

DOCTOR

I became a doctor because I like helping people.

I use maths in a lot of ways to save lives: from measuring and counting to analysing trends and patterns. A patient needs to take 35 mg of a certain drug every morning and 20 mg every evening. I can prescribe tablets containing 5 mg, 10 mg or 25 mg, each available in packs of 15 or 20, what would be the easiest combination for the patient?

What would I have to prescribe so that the patient has enough tablets for one month (30 days)?



FASHION DESIGNER

I love patterns and colour so fashion design is my dream job.

I use maths to create patterns and also to calculate how much fabric I need for a design and to get the best value in buying fabric. I need a 2 m by 1 m strip of fabric. I can buy fabric in two different widths – 150 cm and 112 cm.

Which would be the most economical?



Maths at Work



FARMER

I love working outdoors with nature.

I use maths a lot on the farm and for managing the business. I might need to estimate how much money could I make next year if I sowed spring barley in my 8 hectare field.

How would I be able to predict that? What information would I need?

ENGINEER

As an engineer I can see my designs being built which is a great feeling.

I use maths a lot as an engineer. I use maths and science together to understand how materials, machines, devices and other systems behave. I also use a lot of basic maths. For instance, today I had a 7 m long trench dug that is 1.5 m wide and 2 m deep.

How much soil have we removed? How could I calculate the weight of all that soil?



GAME DESIGNER

I always loved gaming so becoming a game designer brings my hobby and work together.

I use maths to design the patterns that make up the virtual environment, the actions of characters and to keep score and stats for players.

If a character does a front flip and turns to her right, does another front flip and turns to her left and does a back flip and turns to her right, which way will she be facing?

How would I get the computer to track movement and direction?



CARPENTER

I like working with my hands and making things.

As a carpenter I use maths every day to measure, design and construct. I need to make up L-shaped panels with outside edges of length 1 m and inside edges 0.4 m long.

How many panels will I be able to get out of a 2.4 m x 1.2 m sheet of plywood? How might I work this out?

