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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 21746-2008

**Safety requirements for the educational equipment - General
principles**

教学仪器设备安全要求 总则

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Foreword

The standard Chapter 4, Chapter 5, Chapter 6, Chapter 7 are mandatory, the remaining provisions are recommended. The Standard Appendix A, Appendix B is an informative annex. The standard proposed by the People's Republic of China Ministry of Education. This standard by the National Standardization Technical Committee Instrument Teaching. This standard was drafted. Ministry of Education teaching instrument Institute, Zhejiang Educational Equipment and work-study program management center. The main drafters of this standard. Wang Jing, Ren Weide, party building Wei, Ma Qiang. Teaching instruments and equipment safety requirements General

1 Scope

GB 21746-2008 is the Chinese national standard on safety requirements for the educational equipment - general principles, in the field of services and company

organization. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 5 May 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 August 2008. Classification: ICS 03.180, CCS Y51. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the safety principles teaching equipment, general requirements for the design, safety signs, brochures and signage requirements, safety Assessment and user requirements. This standard applies to all types of schools teaching equipment in general use, as well as children with indoor outdoor sports equipment and special circumstances, Equipment by the school equipment. Various vocational training institutions and special education teaching instruments and equipment used in schools can refer to use.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard. GB 2893 Safety colors (GB 2893-2001, neq ISO 3864. 1984)

GB/T 2893.1 Graphical symbols - Safety colors and safety signs - Part 1. workplaces and public areas for safety signs set Accounting principles GB 2894 Safety Signs (GB 2894-1996, neq ISO 3864. 1984)

GB 4075 Sealed radioactive sources - General requirements and classification

GB 4208 housing protection (IP Code)

GB 4706 Household and similar electrical appliances - Safety (relevant part) (eqv IEC 60335.1991)

GB 4943 Safety of Information Technology Equipment (GB 4943-2001, eqv IEC 60950.1999)

GB 5083-1999 General production equipment with safety and health

GB 6675-2003 National Safety Technical Code for Toys (idt ISO 8124-1-2000)

GB 7247.1-2001 Safety of laser products - Part 1. Equipment Classification, Requirements and User's Guide (idt IEC 60825-1- 1993)

GB 8408 amusement rides and safety

GB 8702 electromagnetic radiation protection

GB 8898-2001 Audio, video and similar electronic apparatus - Safety requirements (eqv IEC 60965.1998)

GB 11806 Regulations for the Safe Transport of Radioactive Substances

GB/T 13433-1992 product standards on child safety requirements (neq ISO /IEC No. 50-1987) Classification and code of

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Having teaching characteristics, reflecting teaching ideas, instruments and apparatus for use in teaching and training.

Note. The "teaching" can be pre-school, school-age and adult training at all stages.

3.2 Hazardous live parts.

Note. The term hazardous live to see the GB 8898-2001 2.6.10.

3.3 Radioactive material ray excitation light emitting material of the coating.

3.4 Children of non-controlling movement. Passive exercise is divided into four cases. for jumping, sliding, swing equipment, climb member, but includes less than 10mm ~ 36mm gripping member except those.

4.1 General design and manufacturing teaching equipment

4.1.1 Design of teaching equipment, all teaching equipment, devices and components shall meet the safety requirements. When health and safety technical measures When conflict occurs with the equipment performance, it should give priority to health and safety technical requirements, and according to the following hierarchical order to select safety and health indicators.

a) direct health and safety measures. Teaching equipment itself should have essentially health and safety performance, ensure that equipment even if the abnormal situation Under conditions, it will not appear in any danger and harmful effects;

b) indirect health and safety measures. If the direct health and safety technical measures can not be achieved or can not be fully realized, the instrument should be teaching Design stage equipment, the effect of the body design is quite advanced nature of safety and health protection. Safety and health protection measures Design, manufacturing tasks should not be left to the user to bear.

c) prompt safety and health measures. If the indirect and direct health and safety measures can not be achieved or not be fully realized, the description should be to The corresponding parts of the book and the flag is set on the device by way of illustration and other safety equipment used conditions and precautions.

4.1.2 Design of teaching equipment, should ensure that their health and safety in the following ways.

- a) in accordance with the characteristics and user requirements for children or beginners non-professionals to consider safety measures;
- b) teaching equipment design should reflect the principles of ergonomics, teaching equipment to minimize operator caused by body Force, mental and psychological tensions consumption;
- c) select the best design and evaluation of safety and health;
- d) take effective protective measures against harmful factors and the risk factors that may arise;
- e) safety and health requirements stated in the transport, storage, installation, use and maintenance and other technical documents;
- f) Kindergarten Educational toys should be easy to clean and keep clean.

4.1.3 requires protection and safety devices Protection and safety devices should meet the following requirements.

- a) should be under all the conditions are safe, as they have failed or lost, the device automatically shut down immediately;
- b) safety devices should be able to guarantee the internal safety device in case of failure, it can still provide protection for personnel;

4.2 The teaching equipment

4.2.1 Where the use of security personnel and the possible health hazards likely to cause damage to property teaching equipment, should develop safety, Health standards. These devices generally include the following risk factors.

- a) mechanical (high-speed, sharp objects, breakage, cuts, tears, abrasions, etc.);
- b) high temperature (burn or scald);
- c) low temperature;
- d) high pressure (or pressure);
- e) a high voltage;