Zuständen (to be)

lazy, cleaver, hot, u.s.w.

Eigenen Sinnen

sound, tast, feels, looks, smells

The new lift truck is (hydraulic) …….. operated.
hydraulically

He looked at them (angry)…….. .
angrily

In Great Britain a lot of houses look (different)…….. .
different

The expert will give you details of your (current) …….. financial situation.
current

The measuring instruments are (hopeless) (bad)…… .
hopelessly bad

The new engineer has done his task (surprising) (good)……. .
surprisingly well

You can (easy) …… see that the cost of shipping by air is higher.
easily

He will acknowledge that the difference is (complete) …… compensated by the fact that air shipment is much faster.
completely

Other advantages are less obvious but (equal) (important)…… .
equally important

But above all, modern air cargo makes it (possible)……. .
possible

… to penetrate overseas markets (profitable) …… .
profitably

… because you can respond to changing conditions as (quick) ……
as a local manufacturer.
quickly

Life on an offshore oil drilling platform used to be (uncomfortably) …… and (danger) …. .
uncomfortable , dangerous

But in recent years these conditions have improved (substantial) …….. .
substantially

For oil rig employees (reliability) …… information about conditions affect their work and the weather is needed (quick) …… .
reliable , quickly

Of course much information can now be provided (efficiency) ….. and (precision) …..
by the advanced instruments currently in use.
efficiently , processional

So, although the (safe) …… of the workers cannot be guaranteed and accidents (occasion) …. happen, working and living conditions are (usual) …… quite (acceptably) …….. .
safety, occasionally , usually , acceptable

If a serious accident occurs, it is (essentially) …… to evacuate the rig as (quick) …… as (possibility) …….. .
essential , quickly , possible

As for living conditions, it is now (normally) …… practice to accommodate the rig.
normal

Worker in reasonable (comfortably) ….. , although studies show that noise levels from equipment can sometime be quite (height) ….. .
comfortable, high

However, these disadvantages are offset by the fact that this equipment helps the workers to carry out their jobs with (efficient) ……. and (precise) ……. .
efficiently , precision

And at the end of their working shift they are transported (quick) …… to the mainland for leave.
quickly

I'm (particular) ….. interested in this model.
particularly

I'm interested in this (particular)…… model.
particular

It's (easy)…… to use.
easy

It slips into your briefcase (easy)……. .
easily

It adds, subtracts, multiplies, and divides (electronic)…… .
electronically

It calculates at (electronic) …… speed.
electronic

It's (beautiful) …… designed.
beautifully

It certainly looks (beautiful)….. .
beautiful

We are offering the machine at (sensational) ….. price.
sensational

The machine is really (sensational) …… cheap.
sensationally

The machine is guaranteed (full) …… for 12 months.
fully

It carries a (full) …… 12 month's guarantee.
full

11 Einzahl, Mehrzahl

The children washed their (Gesicht)……. .	*faces*
The (Arbeiten) …… (is/are) …… still going on.	*work , is*
A Thousand (Pfund) …. (is/are) …... a good price for this car.	*pounds , is*
The (Ware) …..(has/have) … already been sold.	*goods, have*
(Diese Möbel) …..(is/are) … very expensive.	*This furniture, is*
The 19th and 20th (Jahrhundert) …..	*centuries*
The contents of this safe-deposit box …… not insured.	*is*
Four miles …….. too far to walk tonight.	*is*
In a way, the United Nations…….. a mirror of the world we live in.	*are*
Some of our staff…….. with us for over twenty years.	*are*
The cattle ……. hungry and thirsty.	*are*
Cambridge…… won the Boat Race more often than Oxford.	*have*

police, staff, cattle, cambridge are	*(als einzel Personen)*
four miles, thousand pounds is	*(Betrachtung als ganzes)*

