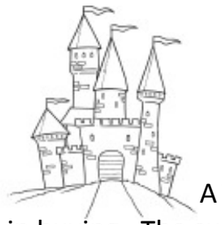
TOY CASTLE	SKETCHING	NAME		N5	TC1



Project: Toy Castle

A Toy shop has completed a recent survey of customers asking what they are interested in buying. The survey results showed a large interest in a toy castle made from large wooden building blocks. The shop has asked you to design a toy castle for them. They require working drawings to be sent away for manufacturing the toy castle. They would also like some advertising data to help them decide that your idea is the one that will sell best.

1 On this page you should sketch some ideas for your design using both orthographic and pictorial sketching techniques. (an example is shown below)

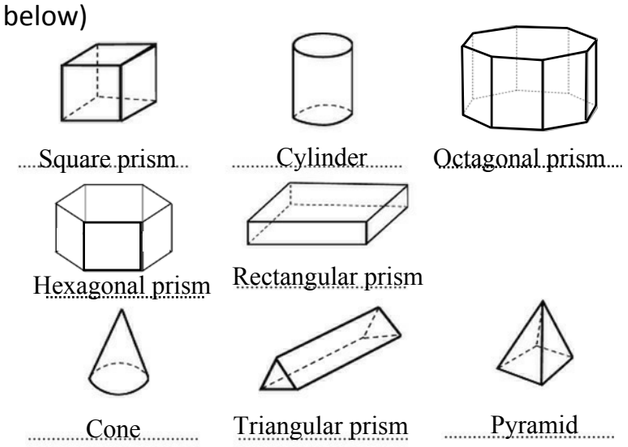
Things to consider!

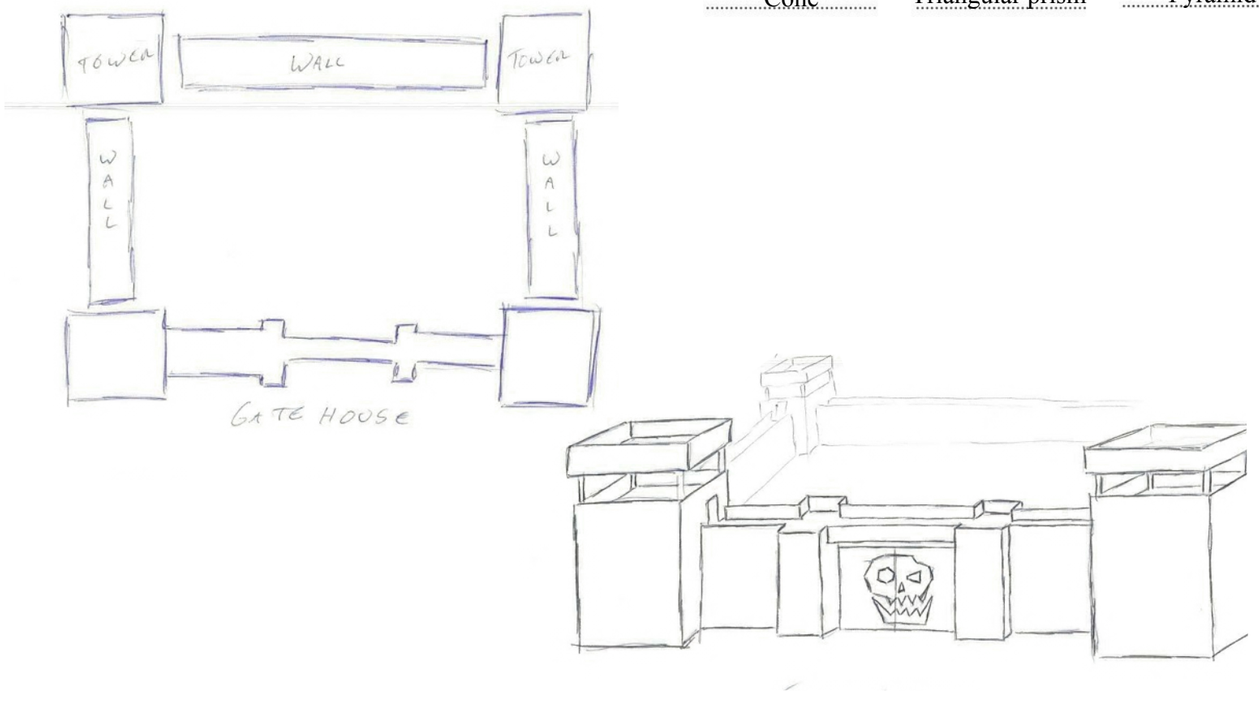
Which forms will you use to construct your model?

