

ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ, ΕΡΕΥΝΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ  
ΙΝΣΤΙΤΟΥΤΟ ΕΚΠΑΙΔΕΥΤΙΚΗΣ ΠΟΛΙΤΙΚΗΣ

# ΑΓΓΛΙΚΑ ΕΠΑΛ

ΤΟΜΕΑΣ ΔΟΜΙΚΩΝ ΕΡΓΩΝ,  
ΔΟΜΗΜΕΝΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ  
& ΑΡΧΙΤΕΚΤΟΝΙΚΟΥ ΣΧΕΔΙΑΣΜΟΥ



ΙΝΣΤΙΤΟΥΤΟ ΤΕΧΝΟΛΟΓΙΑΣ ΥΠΟΛΟΓΙΣΤΩΝ ΚΑΙ ΕΚΔΟΣΕΩΝ «ΔΙΟΦΑΝΤΟΣ»

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Δράση για την εκπόνηση Προγραμμάτων Σπουδών και συμπληρωματικού εκπαιδευτικού υλικού για το γνωστικό αντικείμενο των Αγγλικών Γενικού Λυκείου και ΕΠΑ.Λ. βάσει των υπ' αριθ. 10/01-03-2018 και 12/15-03-2018 Πράξης του Δ.Σ. του Ι.Ε.Π. (αρ. πρωτ. 3379/20-03-2018 και ΑΔΑ: ΩΖΞΕΟΞΛΔ-ΓΡΥ).

Το παρόν εκπονήθηκε αμισθί, με ευθύνη της Υπομονάδας Ξένων Γλωσσών του Ι.Ε.Π., στο πλαίσιο της ανωτέρω δράσης.

ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ, ΕΡΕΥΝΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ  
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## ΦΑΚΕΛΟΣ ΥΛΙΚΟΥ

# ΑΓΓΛΙΚΑ ΕΠΑΛ

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# Table of Contents

1	Protective Equipment	9
2	Public Works	25

Το εικονογραφικό υλικό του παρόντος φακέλου  
περιλαμβάνει εικόνες με δικαίωμα  
δωρεάν και ελεύθερης χρήσης  
από τους ιστότοπους  
<https://pixabay.com> και  
<https://commons.wikimedia.org>.  
Στις περιπτώσεις όπου έχουν χρησιμοποιηθεί  
εικόνες από άλλες πηγές  
γίνεται σχετική αναφορά.  
Ημερομηνία τελευταίας ανάκτησης  
όλων των κειμένων από το διαδίκτυο: 04.09.2018

## Εισαγωγικό σημείωμα

Το παρόν διδακτικό υλικό προτείνεται για τη διδασκαλία της αγγλικής γλώσσας στο ΕΠΑ.Λ., προκειμένου να προσφέρει στους μαθητές και τις μαθήτριες ευκαιρίες να αξιοποιήσουν τις ήδη υπάρχουσες γλωσσικές επικοινωνιακές τους ικανότητες και να εμπλακούν ενεργά σε δραστηριότητες που έχουν ως απώτερο στόχο την περαιτέρω γλωσσική, κοινωνική και ψυχοσυναισθηματική τους ανάπτυξη. Ειδικότερα, στοχεύει στην ανάπτυξη γλωσσικών δεξιοτήτων σε επικοινωνιακές περιστάσεις που αφορούν τον επαγγελματικό τομέα της επιλογής τους.

Το υλικό είναι χωρισμένο σε θεματικές ενότητες, σχετικές με τον τομέα Δομικών Έργων, Δομημένου Περιβάλλοντος & Αρχιτεκτονικού Σχεδιασμού. Κάθε ενότητα περιλαμβάνει δραστηριότητες κατανόησης και παραγωγής προφορικού και γραπτού λόγου στην ξένη γλώσσα, οι οποίες στοχεύουν στην καλλιέργεια των γλωσσικών επικοινωνιακών δεξιοτήτων τους μέσα από αυθεντικά κείμενα και αυθεντικές επικοινωνιακές περιστάσεις. Οι μαθητές και οι μαθήτριες καλούνται να διαβάσουν, να γράψουν, να συνομιλήσουν, να κατανοήσουν, να παρατηρήσουν, να αναζητήσουν, να παρουσιάσουν και να επεξεργαστούν πληροφορίες κριτικά και δημιουργικά, ατομικά ή και ομαδικά.

Μέσα από βιωματικές και ομαδο-συνεργατικές δραστηριότητες, οι μαθητές και μαθήτριες αναμένεται να κατακτήσουν προοδευτικά το λεξιλόγιο και την ορολογία του επαγγελματικού τομέα που έχουν επιλέξει, και κυρίως να καταστούν ικανοί/-ές να κατανοούν κείμενα αλλά και να παράγουν γραπτό και προφορικό λόγο σε σχέση με το αντικείμενο της ειδικότητάς τους.

Η χρήση αυθεντικών κειμένων αποτελεί αναμφίβολα ιδιαίτερα αποτελεσματική μέθοδο στη διδασκαλία της ξένης γλώσσας, και ιδιαίτερα στη διδασκαλία της για ειδικούς σκοπούς (ESP). Τα εν λόγω κείμενα δεν έχουν σε γενικές γραμμές υποστεί επεξεργασία για την προσαρμογή τους σε συγκεκριμένα επίπεδα γλωσσομάθειας, στοιχείο που αποτελεί το βασικό τους πλεονέκτημα καθώς ενισχύει το βαθμό της πρόκλησης αλλά και τα κίνητρα των μαθητών και μαθητριών για την κατανόησή τους. Επιπλέον, παρουσιάζουν επικοινωνιακές περιστάσεις στις οποίες πρόκειται να εκτεθούν μελλοντικά οι μαθητές και οι μαθήτριες προκειμένου να αναζητήσουν πληροφορίες σχετικές με τον επαγγελματικό τους τομέα.