12 Britisch Amerikanische Unterschiede

12.1 Wörter (aktuell)

BE	AE	D
playschool	kindergarten	Kindergarten
primary school	elementary school	Grundschule
class / form	grade	Klasse
first – year undergraduate	freshman	Erstsemester
second – year undergraduate	sophomore	Zweitsemester
third – year undergraduate	junior	Drittsemester
fourth-year undergraduate	senior	Viertsemester
job centre	labor office	Arbeitsamt
postman	mailman	Postbote
postal code	Zip code	Postleitzahl
poste restante	general delivery	Postlager
petrol	gas (oline)	Benzin
puncture	flat	Platten
boot	trunk	Kofferraum
AA	AAA	ADAC
bonnet	hood	Motorhaube
mudguard / wing	fender	Kotflügel
silencer	muffler	Auspufftopf
sump	oil pan	Ölwanne
saloon car	sedan	Limousine
estate car	station car	Kombi
caravan	trailer / mobile home	Wohnwagen
lorry	truck	LKW
number plate	license plate	Nummerschild
sledge / toboggan	sled	Schlitten
return ticket	round trip ticket	Rückreise Fahrkarte
pavement	sidewalk	Bürgersteig
flat	apartment	Wohnung
ground floor	first floor	Erdgeschoss

lift	elevator	Aufzug
caretaker	janitor	Hausmeister
estate agent	realtor	Grundstücksmakler
blind	shade	Jalousie
tap	faucet	Wasserbahn
cupboard	closet	Wandschrank
sofa	davenport	Sofa
dinner jacket	tuxedo	Smoking
bowler hat	derby	Melone
label	tag	Schildchen
fortnight	two weeks	14 Tage
queue	line	Schlange
film	movie	Film
cinema	movie theater	Kino
flex	cord	Kabel
earth	ground	geerdet
anode	plate	Anode
accumulator	storage battery	Akku
valve	tube	Leuchtröhre
valve holder	tube socket	Röhrenfassung
screening	shielding	Abschirmung
aerial	antenna	Antenne

(weitere)

banknote	*bill*	*Geldschein*
barrister	*lawyer / attorney*	*Rechtsanwalt*
bill	*check*	*Rechnung*
block of flats	*apartment house*	*Wohngebäude*
chemist	*drugstore*	*Apotheke*
chips	*French fries*	*Pommes*
crisps	*potato chips*	*Chips*
deviation	*error signal*	*Abweichung*
draughts	*checker*	*Dame Spiel*
dual carriageway	*divided highway*	*zweispurig…*

dustbin	*garbage cam / trash cam*	*Mülleimer*
dust-cart	*garbage truck*	*Müllauto*
echo	*pip*	
gear lever	*gear shift*	*Schalthebel*
headmaster/ headmistress	*principal*	*Direktor*
hooter	*horn*	*Hupe*
hyphen	*dash*	*Bindestrich*
ironmonger	*hardware store*	*Eisenwarengeschäft*
mince	*hamburger meat*	*Hackfleisch*
motorway	*freeway, interstate*	*Autobahn*
National Insurance	*Social Security*	*Sozialversicherung*
pupil	*student*	*Student*
refuse collection	*garbage collection*	*Müllabfuhr*
railway	*railroad*	
refuse recycling	*garbage recycling*	
reversing lights	*back – up – lights*	*Rückfahrschein.*
shop assistant	*sales clerk*	
skirting-board	*baseboard*	*Fußleiste*
sleeper	*tie*	*Eisenbahnschwelle*
tip	*dump*	*entleeren*
torch	*flash light*	*Taschenlampe*
tram	*streetcar*	*Straßenbahn*
trunk road	*highway*	*Bundesstraße*
two storey	*duplex*	*doppelt*
underground (tube)	*subway*	*U – Bahn*
vest	*undershirt*	*Unterhemd*
windscreen	*windshield*	*Windschutzscheibe*
waistcoat	*vest*	*Weste*

12.2 Schreibung (aktuell)

theater	theatre
liter	litre
center	centre
color	colour
honor	honour
neighbor	neighbour
favor	favour
defense	defence
license	licence
offense	offence
vise	vice
analog	analogue
catalog	catalogue
dialog	dialogue
program	programme
airplane	aeroplane
gage	gauge
sulfur	sulphur
encyclopedia	encyclopaedia
check	cheque
mustache	moustache
maneuver	manoeuvre
curb	kerb
plow	plough
traveler	traveller
ax	axe
gray	grey

(weitere)

aluminum	aluminium
apologize	apologise
carburetor	carburettor
realize	realise
woolen	woollen

