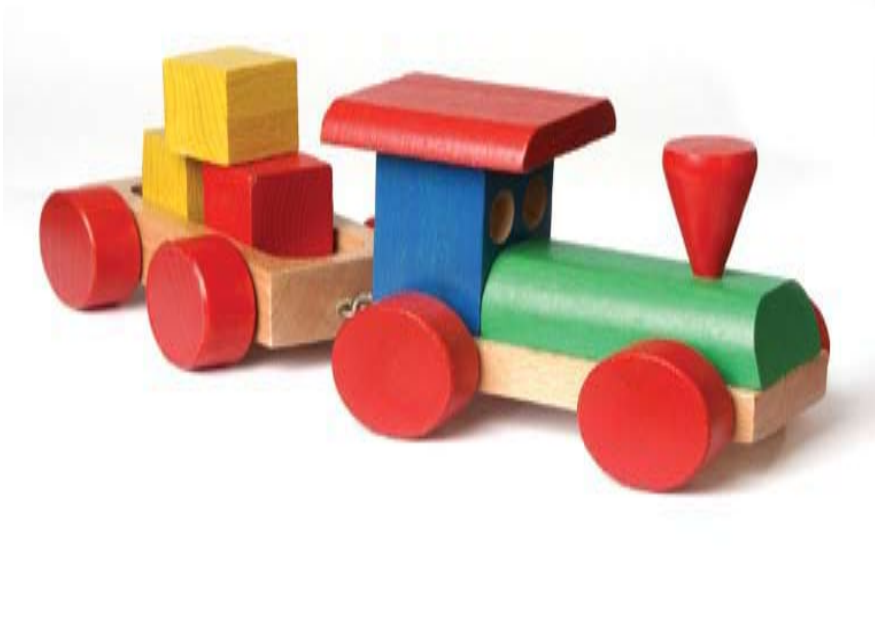


# BSI Education

Information for Schools and Colleges

## So you want to...

## Design or make a toy



## Toys and the Law

With the emergence of the single European Market an increasing number of British Standards have become harmonised with European Standards. This includes the British Standard for toys, which is known as BS EN 71. This means that the Standard is both a British (BS) and European (EN) Standard.

Since 1990 the European Community Directive (community law) for Toy Safety has set out the 'essential requirements' that toys must be manufactured to in order to be legally sold within the European Community.

All toys sold in Europe must meet these minimum requirements and carry CE marking. CE marking is designed to remove European trade barriers. It indicates that the product complies with the European Directive. It is **not** a European safety or quality mark.



Some toys also carry the Kitemark. This indicates that they have been independently tested and comply with the relevant standards.

### **BS EN 71 is made up of eleven parts. Briefly these are:**

#### **Part 1 : Mechanical and physical properties**

This means all the parts of a toy that you can touch. This part of the standard tries to make sure that toys cannot stab, trap, mangle or choke.

#### **Part 2 : Flammability**

This part covers, for example, wendy houses, soft toys, fancy dress and disguise clothes and wigs. The Standard tries to ensure that if a product does catch fire you can drop it or climb out of it before serious injury occurs.

Certain flammable materials, that pose the greatest risk, are prohibited from all toys.

### **Part 3 : Migration of certain elements**

This basically means poisons. Limits are set for chemicals such as lead, cadmium and mercury, which could be dangerous if swallowed or chewed by a child. For example, there should not be large amounts of lead in paint for toy cars that could be chewed by a baby.

### **Part 4 : Experimental sets for chemistry and related activities**

Its aim is to limit the dangers of using such sets by, for example, limiting the amount of certain chemicals used in sets.

### **Part 5 : Chemical toys (sets) other than experimental sets**

Includes 'toys' containing chemicals, for example, water based paints or photographic developing sets. This part of the standard sets the requirements for the substances and materials used in them.

### **Part 6 : Graphical symbol for age warning labelling**

This part covers age warning symbol labelling. It specifies the requirements of the symbols used on toys not suitable for children under the age of three.



### **Part 7 : Finger paints**

Specifies requirements for colourants and preservatives, and is concerned with limiting the risks of ingesting paint and of prolonged skin contact with paint.