Σκοπός της χρήσης τους στην τάξη επομένως **δεν είναι η προσαρμογή των κειμένων στο επίπεδο των μαθητών και μαθητριών**. Αντίθετα, κλειδί της επεξεργασίας τους αποτελεί η **προσαρμογή των δραστηριοτήτων** που τα συνοδεύουν ανάλογα με τις ικανότητες και τα ενδιαφέροντα των μαθητών και μαθητριών. Ενδεικτικά προτείνεται, **πριν** από την ανάγνωση του κειμένου, η χρήση κατάλληλα διαμορφωμένων ερωτήσεων, η παρουσίαση του λεξιλογίου που θα χρειαστούν για την κατανόησή του ή και συζήτηση σχετικά με το θέμα του κειμένου στη μητρική τους γλώσσα (pre-reading tasks) κ.λπ., έτσι ώστε να προετοιμαστούν οι μαθητές και οι μαθήτριες κατάλληλα και να μειωθεί ο βαθμός δυσκολίας του κειμένου.

Ο/η εκπαιδευτικός μπορεί να αξιοποιήσει επίσης τεχνικές ανάγνωσης και διαχείρισης άγνωστου/νέου λεξιλογίου για την ανάπτυξη σχετικών μεταγνωστικών στρατηγικών και δεξιοτήτων. Σε κάθε περίπτωση, θα πρέπει να τονίζεται στους μαθητές και τις μαθήτριες ότι το ζητούμενο δεν είναι να κατανοήσουν κάθε λέξη του κειμένου αλλά **να αναπτύξουν τη δεξιότητα και την αυτοπεποίθηση που απαιτούνται, ώστε να χειρίζονται κείμενα με άγνωστες λέξεις και να ανταποκρίνονται με επιτυχία σε μελλοντικές πραγματικές επικοινωνιακές συνθήκες**. Αυτό επιτυγχάνεται αποτελεσματικά μέσα από δραστηριότητες εντοπισμού της γενικής ιδέας ή συγκεκριμένων πληροφοριών σε ένα κείμενο (π.χ. χώρων, αντικειμένων, κατηγοριών), μέσα από τεχνικές “skimming” και “scanning”, μέσα από τη χρήση τεχνικών ανακαλυπτικής μάθησης και στρατηγικών όπως SQ3R (Survey, Question, Read, Recite, Review), KWL (What do I know, What do I want to know, What have I learned) ή άλλα είδη γραφικών οργανωτών (mind-maps, spidergrams etc).

Σε αυτό το πλαίσιο, οι εκπαιδευτικοί έχουν τη δυνατότητα να σχεδιάσουν τη διδασκαλία τους με βάση τις ανάγκες και τα ενδιαφέροντα των μαθητών και μαθητριών τους. Σύμφωνα με τα παραπάνω, προτείνεται οι εκπαιδευτικοί να:

- συμπληρώσουν ή και να προσαρμόσουν το παρόν διδακτικό υλικό σύμφωνα με τις ανάγκες της τάξης τους,
- παράσχουν στους μαθητές και τις μαθήτριες ευκαιρίες ενεργού μάθησης εμπλέκοντάς τους σε διαδικασίες αναστοχασμού, διερεύνησης, προβληματισμού, κριτικής σκέψης, σύνθεσης, αλληλεπίδρασης, αξιολόγησης, λήψης απόφασης κ.λπ.,
- στοχεύουν στον εμπλουτισμό των προσωπικών εμπειριών των μαθητών και μαθητριών, συνδέοντας τη σχολική τάξη με τον κόσμο του μελλοντικού τους επαγγέλματος.



1



# Protective Equipment

# 1

# Protective Equipment



◆ Discuss the following issues in class.



1. What kinds of safety equipment are used to protect workers on a construction site?
2. Why is it necessary to use protective equipment on a construction site?

1. Match the pictures on the right with the items (A) and the kind of protection (B) they offer.

Types of personal protective equipment (PPE)	
(A) Protective Items	(B) Kinds of Protection
1. harness	a. Respiratory protection
2. ear muffs	b. Eye protection
3. goggles	c. Hearing protection
4. dust mask	d. Hand protection
5. apron	e. Body protection
6. gloves	f. Foot protection
7. boots	g. Head protection
8. coveralls	h. Working from heights protection
9. helmet	i. Full body protection



(.....)



(.....)



(.....)



(.....)



(.....)



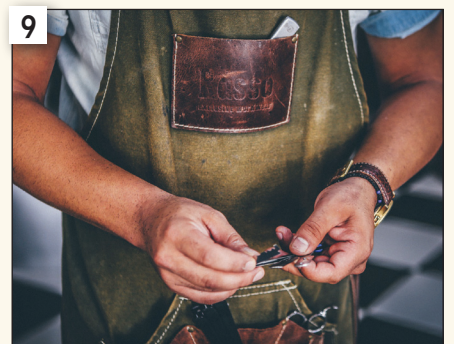
(.....)



(.....)



(.....)



(.....)

# 1

# Protective Equipment

2. Match the words with the pictures.

◆ *cutting* ◆ *grinding* ◆ *welding* ◆ *chipping* ◆ *sawing* ◆ *nailing*



.....



.....



.....



.....



.....



.....

