



Design a bicycle

There are many different models of bicycle. Dependent upon who is to ride the bicycle, and when and where it is to be used, designs must meet the needs of the cyclist. For example, a blind person who enjoys cycling might enjoy riding a tandem with a sighted friend. Someone who works in a city, which requires a train journey followed by a 15-minute walk to get to the place of work, might save time each day if they had a bicycle that could be carried in a bag. All bicycles should be safe and reliable.



Design brief

Design a bicycle for one of the following people:

- ▶ A mother with a two year old son.
- ▶ A primary school teacher.
- ▶ A blind teenager.
- ▶ A famous person such as a pop star, author or footballer.
- ▶ A fictional character from a book, film or television programme.
- ▶ A father who works in the city. He gets there by train and then has to travel a further two miles from the station.

What do you need to do?

1. Decide who is to be your customer.
2. Make a list of your customer's requirements.
3. Research models of bicycles using the internet, catalogues, photographs and pictures showing how bicycles have developed over time, and combine this with knowledge of bicycles you have seen being ridden. For example, you could investigate mountain, commuter, road, touring and tandem bicycles. What are the bicycles' key features? How thick are the tyres? How large are the wheels? How could bags be carried? What shape are the handlebars?
4. On an A3 piece of paper design your bicycle. Label the key features which make your bicycle suitable for your chosen customer.
5. Present your ideas to your class. Be persuasive. Explain clearly why your bicycle is particularly suitable for your customer's needs. If the class was your customer, would they buy your bicycle?

Suggested organisation

- Consider the design brief
- Group brainstorm
- Design the product
- Present ideas
- Evaluate: Does the product meet the design brief? What worked well? What could be improved?