

It is a way of thinking  
It is making the impossible possible  
It is creating solutions to problems in everyday life

It is not thinking like a computer  
It is not always using a computer as the solution  
It is not limiting creativity

ATTITUDES

SKILLS

## The Computational Thinker: Attitudes and Skills



Problem solving  
Designing systems  
Understanding behaviour

### Making mistakes

I can enjoy things that go wrong and learn from them.  
I see mistakes as a normal part of solving problems.

### Perseverance

I don't give up. I'm prepared to keep having a go to see what happens.  
I keep going, even when things seem confusing.  
I'm determined to find solutions.

### Imagination

I can look at things in unusual ways.  
I'm ready to consider the impossible.  
Sometimes I leave a problem for a while. A solution might come to me when I'm thinking about something else.

### Collaboration

I can use other people's ideas.  
I can share my ideas.  
We can talk together to solve a problem.  
I can teach my peers and they can teach me.

### Pattern Recognition

Is this similar to a problem I've already solved?  
How is it different?  
How are the parts of the problem connected?

### Decomposition

Can I break this problem up into smaller parts?  
Can I explain the different parts of this problem and solution?

### Algorithm Design

What do I need to think about to make this happen?  
What are the steps I will need to do to solve this problem?

### Abstraction and Generalisation

Which is the information I actually need?  
What don't I need to know?  
Have I made this more complicated than I need to?  
Will this work for other things?