3. Potential hazards at a construction site: match the words with the pictures.

◆ cut ◆ burn ◆ scrape ◆ electric shock ◆ fall ◆ contamination ◆ slip



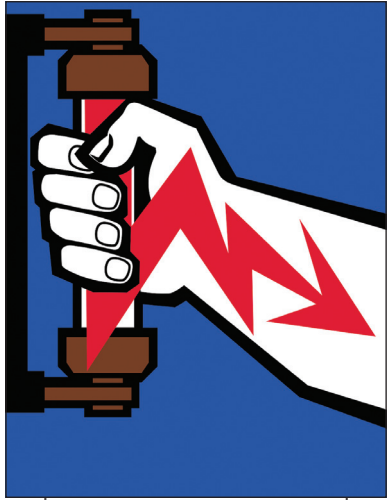
.....



.....



.....



.....



.....



.....



.....



4. Read a protective equipment supplier's webpage and then, in pairs, choose the appropriate heading for each paragraph.



- ◆ Hearing protection
- ◆ Hand protection
- ◆ Work pants and work shirts
- ◆ Reflective/high-visibility garments
- ◆ Foot protection
- ◆ Face and/or eye protection
- ◆ Respiratory protection
- ◆ Hard hats

## PPE for Construction Crews

There are so many potential hazards on a construction site, and personal protective equipment (PPE) is one of the workers' primary lines of defence. Each item is designed to minimise exposure to certain risks of injury or illness, as well as to the damage caused by those hazards in the event of an accident.

Every individual construction site and job duty should be evaluated for specific and unique dangers, so as to provide for the appropriate personal protective equipment. **Common hazards at construction sites**, such as electric shock, fall, excessive heat, etc., can be mitigated with appropriate PPE.

It is important that workers use PPE that is properly fitted. Each piece should stay on securely without causing discomfort or limited mobility; clothing and other items should not be loose, as this creates dangers for tripping, getting caught in moving parts, etc.

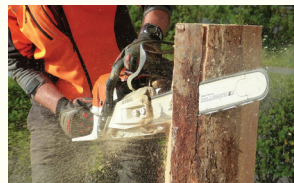
..... These are essential at most construction sites. They protect against head injuries from swinging or falling objects, striking the head against something or accidental head contact with electricity. Hard hats must be inspected for dents, cracks and other damage



prior to each use; damaged ones should never be worn.

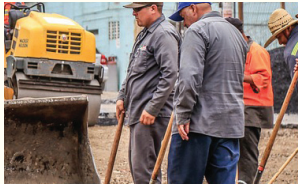
..... This often refers to steel-toe boots.

Work boots should be worn on site for protection against crushed toes due to heavy or falling equipment or materials. Workers also need puncture-resistant, nonslip soles, as work surfaces can have sharp objects on them, and slips are a major hazard at the job site.



..... Different types of work gloves are needed for particular tasks and risks at construction sites. For example, there are heavy-duty leather and canvas gloves for protecting against cuts

and burns, welding gloves for welders, heavy-duty rubber gloves for working with concrete, insulated gloves with sleeves for working with electric hazards and chemical-resistant gloves for working with chemical agents.



Workers should protect their full legs, full arms, and torso against cuts, scrapes, burns and other superficial injuries with thick, flexible work pants and shirts. These should fit closely and never be baggy while allowing for maximum mobility.



Safety glasses or face shields should be worn whenever there is a risk of flying debris or harmful dust getting in the eyes. Cutting, grinding, welding, chipping and nailing are some activities that necessitate protective eyewear. Along with basic safety glasses, some other protective wear for the face include welding shields, chemical splash goggles, and dust goggles.



Chainsaws, jackhammers as well as other tools and heavy equipment create noise levels that can damage workers' hearing—especially after prolonged exposure. Pre-molded or formable ear plugs are usually the best choice but acoustic foam-lined ear muffs that tightly seal against the head can work well too.



Brightly coloured and/or reflective jackets, vests or other upper-body clothing are important for worker visibility. It's generally advisable to wear them at all times on a job site but it is especially crucial along active roadways, in poor lighting as well as for dusk and night-time work.

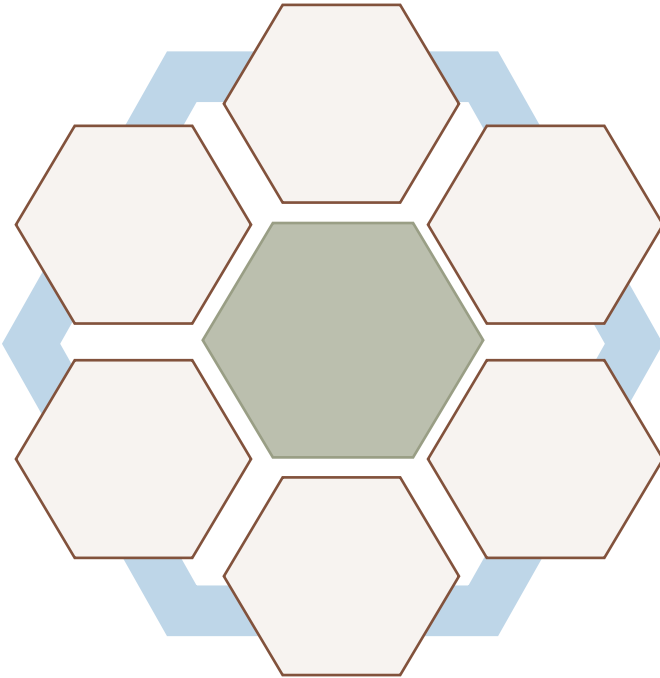


Another important class of hazards at sites are airborne risks. For the control of problems caused by breathing air contaminated by harmful dusts, fogs, fumes, mists, gases, smokes, sprays or vapours, the primary objective should be to prevent atmospheric contamination, as far as possible, by using appropriate respirators.



<http://www.trekkergroup.com/basic-personal-protective-equipment-ppe-construction-workers/>

5. Read the text again and then work in groups to complete the diagram with the different types of equipment for personal protection on construction sites.