13 Landeskunde

13.1 Work and Money

1.1.1.1 The Structure of the Economy

In every country the first resource is land, and densely-populated Britain has not much of it. About 2 per cent of the population work on farms, many of them tenants of big estates. After 1945 governments encouraged them, by advice and. financial inducements, to use their land effectively, and when Britain joined the European Community in 1972 most farms were well equipped and mechanised.
Now their efficiency is embarrassing. Environmentalists complain that insecticides and fertilisers have polluted air and water. Vast lengths of hedges have been cut down, to the detriment of wild flowers and butterflies. Intensive methods of producing eggs and some kinds of meat are criticised; few pigs are to be seen wandering free. And too much food is being produced.
Although each year much good farmland is sold for building, farmers are encouraged to put some land to other uses, such as facilities for recreation. Hills once grazed by sheep are being used for forestry, encouraged by government grants - though there has been bitter complaint about the damage to the scenery and to the whole ecology caused by new coniferous forests.
But agriculture is a small part of the whole economy. For 200 years manufacturing has been more important, but by the 1970s it was clear that Britain's old manufacturing industries were less progressive than the same industries in other Western European countries. Newer industries, such as car manufacture, were no better than the older ones like textiles. Half the new cars on British roads were imported, mainly from France, West Germany and Italy, where few British cars were bought. In general the value of goods produced by a hundred workers had for many years increased much less than in West Germany. In some factories there was not enough new equipment; in others, new equipment was not being used efficiently. Some managers complained that when they brought in new equipment they had to spend more time negotiating with trade unions about changes in working processes than in running their businesses. Even so, strikes were frequent.
After 1979, when Mrs Thatcher's government came to power, there was less action by the state to help inefficient industries to survive, or to prevent the growth of unemployment. Within a few years hundreds of factories were demolished or taken over for new purposes. Some sections of the old industries improved their productivity and became more profitable than before, but some were less successful.
In 1979 many of the old industries were owned by the state. Their managing boards were told to aim at profit, and to prepare for being sold off to the private sector. Many steel plants were closed, and in a few years those which survived were no longer needing subsidies. Coal production was concentrated in the most efficient pits, including a few new ones. In 1989 most electric power was still generated in coal-fired power stations, but the government was sympathetic to plans to increase nuclear power.
No industry has suffered so great a change as shipbuilding, in which Britain led the world for 200 years or more. As recently as the 1920s British shipyards built half of the world's tonnage of new passenger and cargo ships. Nationalisation in 1976 failed to stop the industry's decline. Three years later its share of the world's output of new merchant ships was down to 5 per cent. In the 1980s it declined still further, to below 2 per cent, though the few surviving

shipyards still had some work for various navies and the undersea oil industry. But the experience of shipbuilding was not typical many other industries became more competitive in the 1980s.

New 'high-tech' industries developed, and there was a new diversity, with some growth of small-scale enterprise. While the number of people employed in manufacturing fell by a quarter in 1979-84, then by a little more in the next five years, manufacturing output rose substantially and many companies' profits doubled in the five years to 1989.

Two parallel developments have affected Britain slightly more than most other European countries. One is the increase in the service industries, as distinct from the productive ones. The other is the increase in the proportion of people in white collar as distinct from manual jobs. .

More than half of all working people, whether employees or self-employed, are now providing services. Although some service work is manual, less than half of all working people are in jobs traditionally associated with the working class.

There has been some growth in the number of people who work for schools and hospitals, social services, the police and prisons, and in public administration. But the biggest growth has been in finance, banking and insurance, along with 'other services', including the law, advertising, catering and entertainment. These growing categories now employ together four million people, including many of the earners of the biggest incomes.

Another recent change has been in the growth of self-employment. During the 1980s the number of people working for themselves, and not as employees, rose by half, from two million to almost three million, or more than one-tenth of the whole working population. This development was encouraged by the government, through training courses, tax incentives and an 'enterprise allowance scheme' under which people who have been unemployed may receive an allowance of £40 a week for the first year of running their own business.

1.1.2.1Unemployment

The growth of the service and new manufacturing industries was not enough to prevent a high level of unemployment in the 1980s. After more than twenty years in which the unemployment rate was between 1 and 2 per cent, there was a big increase after 1974, to 6 per cent when Mrs Thatcher became Prime Minister in 1979. The rate then doubled in the next five years, and was around 12 per cent in 1984-86. It then fell slowly, to 6 per cent in 1990, though it then began to rise again. At most times about a third of the people registered as unemployed have been without jobs for a year or more; and at least a quarter of those currently working have recently been unemployed at some time. Most people have less job security than in the past.

There have always been big differences in the rates of unemployment in the various regions of the country. The areas with the highest unemploy-ment are those which have been most dependent on the older manufactur-ing industries. But there are big differences within the regions too, with, for example, an unemployment rate five times greater in central parts of London and Manchester than in their more prosperous outer suburbs. But the recession which began in 1990 brought a change. Although the South-east's population, for the first time, had decreased, unemployment grew more quickly there than in the North.

