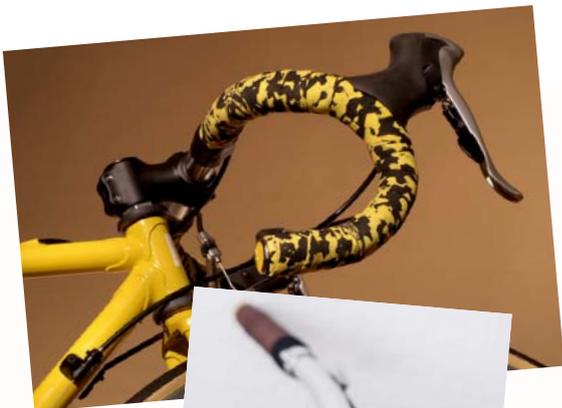




Comfort

When choosing a bicycle, safety, reliability and comfort are key areas to consider. Questions need to be asked. Will this bicycle let me get to the places I need to go? Is it hard-wearing? Will I need to replace parts? How comfortable is the saddle? What do the handlebars feel like? Are they in a comfortable position? The queries that could be raised when evaluating a bicycle are endless!

Manufacturers of bicycles need to carry out quality control research in order to decide on the best materials to use. They need to consider the options available and carry out fair tests to ensure that choices are based on valid and reliable evidence. Each part of a bicycle is likely to be the result of many hours of designing, making and evaluating.



Design brief

Make a profile for a material suitable for handlebar grips. Within the profile provide information relating to the material's texture, durability, appearance, strength and ability to withstand different weather conditions. Give the material a score ranging from 10 (ideal for covering handlebars) to 1 (poor).

What do you need to do?

1. Use ICT and information from friends to research materials currently used for handlebar grips. What are their benefits and disadvantages?
2. List the design criteria that the material needs to meet to be suitable for handlebar grips.
3. Choose one material to investigate. Carry out tests on the material (e.g. Is the material strong? How easy would it be to cover a handlebar with the material? What happens if the material gets wet? Will it feel too cold in wintery weather?).
4. Present your results as a poster.
5. Display the posters. As a class choose the material that would be best for handlebars.
6. If time allows, research designs for handlebars. Where are the handlebars in relation to the saddle? What shapes of handlebar are used on racing bicycles? Record the shapes available and consider which handlebars would be most suited to a variety of people.

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?