- Are all of these types used in Greece?
- Whose responsibility is the protection from hazards on construction sites?
- Make a poster to present your work to your classmates.



## Modal Verbs

6. The following sentences appear in the text you read. Underline the modal verbs and match them with the functions below.

obligation	ability	possibility	permission	advice
------------	---------	-------------	------------	--------

- Some common classes of hazards at construction sites, which can be mitigated with appropriated PPE, include electrical, fall, chemical, harmful dust, struck-by...
- Workers also need puncture-resistant, nonslip soles, as work surfaces can have sharp objects on them.
- Each piece should stay on securely without causing discomfort or limited mobility; clothing and other items should not be loose...
- Hard hats must be inspected for dents, cracks, and other damage prior to each use; damaged ones should never be worn.



7. Complete the sentences in the “Personal Protective Equipment Instructions” below choosing the correct modal verb. You can use the list to get some help.

Modal verbs
<p><b>ABILITY</b></p> <p>can / be able to could was able to</p>
<p><b>POSSIBILITY / PERMISSION</b></p> <p>can / may could / might</p>
<p><b>PROBABILITY</b></p> <p>should / ought + present infinitive should / ought + perfect infinitive</p>
<p><b>ADVICE</b></p> <p>should / ought to</p>
<p><b>OBLIGATION / DUTY / NECESSITY</b></p> <p>must mustn't have to / had to should / ought to</p>
<p><b>ABSENCE OF NECESSITY</b></p> <p>don't have to / don't need to / needn't didn't have to / didn't need to needn't + have + past participle</p>
<p><b>DEDUCTION / LOGICAL ASSUMPTION</b></p> <p>must + present / perfect infinitive can't / couldn't may / might / could</p>

1.	When reading these instructions, please keep in mind that some features of the equipment <b>may</b> / <b>must</b> vary slightly depending on the model.
2.	This guide aims at helping you use your PPE so that you <b>can</b> / <b>should</b> take advantage of the equipment.
3.	Hard hats <b>should not</b> / <b>cannot</b> be stored in direct sunlight, as UV light and extreme heat can cause damage.
4.	If a hard hat maintains its protective function, you <b>must</b> / <b>should</b> not always replace it, even if there is some damage.
5.	Place the PPE in a location where it <b>can</b> / <b>might</b> easily be used and worn as soon as you arrive on site.
6.	In an outdoor environment, the equipment provided <b>needn't</b> / <b>may not</b> be the proper one to use. In that case, the user <b>should</b> / <b>can</b> take adequate additional measures.
7.	You <b>must</b> / <b>should</b> follow the instructions and safety regulations at all times.
8.	You <b>don't need to</b> / <b>may not</b> worry as long as you have followed the above instructions regarding personal protection.

## 8. Match the verbs in bold to their meanings.

_____	1.	You <b>didn't need to</b> buy a new hard hat since the old one did not have any cracks or splits.	a	... not allowed to...
_____	2.	You <b>had to</b> wear heavy-duty leather gloves to protect your hands from abrasion.	b	It's against the rules...
_____	3.	Workers <b>can</b> get their protective equipment from specialised online companies.	c	... were obliged to...
_____	4.	The constructor <b>might</b> as well provide the workers with additional protective equipment if necessary.	d	Is it OK if...
_____	5.	You <b>mustn't</b> ignore safety rules and regulations on construction sites.	e	It wasn't necessary...
_____	6.	You <b>can't</b> enter the construction site if no trespassers are allowed.	f	It's possible...
_____	7.	<b>Could</b> I please borrow your extra pair of goggles for eye protection?	g	Perhaps he will....





9. Read the following text and, in pairs, write possible questions that a reporter could ask a construction site inspector in relation to protection measures. Then, find another partner and role play a dialogue between the reporter and the inspector.
- If you are the reporter, use the questions you prepared!
  - If you are the inspector, be prepared to answer!

## How to Protect Yourself on Construction Sites



Personal Protective Equipment (PPE) should be used in almost every work environment and construction site. All workers must follow specific instructions which are intended to help users learn about the different types of PPE that can be used, how to determine which PPE they need for their work tasks and how to select and take care of their PPE.

Selecting the most suitable eye and face protection, the following elements should be taken into consideration: they must be able to protect against specific workplace hazards

and should provide unrestricted vision and movement. In addition, protective eye and face wear must comply with the National Standards. Potential hazards which may lead to foot and leg injuries include falling or rolling objects, crushing or penetrating materials, hot, corrosive or poisonous substances, electrical hazards, static electricity or slippery surfaces.

Scaffold safety is also an important topic which must not be ignored as falls are a leading hazard. You must always make sure thorough scaffold safety inspection is carried out by a competent person.

Large mobile scaffolds should be designed by an engineer. The mobile scaffold designer must have a clear understanding of the job site conditions, how the platform can be moved, the loads it needs to support, and the height and width it should have. A mobile scaffold's height oughtn't be more than four times its minimum base width. Mobile scaffolds shouldn't have side brackets or platforms.



10. Watch a video about respiratory protection on construction sites and mark the statements that follow as true (T) or false (F).