All through this period of high unemployment the British addiction to overtime working has survived. The standard working week in industry is thirty-nine hours, but so much overtime is worked, at extra pay, that the average actual working week for full-time employees is more than forty two hours, well above the European average.

Although there are now about eleven million women in the labour force (compared with seven million in the time of full employment in the 1950s), unemployment has consistently been at

a lower rate among women than among men. One probable explanation for this difference is that women work mainly in the growing service industries.

1.1.3.1Trade Unions

The Trades Union Congress is a single nationwide organisation with about eighty unions affiliated to it, and a total union membership of nine million (three million less than in 1979). Twenty of the unions have over 100,000 members each, but about fifty are very small.

Most unions are affiliated to the Labour Party, and hand over to the Party a small part of their members' subscriptions (though individual members may 'contract out' of the political levy). Only a few members take any interest in union affairs, or attend meetings, so power is in the hands of the enthusiasts. Each big union has a hierarchy of elected officers, central and local, and in many cases the union's national committee decides the main aspects of policy on behalf of the general membership. One of the main powers of these union bodies is to decide how to vote at the annual Labour Party conferences, not only on questions of party policy but also on the choice of the unions' members of the Party's National Executive Committee. More than a third of the Labour MPs are sponsored by one or another of eight big unions, and about a dozen other unions have one or more sponsored MPs to represent their interests in the House of Commons and the Parliamentary Labour Party.

Long before the 1980s the leaders of the biggest unions were commonly described, in medieval terms, as barons, great men of power without whose permission nothing new could be done. In 1973-74 Mr Heath's Conservative government tried to restrain inflation by setting limits to wage increases. The miners' union demanded more;, then went on strike, and Mr Heath tried to assert his authority by calling a general election at a time when lack of electric power was causing regular power cuts and a three-day working week. Labour won that election and ruled in close partnership with the unions. After five years the partnership broke down. A series of strikes produced a 'winter of discontent', and at the end of it the Conservatives won their big majority in the 1979 election.

In the decades before the 1980s, even when unemployment was below 2 per cent, some unions, fearing job losses, resisted managements' attempts to modernise productive processes or to make full and profitable use of
labour-saving equipment. At one time many of the strikes arose out of problems of demarcation between jobs or disputes between unions. A strike called by one union could stop a whole production line.

In the 1980s new laws set limits to union leaders' powers and privileges. Union officials must be elected for periods of no more than five years. New protection was given to workers not joining unions or expelled from them. Now, by law, strikes have to be approved by majorities of the workers affected, voting by secret ballot, and only six pickets can stand outside an entrance to a work place. The pickets must not be outsiders, and they must not behave in a threatening way.

Meanwhile, the new government policy left firms to compete for orders. Those who failed received no subsidy or protection. Some went out of business, some had to lay off workers. There was reason to fear unemployment. Most union leaders and shop stewards were soon accepting changes in work practices which they would have rejected a few years before.

During the 1980s the number of work days lost through strikes declined to a small proportion of the previous long-term average. Nearly all the big strikes of the past had ended with large concessions to the unions' demands. The few major strikes of the 1980s failed, though two of them were supported by mass-picketing which led to unprecedented clashes with the police who had been brought in to protect people still going to work. The miners' strike of 1984 failed to achieve its aim, to stop the closure of many uneconomic pits; and a section of the union, which opposed the strike, broke away to form a separate union. The newspaper printers' strike of

1986-87 failed because other unions collaborated with the management in bringing into operation a new process which did not need the printers. Later the Electrical, Electronic, Telecommunications and Plumbing Union, which had helped the management in this affair, was expelled from the TUC for its support for single-union agreements.

One feature of the past few decades has been the rise of white-collar unions, which now account for about a third of all unions, with a third of the total membership. Little more than a quarter of all working people are in manual jobs and union members, so the traditional unionised 'working class' is a minority of all workers. But the biggest 'white-collar' unions are associated particularly with public sector jobs. The late 1980s have produced cases of industrial action among hospital staffs and teachers, as well as postal and railway workers and prison officers. But workers in private sector industry have been more inclined to accept the needs of profitable business.

