

Problem solving in practice

Introduction

How are you at solving problems when they present themselves? Even if you are great, get some practice solving some new problems in this activity which could help you learn a more adaptable approach to getting through an issue. You can write your answers in the boxes.

Worksheet 1: Solve this puzzle

Read and have a go at solving this puzzle using the space provided.



1. A man must get a fox, a chicken, and a sack of corn across a river
2. He has a rowboat, and it can only carry him and one other thing
3. If the fox and the chicken are left together, the fox will eat the chicken
4. If the chicken and the corn are left together, the chicken will eat the corn

How does the man do it?

Problem solving in practice

Worksheet 1 (cont'd)

How did you go about trying to solve the problem? E.g. did you write some information down, discuss the options with someone else, use trial and error?

Can you think of a time when you have needed to apply problem solving skills to a situation – how did you go about it? This might have been at school, college, in the workplace or when volunteering.

Problem solving in practice

Worksheet 2: Steps to solving a problem



Watch this problem solving animation (click the image to the left), which presents six steps to developing an adaptable approach to solving problems of any size.

The six steps to problem solving in this approach are:

1. Identify

What's the problem? Make sure you're clear on what lies at the heart of the issue. Seeing what it looks like is the best place to start.

2. Break it down

Everything looks scary whole. Split the problem into manageable chunks and address each piece separately before trying to reach a solution.

3. Observe

Look for patterns. Things that keep happening and could be causing the problem. Are you repeating behaviours that prevent you from moving forward?

4. Think freely

At this point, take a step back and keep the big picture in mind. Pause, reflect and remind yourself of what you're trying to achieve.

5. Apply

When you think you might know what's wrong, try a few different options. You won't know whether something works unless you try it out.

6. Evaluate

What have you learnt? What would you do differently?

Problem solving in practice

Worksheet 3: Putting the six stages into practice

You're going to have a go at applying the six stages to a problem yourself. Read through the example here first.

Scenario:

You're searching for part time work waiting tables because you like talking to people and need to fit work in around college hours. Every time you approach somewhere, they want previous experience you don't have.

Identify

I don't have any experience waiting tables.

Break it down

Everyone starts somewhere, without any experience. My friend Abby got a job at a café near college, I can ask her how she did it for advice.

Observe

Maybe places I've been so far haven't been actively hiring – I've focussed on places near my house. I also haven't really asked the people I know to help me on my search as I wanted to do it on my own.

Think freely

- I can check at my college if anyone is advertising suitable positions
- I will ask my friends with similar jobs if where they're working need help
- I could look for other types of jobs that suit my skill set
- I should ask my family if they know anyone in hospitality who could give me work experience
- A catering company or events venue might take on temporary staff occasionally and be able to give me the experience I need
- I can explore volunteering opportunities, or a work trial

Apply

- I'm first going to talk to people I know at college, and focus on applying to places who have positions available
- I can also offer to do a trial, or work a short unpaid shift
- I will also look at college for local volunteering opportunities, or job openings, that might give me relevant experience that'll help my search

Evaluate

After helping out serving food and drink at a charity event that I found out about through my college, I secured a trial shift at a cafe nearby. I worked hard and was offered a job that worked around college.

Problem solving in practice

Worksheet 3 (cont'd)

Select one of the following scenarios to try and solve a problem yourself using the six stages. Remember to consider what resources, skills and knowledge you have, or can access, which might help you.

School raffle

The school is running a raffle to raise money for charity, but tickets aren't selling. How can you promote the raffle further in order to encourage more sales?

Polluted river

Your workplace does a lot of printing, often things are only printed for one meeting and you think that a lot of paper is being wasted. Everyone buys their lunch in plastic containers and eats with plastic cutlery. There also aren't any recycling or food waste bins in the office.

CV

You wrote your CV a few months ago, listing out the grades you have achieved so far and a few things about yourself and what you do in your spare time. You sent it off to a few employers online but haven't heard a single thing back. It's been three weeks now. What can you do?

Identify

Break it down

Observe

Think freely

Apply

Evaluate

Problem solving in practice

Worksheet 3 (cont'd)

Use this table and the six stages to solve a problem you've faced in the past and see if it could have helped you. You could use the problem you thought about in activity one. Remember, if you're completing this worksheet digitally you can always come back to it next time you have a problem to solve.

Identify

Break it down

Observe

Think freely

Apply

Evaluate

Problem solving in practice

Reflection

What has helped you solve problems in the past, and what might help you improve in the future?

How did you find using the six steps to solve a problem? Is there anything you will do differently next time?

Problem solving in practice

Answers

The puzzle:

1. The man and the chicken cross the river (fox and corn are safe together)
2. The man leaves the chicken and crosses back
3. The man takes the fox across the river
4. Since he can't leave the fox and the chicken together, he takes the chicken with him and crosses back
5. As the chicken and the corn can't be left together, he leaves the chicken and takes the corn across and leaves it with the fox
6. The man can then cross back, pick up the chicken, and cross the river one last time

Problem solving scenarios:

Some possible solutions you may have come up with after filling in the six stages are below.

Scenario 1:

- Ask around school why people haven't bought tickets yet and see if you can address the concerns raised
- Consider offering a deal that saves people money when they buy a higher number of tickets
- Promote the raffle in a parent newsletter
- Promote the raffle outside of your school, such as by placing a poster in your local community centre or library, or contacting a local radio station

Scenario 2:

- Consider the root of the issue; are there a lack of bins in the area? Consider if you could write a letter to the local council, and/or local newspaper to complain if so
- Create posters that aim to educate your local community about the issues being caused by the plastic pollution and place them in high profile places around the area
- You will also need to have quite a few conversations with people, so make sure you're also prepared to talk about the problem and use persuasive language to get people to help

Scenario 3:

- Contact the office manager or senior staff about why there are no recycling bins in the office
- Share any recent articles about the importance of recycling with colleagues, or reports of offices going paperless to inspire positive change
- Ask if your employer could provide re-useable cutlery to staff