UNITED STATES  
DEPARTMENT OF LABOR



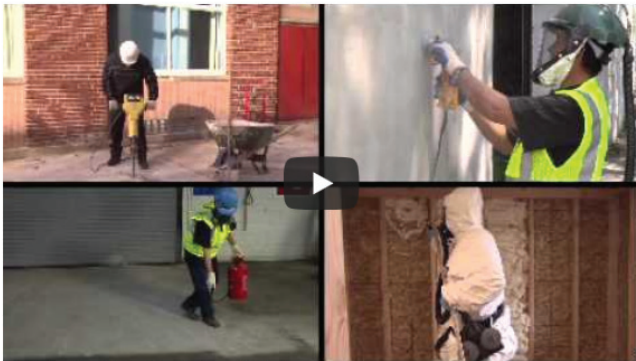
Occupational Safety and Health Administration

English | Spanish

ABOUT OSHA ▾ WORKERS ▾ EMPLOYERS ▾ REGULATIONS ▾ ENFORCEMENT ▾ TOPICS ▾ NEWS & PUBLICATIONS ▾ DATA ▾ TRAINING ▾

OSHA Videos / Respiratory Protection in Construction (Proteccion Respiratoria en la Construcccion)

## Respiratory Protection in Construction (Proteccion Respiratoria en la Construcccion)



Total Running Time: 10:13 mins - Date: January 2012

[View the transcript](#)



Total Running Time: 12:43 mins - Date: January 2012

[View the transcript](#)

[http://www.osha.gov/video/respiratory\\_protection/construction.html](http://www.osha.gov/video/respiratory_protection/construction.html)

## True or False?



		True	False
1.	Employers must provide workers too with worksite-specific training.		
2.	Asbestos makes you unconscious or kills you in minutes.		
3.	A good respirator will protect you against every hazard.		
4.	According to the standards, the workers themselves are responsible for correcting any problems they may have with their respirators.		
5.	It is the workers' union's responsibility to ensure that all of the requirements of the standard have been met.		
6.	It is necessary for the written protection programme to remain stable and unchanged over time in all workplace conditions.		
7.	The respiratory protection programme must be managed by a qualified, trained programme administrator.		

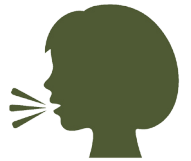
## 11. Watch and listen carefully again and answer the following questions in pairs.

- What does OSHA stand for?
- Give an example of what you can learn in a respiratory protection training.
- Name some respiratory hazards.
- What kinds of controls must an employer introduce when there are respiratory hazards at the job site?
- Does every respirator protect you against every hazard? Why / why not?



12. Watch and listen carefully again and complete the missing words in the following sentences.

- |   |   |
|---|---|
| 1 | If you are exposed to _____, you will need a different type of respirator.  |
| 2 | The standard requires your employer to evaluate the respiratory _____ in the workplace.   |
| 3 | Some of these requirements, such as training and fit testing, can be provided by an _____, including a union, or an apprenticeship programme. |
| 4 | Since construction work settings change over time, the written programme must be updated as necessary to account for those changes in _____.  |
| 5 | Notify your supervisor if something changes in your workplace that conflicts with your _____.   |
| 6 | This video has provided you with a brief overview of respiratory hazards in _____ and respiratory protection programme requirements.          |



13. Work in groups of three to four students and make a mind map with:

- types of accidents that may happen on a construction site, and
- ways those accidents could be prevented.



14. Some members of the construction workers' union are planning to organise local seminars on safety rules and protection on construction sites. Read their suggestions in the following spidergram. In your groups, classify them according to the order you wish them to be accomplished justifying your answers.



15. Discuss the following issues.

- a. Are safety protection rules respected on construction sites in Greece?
- b. Whose responsibility is to establish the rules and the safety programmes' requirements?





16. Use the information from this unit to create a manual with instructions on safety and protection on construction sites. Write about:
- a. various ways of protection
  - b. reasons why safety rules are necessary
  - c. any other information you consider necessary.

## Construction Safety Guidelines



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2



A low-angle, perspective view of the Golden Gate Bridge, showing its massive suspension towers and cables stretching across a blue body of water under a clear sky.

# Public Works



A low-angle, perspective view of a modern, curved glass skyscraper with multiple balconies, set against a clear blue sky.

## 2 Public Works



*Before you read the text, answer the following questions.*



- ✓ What service does each of these constructions provide?
- ✓ Who is responsible for the construction of these structures in a country?
- ✓ What other kinds of buildings or infrastructures can you think of?



1. Read the adapted text about public works and then do the tasks that follow.

**Public works** is a multi-dimensional concept in economics and politics, touching on multiple arenas including: **recreation** (parks, beaches), **aesthetics** (trees, green space), **economy** (goods and people movement, energy), **law** (police and courts), and **neighbourhood** (community centres, social services buildings).

Public works, in particular, are a broad category of **infrastructure** projects, financed and constructed by the government for employment, recreational, health and safety uses in the greater community. They tend to be high-cost investments; however, they are vital to a country's economic development and prosperity. Projects related to infrastructure improvements may be funded publicly, privately or through public-private partnerships.

Public works include **public buildings** (municipal buildings, schools, hospitals), **transport infrastructure** (highways, bridges, ports, airports), **public spaces** (public squares, parks), **public services** (water supply, sewage, dams, electrical grid) and other **physical assets** and **facilities**. **Municipal infrastructure, urban infrastructure, and rural development** usually represent the same concept but imply either large cities or developing nations' concerns respectively.

The terms **public infrastructure** or **critical infrastructure** are at times used interchangeably. However, critical infrastructure includes public works (dams, waste water systems, bridges, etc.) as well as facilities like hospitals, banks, and telecommunications systems and views them from a national security viewpoint and the impact on the community that the loss of such facilities would entail. Furthermore, the term public works has recently been expanded to include **digital public infrastructure** projects.

According to another distinction, infrastructure can be hard or soft. **Hard infrastructure** refers to the physical networks necessary for the functioning of a modern industry. This includes roads, bridges, railways, etc. **Soft infrastructure** refers to all the institutions that maintain the economic, health, social, and cultural standards of a country. This includes educational programmes, official statistics, parks and recreational facilities, law enforcement agencies, and emergency services.