13.2 Vokabeln

aim	vorhaben
affiliate	aufnehmen, angliedern
advice	Rat, Volkswirtschaft
agriculture	Landwirtschaft
although	obwohl, obgleich
Community	Gemeinschaft
coniferous	zapfentragend
complain	Beklagen
densely	dicht
diversity	Vielfalt
decline	Rückgang
detriment	Nachteil, Schaden
embarrassing	Unangenehm, peinlich, sorgen
encouraged	ermutigen, fördern
Environmentalists	Umweltschützer
estates	Großes Grundstück
fertilisers	Dünger
general	allgemeinen
goods	Waen
grants	Unterstützung
improved	verbessern
incentives	Anreiz
inducements	Anreiz
insecticides	Insektizid
negotiating	verhandeln
joined	Sich anschließen
pit	Grube, Zeche

prevent	verhindern, vorbeugen
progressive	Fortschrittlich
recently	kürzlich
recreation	Freizeit
suffered	Leiden
scenery	Landschaft
tenant	Pächter
wage	Lohn
within	innerhalb
value	Wert
vast	gewaltig, riesig, weit

13.3 Arbeit und Geld

1.3.1.1 Die Struktur der Wirtschaft

In jedem Staat ist der wichtigste Rohstoff Land, und das *dicht* bevölkerte England hat nicht viel davon. Um die 2 % der Bevölkerung arbeitet auf Farmen, viele von ihnen sind Pächter der Grundstücke. Nach 1945 förderte die Regierung sie, mit Ratschlägen und Finanziellen Anreizen, damit sie ihr Land effektiver nutzen konnten. Als England der Europäischen Gemeinschaft 1972 beitrat, waren die meisten Farmen gut ausgerüstet und Automatisiert (Mechanisiert).
Heute ist ihre Effizienz peinlich. Umweltschützer beklagen das Insektizide und Dünger die Luft und das Wasser verschmutzt haben. Weite Strecken von Hecken wurden nieder geschnitten, zum Nachteil der wilden Blumen, und Schmetterlingen.
Intensive Methoden der Einer und Fleischproduktion werden kritisiert. Ein paar freilaufende Schweine wurden gesehen. Und zu viel Essen wird produziert.
Obwohl jedes Jahr viel gutes Farmland zu bebauen verkauft wird, sind die Farmer ermutigt einiges von dem Land für andere Zwecke zu nutzen, z.B. Freizeitanlagen. Hügel, welche einst von Schafen abgegrast wurden, werden heute für den Forstbetrieb verwendet, welcher wieder durch die Regierung gefördert wurde, obwohl eine große Beschwerde über die Zerstörung der Landschaft eingereicht wurde, welche durch die neuen Wälder (Tannen) verursacht wurden.
Aber die Landwirtschaft ist nur ein kleiner teil der Wirtschaft.
200 Jahren war die Industrie sehr wichtig, aber seit 1970 war klar, das Englands alte Herstellungsindustrie nicht so fortschrittlich waren, als die anderen westlichen Europäischen Länder. Neue Industrien, wie z.B. Autofabriken, waren nicht besser als die alten Textilfabriken. Die Hälfte der neuen Autos auf Britischen Straßen wurden importiert, hauptsächlich aus Frankreich, West Germany und Italien, wo auch einige (wenige) Britische Wagen verkauft wurden. Im allgemeinen ist der Wert von Gütern der durch 100 Arbeiter produziert wird viel weniger gestiegen, als in Westdeutschland.
In einigen Fabriken, gab es nicht genügend neue Ausrüstung, in anderen, wurde die Ausrüstung nicht effizient genutzt. Einige Manager beschwerten sich, dass wenn sie neue Ausrüstung kaufen würden, sie mehr zeit damit verbringen würden, mit den Gewerkschaften um die neuen Arbeitsprozesse zu verhandeln, als zu Arbeiten. Streiks waren nicht selten.
Nach 1979 als Frau Thatchers Regierung an die Macht kam, wurden keine Anstrengungen vom Staat her unternommen, um uneffiziente Industrien zu helfen, oder die wachsende Arbeitslosigkeit zu verhindern. Innerhalb weniger Jahre wurden hunderte Firmen zerstört oder für andere Zwecke übernommen. Einige Teile der alten Industrie verbesserten ihre Produktion und wurden profitabler als vorher, aber einige waren nicht so erfolgreich.
1979 gehörten viele alte Fabriken dem Staat. Ihrem Management wurde gesagt, auf erfolg zu Zielen und sich darauf vorzubereiten an den Privaten Sektor verkauft zu werden.
Viele Stahl Fabriken wurden geschlossen, und in wenigen Jahren mussten die, welche überlebten nicht mehr subventioniert werden. Die Kohle Produktion, wurde auf die effizientesten Gruben beschränkt, einschließlich ein paar neuer Zechen.
1989 wurde die meiste elektrische Energie in Kohle-Kraftwerken erzeugt, aber die Regierung liebäugelte mit der Erweiterung der Kernenergie. Keine Industrie litt unter so großen Veränderungen wie der Schiffsbau, indem England seit 200 Jahren führend war.
Noch kürzlich 1920 bauten Britische Schiffwerften die Hälfte aller Schiffe (Passagier oder Fracht) auf der Welt. Die Verstaatlichung 1976 verpasste es den Rückgang der Industrie zu stoppen. Drei Jahre Später war der Weltanteil der Produktion von neuen Handelsschiffen auf 5 % gesunken. 1980 sank er weiter bis unter 2 %, trotzdem hatten die überlebenden Werften

