Unit 201: Employment and employability in the construction sector (Tutor)

# Worksheet 12: Effective problem solving

**Task 1:** Read the scenario provided, then answer the questions that follow.

You are a construction worker working on a private project to build a three-storey house. You are responsible for installing the roofing material on the building. The client has changed their mind on the roof covering. The new roofing material was supplied by the client and the architect has not provided you with any specifications or guidelines regarding the material. You are not familiar with this particular type of roofing material as you have not used it before, and you are not sure if it meets the local building regulations.

1 What steps would you take to find out if the roofing material you are using is compliant with local building regulations?

To determine if the roofing material is compliant with local building regulations, you could take the following steps.

* Check the packaging or labels on the roofing material to see if it meets any local or national standards for construction material.
* Look up the roofing material manufacturer’s website to see if they have any information about the material’s compliance with local building regulations.
* Check with local building or construction authorities to see if the roofing material meets their requirements.
* Consult with your supervisor or project manager to see if they have any specifications or guidelines for the roofing material.

2 What are the consequences of using non-compliant roofing material?

Using non-compliant roofing material can have serious consequences, including the following.

* Fines and penalties from regulatory authorities.
* Increased risk of leaks, structural damage or other safety hazards.
* Delays in the project timeline if the roofing material needs to be replaced or brought up to code.

3 Why is it important to involve your supervisor in this situation?

Answer: It is important to involve your supervisor in this situation because they are responsible for ensuring that the project complies with all local building regulations and specifications. Your supervisor may have more information about the roofing material or may be able to consult with other experts to determine its compliance. In addition, involving your supervisor shows that you are taking responsibility and seeking guidance when you are unsure about a situation.

4 How would you approach your supervisor about your concerns?

You could approach your supervisor by scheduling a meeting or asking for a moment to speak with them privately. You could explain your concerns and provide any information or evidence you have gathered about the roofing material. You could also ask for their advice on how to proceed and if they have any additional information or specifications that could help.

5 What could you do to prevent a similar situation from occurring in the future?

To prevent a similar situation from occurring in the future, you could take the following steps.

* Communicate with your supervisor or project manager about any concerns or questions you have regarding materials or specifications.
* Research and verify the compliance of any materials or equipment before using them.
* Attend training or educational sessions to stay up to date on local building regulations and safety guidelines.
* Keep records of any compliance certifications or documentation for materials and equipment used in the project.

**Task 2:** As a self-employed tradesperson in the UK, effective problem-solving skills are essential for your success. Put the steps below in order in the spaces provided.

Step 1

*Define the problem*

Step 2

*Gather information*

Step 3

*Generate solutions*

Step 4

*Evaluate the solutions*

Step 5

*Implement the solution*

Step 6

*Evaluate the outcome*

**Task 3:** Using the space provided, answer the questions that follow related to problem solving in the construction industry.

1. What is the first step in solving any problem?

The first step in solving any problem is to clearly define the problem. Take the time to identify the issue and the specific challenges you face.

2. What should you do when you have identified the problem?

When you have identified the problem, you should gather all the information you can about it. This includes any relevant data, facts and opinions from experts in your field. This information will help you to understand the problem better and identify potential solutions.

3. What should you do after gathering all the information about the problem?

After gathering all the information about the problem, you should brainstorm possible solutions and write them down. Don’t dismiss any ideas at this stage, even if they seem impractical, unrealistic and far-fetched.

4. How should you evaluate each solution after brainstorming?

After brainstorming, evaluate each solution based on how well it addresses the problem, the cost and time involved in implementing it, and the potential risks and benefits. Choose the solution that best meets your needs.

5 What should you do after selecting the best solution?

After selecting the best solution, you should implement it. This may involve ordering parts, scheduling appointments and/or hiring additional staff to help you complete the work.

6 What should you do after implementing the solution?

After implementing the solution, evaluate the outcome to determine if it was effective. If the solution did not solve the problem, repeat the process from step 1 until you find a solution that works.