The public works sector is responsible for planning, reviewing, coordinating, and supervising public construction projects in a country, in accordance with regulations concerning sustainability, high-quality, efficiency and reliability.

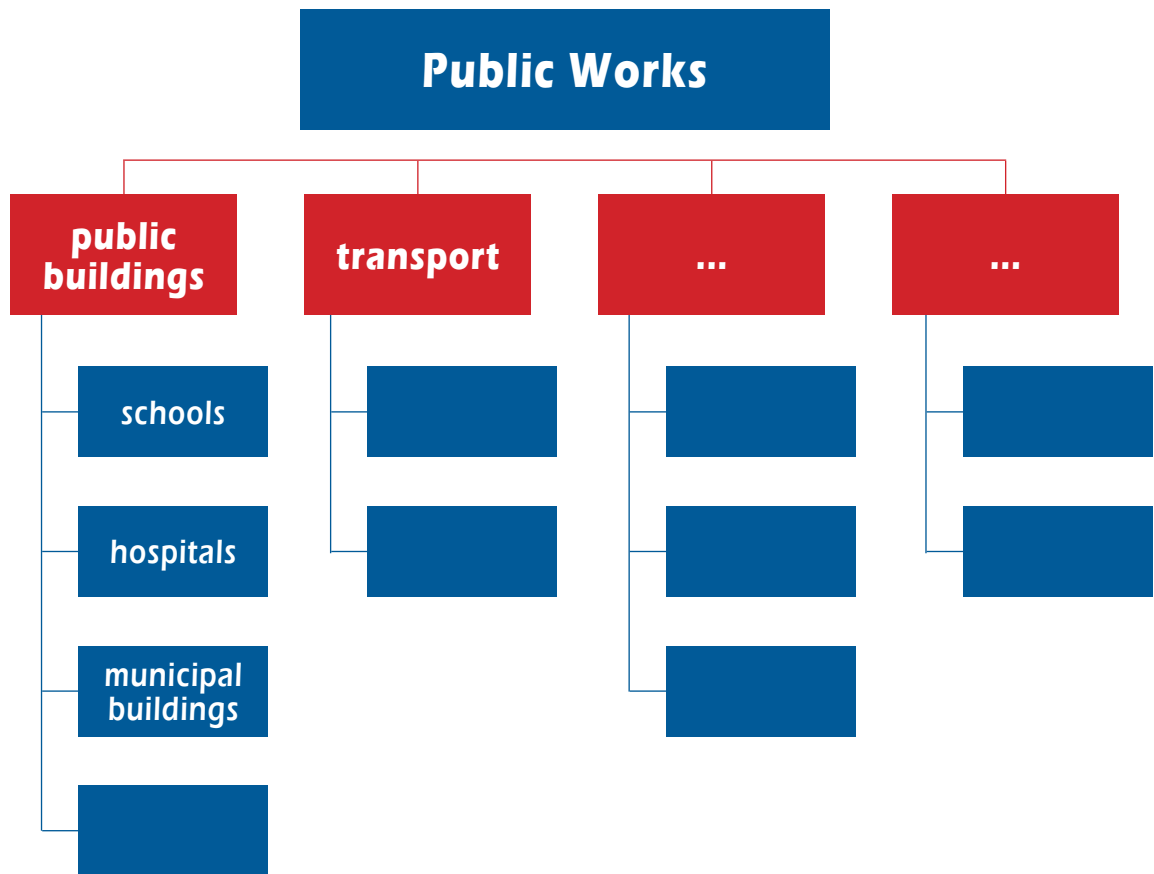
[https://en.wikipedia.org/wiki/Public\\_works](https://en.wikipedia.org/wiki/Public_works)

<http://en.wikipedia.org/wiki/Infrastructure>

# 2 Public Works



In groups, draw a mindmap like the one below to classify words from the text that relate to public works. You can also add any other relevant words you know.

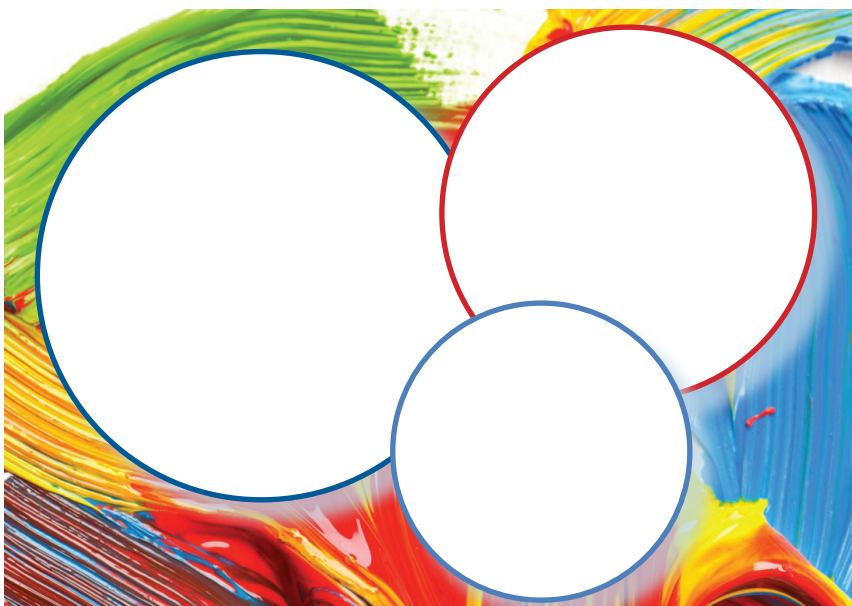




2. Complete the table below with words from the text.

The public works sector is responsible for:	
Main types/ kinds of infrastructure:	
Ways of funding:	

3. Work in pairs and make a poster with the different services public works provide to citizens (e.g. education, cleaning etc.). Then make a presentation to your classmates.



