



National Safety  
CHALLENGE

## Site Safety Lesson Plan 1



### Objectives

- 1) To understand the difference between a hazard and a risk
- 2) To be able to identify safety hazards on building sites
- 3) To identify and understand electrical hazards on building sites and the specific work that may increase the risk of these hazards

### Introduction

Inform students that they will be learning about general and electrical hazards which can be present on a construction site and the risks that they pose.

Introduce the topic of site safety by referring to previous knowledge that some of the students might have in relation to seeing or being on a construction site; and the dangers that are associated with being on a site.

### Development

- Elicit from the students their understanding of the difference between a hazard and a risk. Explain the definitions and ask students to record in their notes.
  - **A hazard is a potential source of harm or adverse health effect on a person or persons.**
  - **A risk is the likelihood that a person may be harmed or suffer adverse health effects if exposed to a hazard.**
- Have a class discussion about potential general hazards on a site. Then ask students to write down general hazards and think about and write down potential electrical hazards on a site, completing question 1 on the Site Safety Activity Sheet. Examples of electrical hazards include overhead wires, underground cables, electricity poles/masts and fallen wires.
- Discuss the potential risks from the hazards noted by students. Elicit the nature of the electricity risks by considering the meaning of the following: *getting an electric shock / being electrocuted when coming in contact with live cables of any voltage / if a cable is pierced or crushed this can cause an explosion, fire or flames / burns to the body / cranes, trucks or tipper lorries and scaffolding coming into contact with overhead wires.*
- Ask students to identify the main electrical hazardous activities on site and discuss i.e. *operating heavy machinery near overhead wires / excavations (digging and drilling) near underground cables / working near electricity poles/masts, using power tools.*

### Conclusion

Ask students to complete question 2 on the Site Safety Activity Sheet, identifying potential risks within these hazardous activities.

### Extension Activity:

National Safety Challenge – ask students to think about how they can innovate safety in the construction sector and how they would implement that innovation. Entries and ideas will be accepted in any format: written (up to 300 words), visual (e.g. photography, poster, design, sketch) or digital (e.g. audio, video). Visit [www.esbnetworks.ie/education](http://www.esbnetworks.ie/education) for more information on entering.

### Resources

- Site Safety Activity Sheet

### Key Vocabulary

- Hazard
- Risk
- Excavation
- Scaffolding
- Heavy machinery
- Voltage
- Electricity



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## Site Safety Activity Sheet



### 1. Discuss and answer:

Can you think of 6 general hazards that might exist on a construction site?

- 1) .....
- 2) .....
- 3) .....
- 4) .....
- 5) .....
- 6) .....

### 2. Can you think of 4 electrical hazards that might exist on a construction site?

Explain, using examples, the nature of the potential risk associated with these hazards.

ELECTRICAL HAZARDS	POTENTIAL RISK