



# Problem solving

Age range: 7-11

 **BARCLAYS** | LifeSkills



# Session overview

| Time       | Key learning outcomes  | Resources  |
|------------|--|--|
| 10-60 mins | By the end of the activity pupils will be able to: <ul style="list-style-type: none"> <li>Define the skill of problem solving</li> <li>Understand how problem solving can help in a job and at school</li> <li>Discuss how they use this skill in their daily lives</li> </ul> | <ul style="list-style-type: none"> <li>Problem solving slides</li> </ul> |

This lesson has been developed for pupils aged 7-11, to help them understand the importance of problem solving both throughout education and in the world of work. Through case studies, class discussions and an activity, pupils will start to understand how they practise their problem solving skills at home and at school. Completing the lesson supports The Skills Builder Framework for problem solving.

The session can be delivered as a stand alone lesson to focus on this particular skill, or as part of a series. The Barclays LifeSkills programme has a [core transferable skills toolkit](#) containing seven lessons for seven different skills for the primary age group which can be delivered in any order.

To complete the activity within this lesson, you will need to provide your class with some basic equipment: paper, tape and marbles/small balls.

## Contents

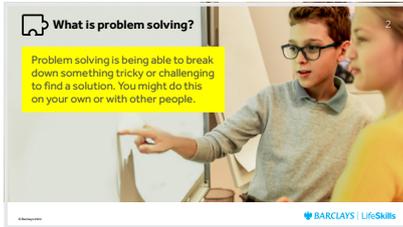
| Activities                             | Time    | Page |
|--|---------|------|
| Activity one: What is problem solving? | 10 mins | 3    |
| Activity two: Problem solving puzzle   | 20 mins | 4    |
| Activity three: Case studies           | 30 mins | 5    |

## Word bank

- Communities:** People who belong to the same group, for example all live in the same area
- Council:** A group of people who make decisions about a town, city or county
- Department:** Groups within an organisation that work in a particular area
- Doctor:** Someone who treats people who are ill
- Initiative:** Coming up with an idea and doing it by yourself
- Skills:** The things you're good at, for example listening, being creative
- Solution:** A way to solve a problem or deal with a difficult situation
- Sustainability:** Small changes we can make to look after the planet

# Activity one

## What is problem solving?



Problem solving

- Steps 0-2 of the Skills Builder Framework for problem solving

Start by showing your pupils this [short animation](#) that outlines the set of core transferable skills which the LifeSkills programme focuses on. Teamwork is also included in this animation as the eighth transferable skill. Instead of showcasing this skill in a separate lesson, we embed it throughout the other core transferable skills lessons.

What's special about these skills in the world of work is that they can be used in any industry and almost any job.

Young people can develop these skills at home, in school and in clubs they attend. As they are likely to carry out a number of different roles throughout their working lives, it's important they recognise how they can transfer these skills from one setting to another, especially as they move from education into work.

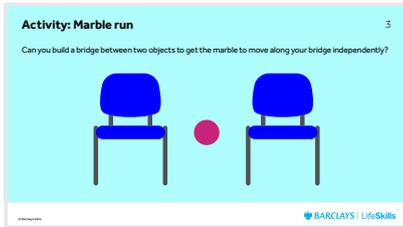
**Show slide 2 and discuss the following definition of problem solving: being able to break down something tricky or challenging to find a solution. You might do this on your own or with other people.**

It may also be useful to outline The Skills Builder Framework definition: The ability to find a solution to a situation or challenge. Ask them to think about why it's important and how they might show it in their daily lives.

If you are working with younger pupils or those who need more support, you could use the example that they have forgotten their pencil case so ask to borrow some pens/pencils from a classmate or teacher. Another example is that your classmate is talking loudly on the seat next to you so you can't hear what the teacher is saying, so you ask for them to be quiet or for the teacher to speak louder.

