# Problem Solving

*The ability to find a solution to a situation or challenge*

GETTING STARTED

## Completing tasks

STEP 0

### I complete tasks by following instructions

What is meant by instructions?

How do we best prepare to follow instructions?

STEP 1

### I complete tasks by finding someone to help if I need them

How does it feel when you need help?

When do you ask others for help?

How do you know who the best people are to help you with different problems?

STEP 2

### I complete tasks by explaining problems to someone for advice if I need

How can you best explain a problem you are having to someone else – what do they need to know?

What is meant by advice?

How can you make sure you listen well to advice?

STEP 3

### I complete tasks by finding information I need myself

When might we need additional information to solve a problem?

How do we know what information we need?

Which are the best places for different types of information?

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INTERMEDIATE

## Exploring problems

STEP 4

### I explore problems by creating different possible solutions

What sort of problems might have more than one answer?

How can you come up with lots of possible solutions?

Why is that sometimes more difficult than it sounds?

STEP 5

### I explore problems by thinking about the pros and cons of possible solutions

What is meant by pros and cons?

Why can it be helpful to use these on complicated problems?

How can you use pros and cons to make a decision?

STEP 6

### I explore complex problems by identifying when there are no simple technical solutions

What sort of problems are most difficult to solve?

How can we solve complex problems?

STEP 7

### I explore complex problems by building my understanding through research

Why is research an important part of exploring complex problems?

How can we know what research to carry out?

What are some of the different types of research?

STEP 8

### I explore complex problems by analysing the causes and effects

What are causes and effects?

Why are causes and effects a critical part of understanding complex problems?

How can causes and effects join together?

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ADVANCED

## Analysing complex problems and solutions

### STEP 9

### I create solutions for complex problems by generating a range of options

Why is it important to consider a range of solutions for complex problems?

How can we come up with a range of solutions?

How do we know whether our solutions are feasible?

### STEP 10

### I create solutions for complex problems by evaluating the positive and negative effects of a range of options

How might you choose between different solutions to a complex problem?

Why is it important to know what you want to achieve?

Why is it important to consider secondary effects when working on complex problems?

### STEP 11

### I analyse complex problems by using logical reasoning

What is logical reasoning?

What is the difference between deductive and inductive logic?

What are logic trees, and how can we use them?

### STEP 12

### I analyse complex problems by creating and testing hypotheses

What is a hypothesis?

Why are hypotheses helpful to us in solving problems?

How can we test hypotheses?

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MASTERY

## Implementing strategic plans

STEP 13

### I implement strategic plans to solve complex problems

What is a strategic plan?

What different elements does a strategic plan have?

How should problem solving and analysis inform your strategic plan?

STEP 14

### I implement strategic plans to solve complex problems and assess their success

How can you assess the ultimate success of your strategic plan?

How can you measure that you have achieved what you want to?

How can you track progress along the way?

STEP 15

### I implement strategic plans to solve complex problems and draw out learning to refine those plans over time

How will you learn through the process of implementing a strategic plan?

What are the types of learning that you might get?

How can you use this learning to help you to address a complex problem?