### **Part 8 : Swings, slides and similar activity toys for indoor and outdoor family domestic use**

This part is concerned with limiting the dangers of protruding parts, limiting heights and ensuring stability, and requires that no part of a child or of a child's clothing can be trapped, It also specifies that the toy or its packaging is clearly labelled "for domestic use" and whether it's for indoor or outdoor use.

## Part 9: Organic chemical compounds (limits)

This part sets the limits for over 600 substances that might be present in toys that could cause harm to a child from chewing or sucking, from swallowing, from contact with skin or with eyes, or from inhalation.

## Part 10: Organic chemical compounds (preparation of samples)

This part specifies how samples from toys and extracted toy materials can be prepared for testing to see if the compounds present, such as solvents and preservatives covered by in Part 9, could cause harm to children.

## Part 11: Organic chemical compounds (testing)

The third part of the series on chemical compounds sets out testing procedures so that the toys and toy materials prepared using Part 10 can be checked against the limits set in Part 9.

## Tests

Below are some ideas to think about and tests you can carry out at home. These tests are not actual British Standard tests but are based on them.

### Soft or Cuddly Toys

- Put your finger nails behind the toy's eyes (if you can) and nose or anything else that could be pulled off. Give it a sharp tug. If it becomes detached it could be swallowed by a small child.
- Toys with long hair are not very suitable for young children as loose hairs might get into their mouths.
- Carefully feel around the toy for any hidden spikes or sharp points.
- Take hold of the fabric either side of any seam. Give it a good pull. If the seams come apart a child might choke on the stuffing.



## Rattles

- Check that you cannot get at the chimes or beads that make the noise. These could be swallowed or may cut a baby.
- Check that there is nothing that could cut a baby or come off and choke it.
- Watch out for ribbons or strings that could choke a baby.

## Toy Cars and Trains

- Check for sharp metal edges. Edges should be rolled, folded over or covered so that they cannot cut a child.
- Give wheels and tyres a good tug to make sure that they will not come off easily. If they do they could be swallowed and choke a child.

## Board Games

- There are no specific standards for board games but many parts of BS EN 71 may apply, for example, ensuring that there is an age warning label about the small pieces that make up the game.

## Pull Along Toys

For children under 3 the cord on the toy must be more than 1.5 mm thick.

- This could stop a child's fingers being cut if the toy gets stuck while a child is pulling it.
- Check that the cord does not have any knots or fastenings that could make a slip knot. This could form a noose and might trip or strangle a child.



## Electrical Toys

- No child's toy should plug straight into the mains electricity supply. Toys for younger children should have batteries, which are well secured so that only an adult can get to them and take them out.

- Always follow the manufacturer's instructions for using batteries. Never let a young child get hold of button batteries. Although they are unlikely to choke a baby, they can do great harm in the stomach.

### Imitation Helmets

- All imitation helmets and protective gear should have a warning label stating 'Warning! This is a toy. Does not provide protection'. If you need a cycle or skateboard helmet ask at a reputable cycle or sports shop.

### Kites

- Check that kite lines are not metal. They could conduct electricity. Kites with cords of more than 2 metres should have warnings stating 'Warning! Do not use near overhead power lines or during thunderstorms.'

### Folding Toys

- Toys like pushchairs or ironing boards that fold could trap fingers. Use a pencil to test whether or not this could happen. Watch out especially for spring-loaded folding mechanisms.
- Check that there is a safety stop or locking device and that it works.

### Toy Boxes

Finally...

Injuries can happen if you leave toys lying around. It is very easy to trip and fall over them. Approximately half of all accidents related to toys are due to falls. This can be avoided by keeping toys in a toy box. This will also help to keep unsuitable toys away from young brothers and sisters.



### Warning

- Always make sure that you keep and read instructions and warnings.
- Always comply with age warning symbols.

## Electronic Toys

There's also a standard for electronic toys, BS EN 50088. You need to be aware of the tests performed in industry to meet the standard and to apply your own tests as you are developing your product.

This is just a brief summary of some of the standards for toys. The full versions of the standards are available to view at many public libraries and universities. A list can be found through the education website.

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