# Activity two

## Marble run



Split pupils into small groups and give each group some paper, tape and a marble (a small ball could be used instead). Ask groups to create a bridge that can transport the marble along a route between two tables or chairs that are one metre apart.

The bridge created must allow the marble (or ball) to run independently along it and once pupils let the marble go, they cannot touch it again during its run. Show **slide 3** and ask pupils to reflect on these questions:



Problem solving

- Steps 0-5 of the Skills Builder Framework for problem solving

**Did everyone have the same idea to solve the problem?**

**Did you consider different solutions before you started?**

**How can you come up with more than one possible solution?**

**How can you use pros and cons to decide on the best solution?**

**How did you work as a team to solve the problem?**



# Activity three: Case studies

In this section you will find a written and a film case study that help demonstrate the skill of problem solving. You could use both case studies, or just one depending on what you think will work best for your class. Discussion prompts for each case study are differentiated so that you can pick the most appropriate ones for your pupils.

## Case study 1: Sadiya




Problem solving

- Steps 0-3 of the Skills Builder Framework for problem solving

Sadiya has a job at the council. Start by discussing this job; do your class know that councils work with local communities and organisations to maintain and improve services for the people who live there? Explain what someone working for the council might do in a typical day at work, for example check local records, speak to local people about what matters to them, oversee plans for play parks and allotments.

**“Whilst working for the council, I was able to work across different departments. However, I struggled with working for different teams, having lots of responsibilities and reporting to more than one manager.**

**To keep on top of my work, I looked at which tasks were most urgent and set achievable deadlines for each one. My key advice for building problem solving skills is to keep calm, work out what the problem is and break it down into smaller parts to come up with a solution.”**

Display **slide 4** and work through the below discussion prompts with your class. You can either complete them as a class, get pupils to discuss in pairs or small groups, or ask pupils to write down their thoughts individually.

### Discussion prompts for younger pupils or those that need more support:

- Explain to pupils how Sadiya has shown problem solving skills in her job, for example setting clear deadlines and prioritising urgent tasks
- Explain to pupils that knowing when to ask for help is an important part of problem solving

**How can problem solving skills help you prioritise tasks such as doing your homework?**

### Discussion prompts for older pupils or those who need less support:

**How has Sadiya shown problem solving skills?**

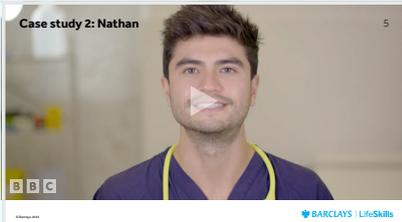
**What other ways could Sadiya solve her problem? For example, if she didn't have time to do all of her work, she could speak to her manager to ask for support.**

**How can breaking down a problem into smaller parts help when trying to find a solution?**

**Can you think of any other jobs where you would need this skill?**

# Activity three: Case studies

## Case study 2: Nathan



Head over to the BBC Bitesize website to watch its film, as a class, about Nathan who is a doctor and founder of a sustainable healthcare initiative, by clicking [here](#) or by clicking the link on **slide 5**. First briefly discuss with your class what a doctor is and what they might do in a typical day at work, e.g see patients, create a treatment plan, issue sick notes. You may also want to discuss sustainability and how sustainable products can help to protect the environment.

Work through the below discussion prompts with your class.



Problem solving

- Steps 0-5 of the Skills Builder Framework for problem solving

### Discussion prompts for younger pupils or those that need more support:

- Explain to pupils how Nathan has shown the skill of problem solving in his job, for example, he knew there was lots of waste from plastic cups so developed a reusable cup that they could use instead as a solution to reducing the plastic waste

**How can you come up with lots of solutions to a problem?**

**How can you work out which solution is going to work best?**

### Discussion prompts for older pupils or those who need less support:

**How does Nathan show the skill of problem solving in his job?**

**Why do you think problem solving is an important skill for this job? For example, being a doctor you will be faced with many illnesses that need treating**

**How can teamwork help when solving problems?**