

SHAPES, AREA AND VOLUME



ANNE OKAFOR
Construction Planner, Cruden Building (West)

SUBJECTS STUDIED AT SCHOOL

- Geography
- Maths
- English
- Home Economics
- Art
- Biology
- Graphic Design
- Modern Studies

FURTHER EDUCATION: College at 27: NC Built Environment – HNC Construction Management University; First Class BSc (Hons) Construction Management – 2019 MSc Quality Management (currently)

CAREER JOURNEY SO FAR



FUTURE ASPIRATIONS



- To continue learning and developing my skills
- To encourage more people into Built Environment and STEM careers because the opportunities available can be life changing.
- To progress in my career and study further
- To achieve Chartered Status.

Q&A WITH ANNE

What does your company/organisation do?

We are a Construction company and we build houses and other commercial properties for our clients.

We solve problems.

What types of activities do you do in your job?

I combine lots of information about the construction project into a gantt chart which shows activities and the time it takes to do them.

I monitor progress on this by going to site and measuring it and reporting on my findings to the business stakeholders.

I monitor and analyse data to understand what the data is telling us so we can make better more informed decisions.

What does a typical day at work look like for you?

- Check and respond to emails
- Site Visit – go to site and see how much progress has been made – take pictures.
- Back to Office to write my report – ‘mark-up’ drawings (highlight what has been done onto drawings of plans and elevations, document what I saw on my site visit.
- Work on new programmes – looking at drawings and looking for the information from multiple sources to put into new gantt charts.
- Monitor data from our sign in portals and report on findings.

What are your favourite things about your job?

People, Legacy, Opportunity and Variety

People – The people I meet and work with are fantastic in construction – we have many different personalities and working in teams is really motivating.

Legacy – Being part of the team that makes buildings that we all live and work in is really special and lets me help change the world and give people nice places to live, work, study.

Opportunity – Construction is full of opportunity, for progression, for making good money, for variety.

Variety – Every day is different, every project is different.

HOW ANNE USES SHAPES, AREA AND VOLUME AT WORK

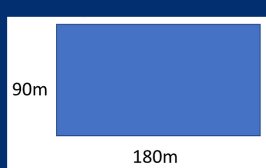


- Estimation – time (duration) for how long tasks will take, how many people are needed.
- Graphical Representation – Making Gantt Charts, Pie charts
- Data Analysis – Understanding what the information is telling us and using it to make better decisions.
- Time – understanding how we can manage lots of tasks into a certain timescale and managing that timescale.
- Risk management and understanding probabilities.
- Reading and understanding technical drawings (Plans, elevations etc)
- Monitoring progress.
- Understanding Materials

ACTIVITIES

Problem 1

Calculate the area of this plot of land: (Express in both m² and hectares)



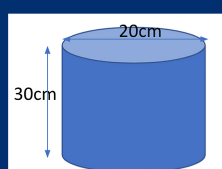
Problem 2

Calculate the volume of this steel beam:



Problem 3

Calculate the volume of this paint tin:



Solutions

Problem 1

Area = Length x breadth
Area = 180 x 90
Area = 16,200 meter squared.

For hectares = Divide by 10,000
1.62 hectares.

Problem 2

Volume = Length x Width x height
Volume = 5 x 0.4 x 0.4
Volume = 0.8 meter cubed

Problem 3

Volume = $\pi r^2 h$
Volume = (3.14) x radius (10) squared x height (30)
Volume = 9.424 litres