In the example shown below the pupil used mainly square and rectangular prisms.

What type of pictorial views?

There are several types of pictorial view; perspective, isometric, oblique, planometric. (The example below is oblique sketching)





Use this space to sketch your orthographic designs

Use this space to sketch your pictorial designs

TOY CASTLE	CAD TASK	NAME		N5	TC2

2a

Choose 4 of the following CAD sketching and 3D modelling commands you will use to create your castle design as a 3D computer generated model.

Arc, Circle, Line, Rectangle, Extend, Trim, Mirror, Pattern/Array, Fillet, Chamfer, Extrude(join), Extrude(cut), Revolve.

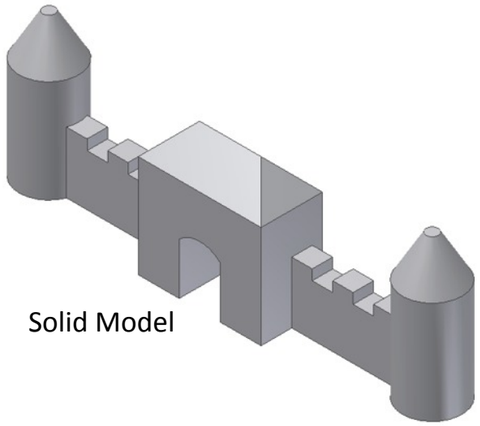
Top Tip - You may want to look at your Dimensioning and CAD/3D modelling notes.

2b

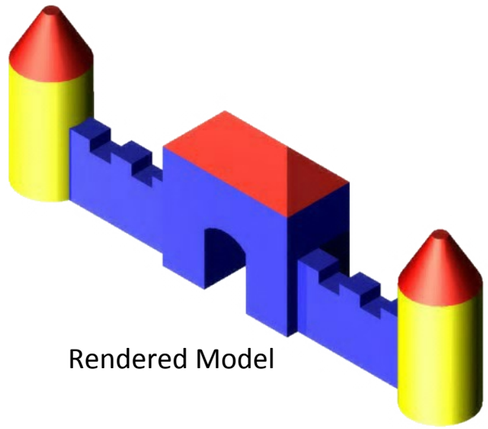
Sketch how you will use the CAD sketching and 3D modelling commands you have chosen above.

2c

Using your orthographic and pictorial sketches **produce a 3D computer model** of the castle. The model may also be rendered in a computer studio environment for use in CAG productions. The example below is rendered using ***primary colours*** because it is a child's toy. You may also want to include an exploded view to show how your model goes together.