noch Arbeit, z.B. Kriegsflotten und Untersee-Ölindustrie. Aber die Erfahrungen im Schiffbau waren nicht typisch, die anderen Industrien bekamen mehr Kongruenz in den 80er.
Neue „high tech“ Industrien entwickelten sich, und es gab eine neue Vielfalt von wachsenden Kleinunternehmen.
Während die Anzahl an Fabrikarbeiter um ein viertel in den Jahren 79 – 84 sank, und ein wenig mehr noch in den nächsten 5 Jahren, stieg die Produktion der Industier beträchtlich und einige Betriebe verdoppelten ihren Gewinn in den 5 Jahren bis 89. Zwei parallele Entwicklungen haben England etwas mehr beeinflusst als die meisten anderen EU Länder.
Die erste Entwicklung ist der Anstieg des Dienstleistungsgewebes, als Unterschied zum Handwerk. Die andere ist der Anstieg der Leute mit weißem Kragen (Geschäftsleute) als ein Unterschied zu den Handwerkern.
Mehr als die hälfte der arbeiteten Leute, ob Angestellter oder Selbständiger, ist im Dienstleistungsgewerbe tätig. Obwohl einige Dienstleistungen handwerklicher Natur sind, sind weniger als die Hälfte aller arbeiteten Leute in traditionellen Berufen.
Es gab ein Wachstum in der Zahl von Beschäftigten in Öffentlichen Berufen (Schule, Krankenhäuser u.s.w.). Aber das größte Wachstum war im Finanzwesen, bei Banken und Versicherungen, unter anderem auch Werbung, und Entertainment. Diese wachsenden Kategorien beschäftigen heute insgesamt 4 Mil. Leute, inklusive der Verdiener der größten Einkommen. Eine andere kürzliche Veränderung war das Wachstum der selbstständigen. Während der 80er stieg die Zahl der selbstständigen um mehr als die Hälfte, von 2 Mil, auf fast 3 Mil, oder mehr als 1/10 der ganzen Arbeiterbevölkerung.
Diese Entwicklung ermutigte die Regierung, durch Steueranreize Unternehmen zu Fördern, Leute die Arbeitslos waren, erhalten im ersten Jahr 40 Pounds pro Woche für ihre Selbstständigkeit.

1.3.2.1Arbeitslosigkeit

Der Wachstum im Dienstleistungsbereich und in den neuen Industrien war nicht genug um einen hohen stand an arbeitslosen 1980 zu verhindern. Nach mehr als 20 Jahren in der die Arbeitslosenquote zwischen 1 und 2 Prozent lag, gab es nach 1974 einen Anstieg auf 6 Prozent als Mrs Thatcher 1979 Prime Minister wurde. Die Quote verdoppelte sich in den nächsten 5 Jahren auf 12 % in den Jahren 84 – 86. Sie sank langsam auf 6 % 1990 ab, dennoch stieg sie von erneutem. Die meiste Zeit über sind ein drittel der arbeitslos gemeldeten Leute schon 1 Jahr oder länger arbeitslos. Die wenigsten von ihnen wurden erst kürzlich arbeitslos. Die meisten Leute hatten früher einen sichereren Arbeitsplatz.
Die Arbeitslosenquote ist immer sehr stark regional gebunden. Die Regionen mit der höchsten Arbeitslosigkeit sind die, welche früher sehr stark von den alten Fabriken abhängig waren. Aber da sind auch große Unterschiede innerhalb der Regionen. Zum Beispiel, die Arbeitslosenquote ist in Zentral London und Manchester 5 mal höher, als in den Wirtschaftlich florierenden äußeren Vororten. Aber die Rezession welche 1990 begann bracht eine Wende. Obwohl die Süd –Ost Bevölkerung, zum ersten mal abnahm, stieg die Arbeitslosigkeit schneller als im Norden. Diese Periode überlebte die Sucht nach Überstunden. Die Standart Arbeitszeit beträgt 39h pro Woche (in der Industrie), aber es werden so viele bezahlte Überstunden gemacht das der Durchschnitt so bei 42h die Woche liegt, das ist höher als der Europäische Durchschnitt.
Obwohl heute 11 Mil. Frauen arbeiten gehen (1950 waren es nur 7 Mil.) ist die Arbeitslosenquote unter den Frauen geringer, als bei den Männern. Die wird darau