A **service** is a transaction in which no physical goods are transferred.

**Public services** are paid for by society as a whole. They are provided by government to supply public needs such as transport, communications, or utilities such as electricity and water.



## Relative Clauses

4. Read the following sentence and answer the questions below.

The public works sector, **which** is responsible for planning, reviewing, coordinating, and supervising public construction projects in a country, acts in accordance with specific regulations.

- ✓ What does the word **which** refer to?
- ✓ What is its function in the sentence?
- ✓ Which other words are used for the same function?

5. Compare the above sentence with the captions below. What do the relative pronouns refer to?



This cement, which is lumpy, is not suitable for the pavement.



The man who is wearing a helmet is the project manager.



The area where the project was carried out was a poor one.



The construction company, whose name is well-known, is responsible for building the water dam.

6. Study the following tables about the formation of Relative Clauses. Add any notes you think are important for you to remember!

<i>Relative Clauses</i>		
	Adverbs-Pronouns	
We use relative clauses to describe/ refer to person/ object/place/thing in the main clause	who / that which / that where when whose why	people objects/animals/ideas place time possession reason

<i>Defining</i>	A defining relative clause gives necessary/essential information to the meaning of the main sentence.	<ul style="list-style-type: none"> <li>It is not put in commas.</li> <li>The relative pronoun can be omitted when it is the object of the relative clause.</li> </ul>
<i>Non-defining</i>	A non-defining relative clause gives extra information about the person/object/place it refers to.	<ul style="list-style-type: none"> <li>It is put in commas.</li> <li>The relative pronoun/adverb cannot be omitted.</li> </ul>

<b>Notes</b>	<i>That</i> can be used instead of <i>who</i> , <i>whom</i> , or <i>which</i> but it is never used after commas or prepositions.	Mr Bennett, who/that is the manager of the company, fired two workers last week.
	<i>Whose</i> is never omitted.	The site workers whose benefits are reduced are on strike.
	With <i>when</i> and <i>where</i> we do not need a preposition.	The building where I used to work at was a rather old one.
	<i>Which</i> may also refer to a whole sentence.	The bridge collapsed after the heavy rain, which was rather unexpected.
	Prepositions before relative pronouns are mostly used in formal English.	<ul style="list-style-type: none"> <li>The man <b>to whom</b> I spoke is a site engineer → <i>formal</i></li> <li>The man I spoke <b>to</b> is a site engineer → <i>colloquial</i></li> </ul>

## 2 Public Works

7. Complete the sentences using the correct relative pronoun/adverb. Then write *D* for defining and *ND* for non-defining sentences and whether the relative can be omitted or not.

- 1 Building a house, \_\_\_\_\_ is a complicated process, involves knowledge of architectural design, building codes and basic construction elements.
- 2 A potential new homeowner \_\_\_\_\_ usually consults with two or three contractors requests bids from each one.
- 3 I will always remember \_\_\_\_\_ I decided to set up this leading company in the construction sector.
- 4 The crew of the construction site at Highbury Rd, \_\_\_\_\_ the wall collapsed, works to save the houses at peril.
- 5 Do you know the reasons \_\_\_\_\_ the bridge over the river finally collapsed?
- 6 Our building company, \_\_\_\_\_ strategy is successful, will finally carry out the project of the dam construction.
- 7 That's the construction site \_\_\_\_\_ the accident happened last week.
- 8 The hard hat worker, \_\_\_\_\_ wears a blue uniform, is the leader of the workers' union.
- 9 The hospital, \_\_\_\_\_ has recently been refurbished, is on the east side of the city.
- 10 The area, \_\_\_\_\_ the road works take place, has problems with the stability of the underlying soils.

8. Complete the sentences below so they are true for you using relative pronouns/adverbs.

- 1 I would like to work at a place .....
- 2 If I knew the reason .....
- 3 My best friend, .....
- 4 My teacher, .....
- 5 The school .....
- 6 Do you know the person .....





## How public spaces make cities work



More than 8 million people are crowded together to live in New York City. What makes it possible? In part, it's the city's great public spaces – from tiny pocket parks to long waterfront promenades – where people can stroll and play. Amanda Burden helped plan some of the city's newest public spaces, drawing on her experience as, surprisingly, an animal behaviourist. She shares the unexpected challenges of planning parks people love – and why it's important. (This talk was presented at an official TED conference).

[https://www.ted.com/talks/amanda\\_burden\\_how\\_public\\_spaces\\_make\\_cities\\_work#t-50185](https://www.ted.com/talks/amanda_burden_how_public_spaces_make_cities_work#t-50185)

<https://www.flickr.com/photos>

9. Now watch Amanda Burden's speech on how to create public spaces and especially parks in big cities. Then do the tasks below.

[https://www.ted.com/talks/amanda\\_burden\\_how\\_public\\_spaces\\_make\\_cities\\_work](https://www.ted.com/talks/amanda_burden_how_public_spaces_make_cities_work)



# 2 Public Works

10. *True* or *False*?



Watch and listen carefully and mark the following statements as true (T) or false (F).

	True	False
a. Open and pleasing public spaces is the way to have quality life in big cities.		
b. Greenery and resting places are not really important for everyday city life.		
c. It is not always so easy to create successful public spaces that attract citizens.		
d. The best way to reshape life in cities is by reducing use of motor vehicles.		