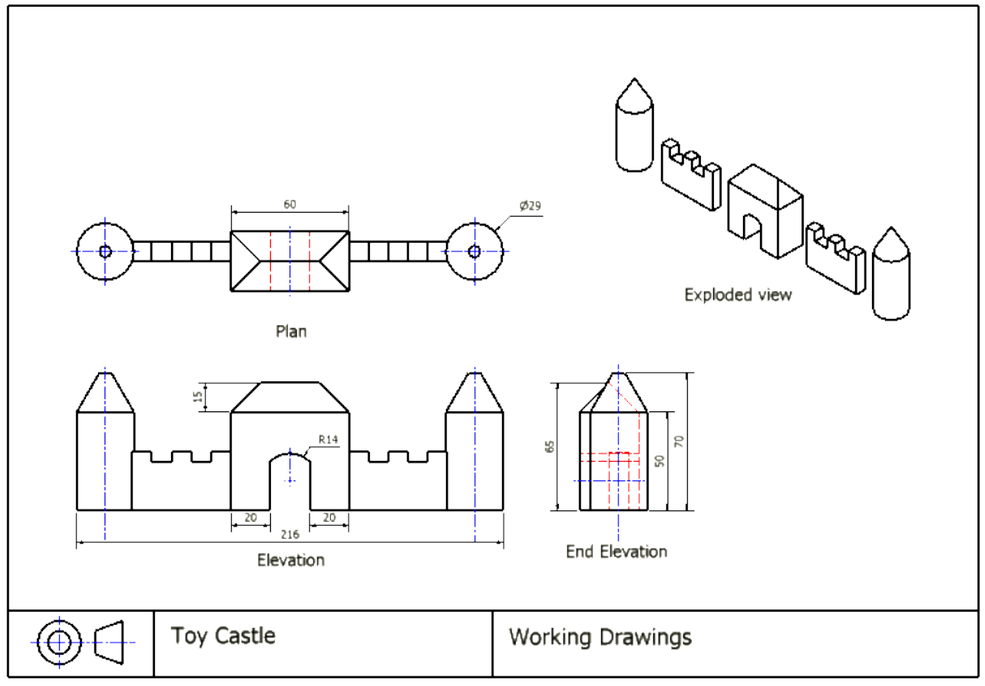


Solid Model



Rendered Model

After making the computer 3D model, **generate orthographic views** for the production drawings. The generated orthographic views should include; centre lines, hidden detail and overall dimensions to aid manufacture.



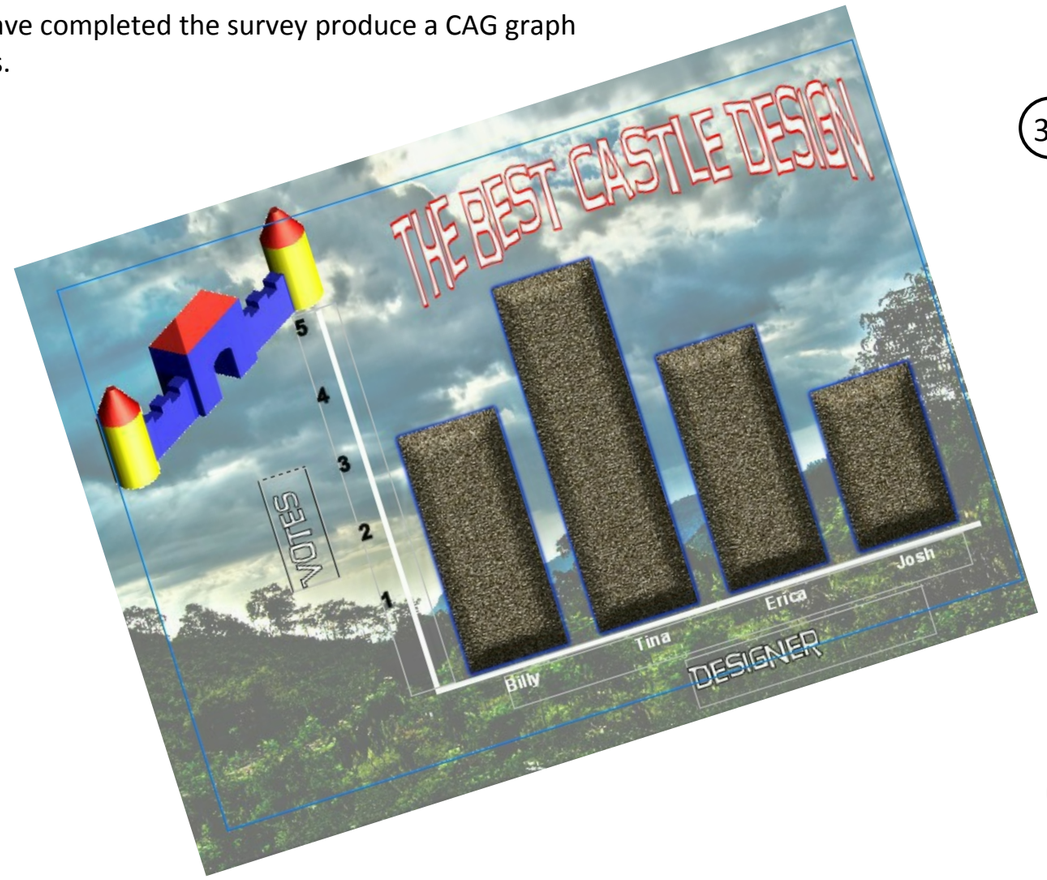
	TOY CASTLE	INFORMATION GRAPHIC	NAME		N5	TC3

3a

Form a group with other pupils in your class. As a group produce a survey to find out which of the castles is the favourite. This could be done by asking all of your classmates to vote which one is the favourite.