zurückgeführt, dass hautsächlich Frauen im Dienstleistungsgewerbe tätig sind, welches ja gewachsen ist.

1.3.3.1Gewerkschaften

Der Gewerkschaftsverband, ist eine einzelne nationale Organisation, mit etwa 80 Gewerkschaften, welche angegliedert sind und eine Gesamtmitgliederzahl von neun Millionen (drei Millionen weniger als 1979). Zwanzig von ihnen, haben über 100.000 Mitglieder, aber etwa 50 sind sehr klein. Die meiste sind angehängt an die Labour Partei und sie übergeben ihr, einen kleinen Teil ihrer Mitgliederbeiträge. Nur wenige Mitglieder haben ein Interesse an den Angelegenheiten, oder der Treffen der Gewerkschaften, deshalb liegt die Macht bei den Enthusiasten. Jede große Gewerkschaft hat eine Hierarchie von gewählten Offiziellen, Zentral und Lokal, und in den meisten Fällen entscheidet der Gewerkschaftsausschuss über die Richtlinien im Namen von allen Mitgliedern.
Eine der größten stärken der Gewerkschaftsmitglieder ist die Entscheidung, wie gewählt werden soll, nicht nur in Fragen der Parteipolitik aber auch die Auswahl der Gewerkschaftsmitglieder vom Nationalen Rat, welche in die Partei kommen.
Mehr als ein drittel der Unterhausabgeordneten sind gesponsert von einer oder einer anderen der 8 großen Gewerkschaften, und über ein Dutzend anderer Gewerk. sponsern einen oder mehrere Unterhausabgeordnete um ihre Interessen in dem Hous of Commons und der Parlamentarischen Labour Partei zu vertreten.
Lange vor den 80er, waren die Anführer der größten Gewerkschaften, im allgemeinen beschrieben durch mittelalterliche Titel, wie Baron, große Männer mit Macht, ohne dessen Erlaubnis nichts neues geschehen konnte. In der Zeit von 1973 – 74 als Mr. Heaths konservative Regierung versuchte die Inflation zurückzuhalten, durch setzen von Schranken welche die Arbeitslohnsteigerungen eindämmen sollten. Die Bergmanns Gewerkschaften forderten mehr, dann gingen sie in den Streik. Mr. Heath versuchte seine Autorität durchzusetzen mit der Berufung einer neuen Parlamentswahl, zur zeit, als fehlende Energie (Strom) regelmäßige Stromausfälle und eine 3 Tage Woche verursachte. Labour gewann die Wahl, und regelte alles in Partnerschaft mit den Gewerkschaften. Nach 5 Jahren zerbrach die Partnerschaft.
Eine Serie von Streiks lößte eine Welle der Unzufriedenheit aus, und am Ende gewannen die Konservativen die Wahlen von 1979 mit großer Mehrheit. In der Dekade vor 1980 als sogar die Arbeitslosenquote unter 2 % war, fürchteten einige Gewerkschaften um Arbeitsplätze. Zu dieser Zeit entstanden viele Streiks aus Probleme mit der Eingrenzung zwischen Arbeit oder Streit zwischen den Gewerkschaften. Ein Streik, welcher von einer Gewer. ausgerufen wurde, konnte eine ganze Produktionslinie stoppen.
In den 80er setzten neue Gesetze den Gewerkschaftsführern Grenzen, Rechte und Pflichten. Gewerkschaftsoffizielle konnten nur noch für 5 Jahre (Periode) gewählt werden. Neue Sicherheiten wurden vergeben, an Arbeiter, die keiner Gew. angehörten, oder von denen ausgeschlossen wurden. Heute durch das Gesetz, müssen Streiks durch die Mehrheit der betroffenen Arbeiter genehmigt werden, die Abstimmung ist geheim, und nur 6 Streikposten dürfen vor den Toren der Arbeitsstädten stehen. Die Streikposten dürfen keine Außenseiter sein, und sie dürfen sich nicht drohend verhalten.
Die neue Regierung gibt mehr Freiheiten den Firmen (freiere Marktwirtschaft). Unterdessen lies die neue Politik die Firmen im Kongurenzkampf alleine, diese scheiterten ohne die Subventionen und Sicherungen. Einige von ihnen machte pleite, andere mussten Arbeiter entlassen. Das führte zur Angst vor Arbeitslosigkeit. Die meisten Geschäftführer und