11. Watch and listen carefully again and then answer the following questions in pairs.



1. What do people usually have in mind when they think about cities? What does Amanda Burden think?
2. What is the key to planning a great city and why?
3. Why did Paley Park in midtown Manhattan become a small phenomenon? What is special about it?
4. Trying to find housing for one million additional New Yorkers and at the same time deal with the problem of traffic in the city, they came up with an ambitious solution. What was that?

## 2 Public Works

12. Watch and listen carefully again and complete the missing words in the following sentences.



1. Even more important than buildings in a city are the \_\_\_\_\_ in between them.
2. This little space became a small phenomenon, and because it had such a profound \_\_\_\_\_ on New Yorkers, it made an enormous impression on me.
3. This little park provided what New Yorkers crave: \_\_\_\_\_.
4. For me, becoming a \_\_\_\_\_ meant being able to truly change the city that I lived in and loved.
5. Open spaces in cities are opportunities for commercial investment, but they are also opportunities for the \_\_\_\_\_ of the city.
6. Instead of building a park as a complement to future development, why don't we reverse that equation and build a small but very \_\_\_\_\_ public open space first.
7. New York does place a high value on attracting immigrants, so we were excited about the prospect of \_\_\_\_\_.
8. We needed to redo our zoning and basically reshape the entire city, targeting where \_\_\_\_\_ could go.



13. ✓ Brainstorm specific public works which you consider user-friendly.
- ✓ Write down examples of public works in your area which you classify as user-hostile.

14. Discuss the following topics in pairs.



- a. Which public works make life in a neighbourhood easier for citizens?
- b. Which are the advantages of living in a neighbourhood with parks and open-space green areas? Are there any disadvantages you can think of?

## 2 Public Works

15. Work in groups and discuss the following issues.

The local town council has decided to improve the quality of life in the area where you live and has put forward the following suggestions. Decide which two of them are the most important ones justifying your answers.



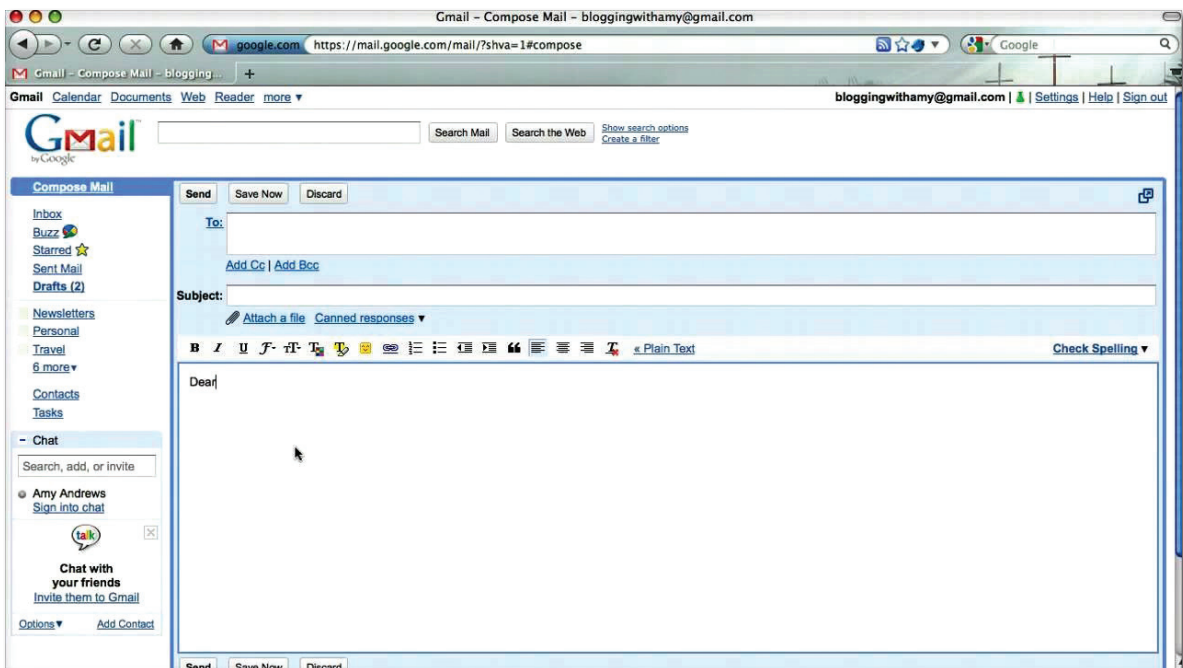
16. a. Do citizens in Greece influence the decisions concerning the construction of public works in their area?
- b. What do you think about the existing infrastructure in the area where you live?





17. Look at the photos and write a formal e-mail to a member of the city council to report a road problem in your area. Write about:

- the existing problem
- the maintenance needed
- any more information you consider necessary



## 2 Public Works





Βάσει του ν. 3966/2011 τα διδακτικά βιβλία του Δημοτικού, του Γυμνασίου, του Λυκείου, των ΕΠΑ.Λ. και των ΕΠΑ.Σ. τυπώνονται από το ΙΤΥΕ - ΔΙΟΦΑΝΤΟΣ και διανέμονται δωρεάν στα Δημόσια Σχολεία. Τα βιβλία μπορεί να διατίθενται προς πώληση, όταν φέρουν στη δεξιά κάτω γωνία του εμπροσθόφυλλου ένδειξη «ΔΙΑΤΙΘΕΤΑΙ ΜΕ ΤΙΜΗ ΠΩΛΗΣΗΣ». Κάθε αντίτυπο που διατίθεται προς πώληση και δεν φέρει την παραπάνω ένδειξη θεωρείται κλεψίτυπο και ο παραβάτης διώκεται σύμφωνα με τις διατάξεις του άρθρου 7 του νόμου 1129 της 15/21 Μαρτίου 1946 (ΦΕΚ 1946,108, Α').

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