3b

When you have completed the survey produce a CAG graph of the results.



3c

Choose 1 of the following Design Principles you used to create your informational graphic and state the effect.

Contrast, Unity, Dominance, Depth.

Design Principle _____

Effect _____

_____

3d

Choose 1 of the following Design Elements you used to create your informational graphic and state the effect.

Line, Shape, Space, Colour.

Design Element _____

Effect _____

_____

3e

Choose 2 of the following DTP features you used to create your informational graphic and state the effect.

Alignment, Bleed, Drop Shadow, Font Style, Guidelines, Page Format, Reverse, Text Format, Transparency.

DTP feature 1 _____

Effect _____

_____

DTP feature 2 _____

Effect _____

_____

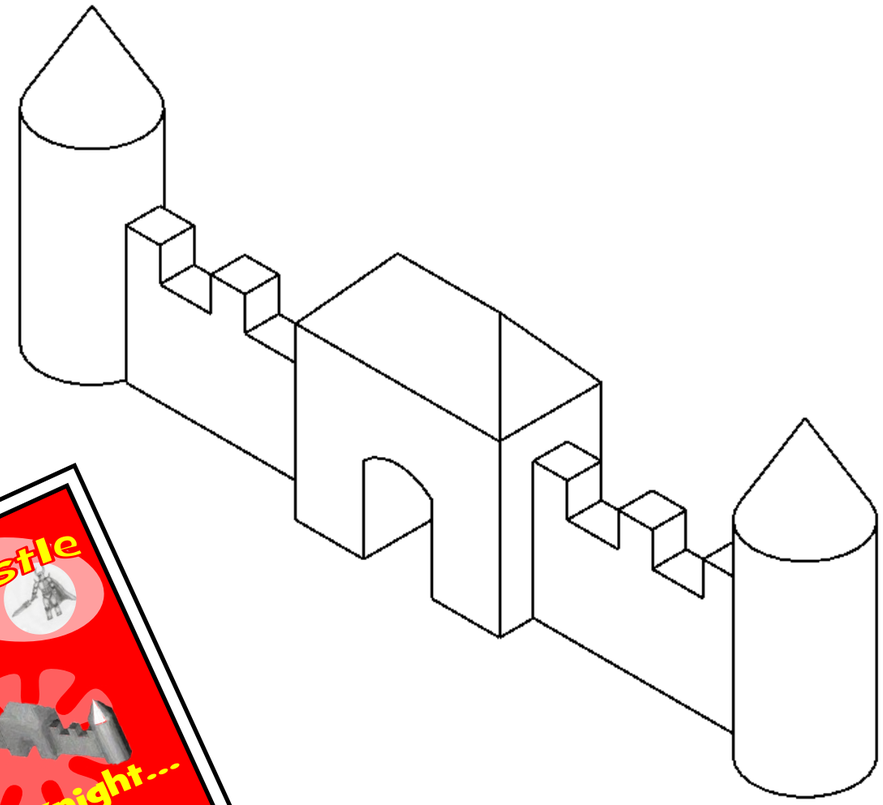
Top Tip - You may want to look at your Desk Top Publishing and Colour Theory notes.

TOY CASTLE	COLOUR & RENDERING	NAME		N5	TC4

4a

Using colour, render a 2D and a 3D view of your castle design.

Top Tip - If you print out blank views from your 3D CAD model you can trace them.



4b

Design and manually produce an advert for your toy castle (using one of your rendered drawings). Answering the following colour theory questions will help your design.

Top Tip - You may want to look at your DTP and Colour theory notes.

Name a ***primary***, ***secondary*** and ***tertiary*** colour that you might consider using.

Primary _____ ***Secondary*** _____ ***Tertiary*** _____

Suggest a colour that you associate with the following terms

Danger _____ Nature _____ Energetic _____

Hygienic _____ Powerful _____ Bright _____

You could choose a relaxing colour scheme or a dynamic colour scheme for your advert. How could this be achieved?

To achieve a ***relaxing*** colour scheme I could _____

To achieve a ***dynamic*** colour scheme I could _____

What would be a benefit from using a contrasting colour for the background?

_____