Gewerkschaftsführer, waren schnell bereit Veränderungen im Arbeitswesen zu akzeptieren, welche sie vorher nicht bereit waren.
Während den 80er war die Zahl der durch Streiks verlohrenen Arbeitstage im Durchschnitt geringer als in der vorherigen zeit. Fast alle großen Streiks in der Vergangenheit hatten mit Zugeständnissen der Forderungen der Gewerkschaften geendet. Es scheiterten 1980 ein paar Streiks, durch zwei von ihnen welche durch Groß Streiks verursacht wurden, führte es zu beispielslosen zusammen stöße mit der Polizei, welche die noch Arbeiteten Leute sicher zur Arbeit bringen wollten.
Der Bergbau Streik von 1984 scheiterte, bei der Durchsetzung die Schließungen von unwirtschaftlichen Zechen zu stoppen. Ein Teil der Gewe., welche gegen den Streik war, spaltetet sich ab, und wurde eine eigenständige Gewerkschaft. Der Zeitungsdrucker Streik von 86 – 87 scheiterte, weil andere Gewerkschaften mit dem Managment zusammenarbeiteten, wodurch die drucker nicht mehr gebracht wurden.
Später wurden die Gewerkschaften (Electronics,Telec. u.s.w.) aus dem Gewerkschaftsverband verbannt. In den letzten paar Dekaden stellte sich eine Steigerung der Angestellte Gewerkschaften ein. Heute sind gut ein drittel aller Gewerkschaftler Angestellte. Wenig mehr als ein viertel der Arbeitenden Leute sind im Handwerk und Gewerkschaftler, so das die traditionelle Gewerkschaftsarbeiterklasse nur noch eine Minderheit von aller Arbeitern stellt. Aber die größte Angestellten Gewerkschaften sind besonders im öffentlichen Sektor. Die späten 80er haben hervorgebracht, Fälle von Industrieller Betätigung zwischen Krankenhausbelegschaft, Lehrern, Postler. Aber die Arbeiter in der privaten Industrie haben sich der Notwendigkeit vom profitablen Geschäft gebeugt.

13.4 Fragen zum Text

The structure of Britain's economy:

Please name an important change during the 1980s which was even encouraged by the government through training courses, an 'enterprise allowance scheme' and tax incentives:

The important change was the increase of the self-employment.

Two parallel developments have affected Britain slightly more than most other European countries. Please insert:

1. One is the increase in the ***service industries*** , as distinct from the productive ones.
2. The other is the increase in the proportion of people in ***white collar*** as distinct from manual jobs.

Please describe the recent tendency of unemployment in Britain with regard to the North-South divide. Write a short sentence:

From the text:

Although the South population had decreased unemployment grew more quickly there than in the North.

From the lesson:

The reason was the moving to North because there was other taxation and cheaper Land.

13.5 Eckpunkte aus der Vorlesung

Economy Structure

agriculture
-small part
-work not effective
- new, effective hrough mechanized
overproduction

industry
- very important
- leading in Industrial revolution
- much strikes (1970) decreasing industry
- shipbuilding
  a) Empire
  b) decreasing in 60s
  c) shipyards were faild
  d) new expanding, buy rigs

service
- white collar jobs
- self employ
  a) tax incentives
  b) allowance
  c) training courses

Political

Lobour Party

for job security

nationalization

Conservation

privatization

Thatcher help the industry

Today

low job security
less unemployment
privatized industry

Unemployment

- north – south divide
- moving to North
  a) other taxation
  b) cheaper Land

Trade unions

connected to Labour party
get goals by using strikes
While Thatcher government very fast decreasing number of pickets.