

## SECTION G — PHYSICS

## G09 EDUCATING; CRYPTOGRAPHY; DISPLAY; ADVERTISING; SEALS

**G09B EDUCATIONAL OR DEMONSTRATION APPLIANCES; APPLIANCES FOR TEACHING, OR COMMUNICATING WITH, THE BLIND, DEAF OR MUTE; MODELS; PLANETARIA; GLOBES; MAPS; DIAGRAMS** (devices for psychotechnics or for testing reaction times A61B 5/16; games, sports, amusements A63; projectors, projector screens G03B)

**Note(s)**

- This subclass covers :
  - simulators regarded as teaching or training devices, which is the case if they give perceptible sensations having a likeness to the sensations a student would experience in reality in response to actions taken by him;
  - models of buildings, installations, or the like.
- This subclass does not cover :
  - simulators which merely demonstrate or illustrate the function of an apparatus or of a system by means involving computing, and therefore cannot be regarded as teaching or training devices. Such simulators are covered by class G06, if no provision exists elsewhere;
  - components of simulators, if identical with real devices or machines, which are covered by the relevant subclasses for these devices or machines and not by class G09.

**Subclass index**

## TEACHING EQUIPMENT IN GENERAL

General principle of operation

manual or mechanical.....1/00, 3/00

electrical.....5/00, 7/00

operating by question and answer.....3/00, 7/00

Simulators.....9/00

## TEACHING EQUIPMENT FOR SPECIFIC PURPOSES

For writing, shorthand, drawing, painting; for typing.....11/00, 13/00

For music; for reading.....15/00, 17/00

Models for scientific or technical training.....23/00, 25/00

Planetaria, globes; maps, diagrams.....27/00, 29/00

Other teaching equipment.....19/00

TEACHING, AND COMMUNICATING WITH, THE BLIND OR DEAF.....21/00

1/00	<b>Manually- or mechanically-operated educational appliances using elements forming or bearing symbols, signs, pictures, or the like which are arranged or adapted to be arranged in one or more particular ways</b> (puzzle-games A63F 9/00; advertising or displaying in general G09F)	1/16	• • the elements each bearing a plurality of different symbols, signs, or combinations of symbols and signs, only one symbol, sign, or combination thereof, of each element to be used at a time
1/02	• and having a support carrying or adapted to carry the elements	1/18	• • • the elements being rotatable
1/04	• • the elements each bearing a single symbol or a single combination of symbols	1/20	• • • • and bearing the symbols on a surface parallel to the axis of rotation
1/06	• • • and being attachable to, or mounted on, the support	1/22	• • • • and bearing the symbols on a surface perpendicular to the axis of rotation
1/08	• • • • by means of magnets	1/24	• • • the elements being in flexible-strip form, e.g. endless bands
1/10	• • • • by means of pins and holes	1/26	• • • the elements being arranged in fan form
1/12	• • • • by means of ring-like securing elements (sheets temporarily attached together by rings or coils B42F 3/00, B42F 5/00)	1/28	• • • the elements being slidable
1/14	• • • • the elements being slidably mounted on the support	1/30	• • wherein the elements are adapted to be arranged in co-operation with the support to form symbols (without special support G09B 1/40)
		1/32	• comprising elements to be used without a special support
		1/34	• • the elements to be placed loosely in adjacent relationship

## G09B

- 1/36 • • the elements being connectible by corresponding projections and recesses
- 1/38 • • the elements being connectible magnetically
- 1/40 • • to form symbols or signs by appropriate arrangement
- 3/00 Manually- or mechanically-operated teaching appliances working with questions and answers** (electrically-operated G09B 7/00; advertising or displaying in general G09F)
- 3/02 • of the type wherein the student is expected to construct an answer to the question which is presented or wherein the machine gives an answer to the question presented by the student
- 3/04 • • of chart form (masks G09B 17/02)
- 3/06 • of the multiple-choice answer type, i.e. where a given question is provided with a series of answers and a choice has to be made
- 3/08 • • of chart form (having one set of answers common to a plurality of questions G09B 3/12)
- 3/10 • • wherein one set of answers is common to a plurality of questions
- 3/12 • • • of chart form
- 5/00 Electrically-operated educational appliances** (working with questions and answers G09B 7/00; simulators G09B 9/00; advertising or displaying in general G09F) [2]
- Note(s)**  
Group G09B 5/08 takes precedence over groups G09B 5/02-G09B 5/06.
- 5/02 • with visual presentation of the material to be studied, e.g. using film strip
- 5/04 • with audible presentation of the material to be studied (reading and recognising printed or written characters G06K 9/00; sound-recording or reproducing G11B)
- 5/06 • with both visual and audible presentation of the material to be studied
- 5/08 • providing for individual presentation of information to a plurality of student stations [2]
- 5/10 • • all student stations being capable of presenting the same information simultaneously (G09B 5/14 takes precedence) [2]
- 5/12 • • different stations being capable of presenting different information simultaneously (G09B 5/14 takes precedence) [2]
- 5/14 • • with provision for individual teacher-student communication [2]
- 7/00 Electrically-operated teaching apparatus or devices working with questions and answers** (mechanically-operated G09B 3/00; computing arrangements G06F)
- 7/02 • of the type wherein the student is expected to construct an answer to the question which is presented or wherein the machine gives an answer to the question presented by the student
- 7/04 • • characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying a further explanation
- 7/06 • of the multiple-choice answer type, i.e. where a given question is provided with a series of answers and a choice has to be made from the answers
- 7/07 • • providing for individual presentation of questions to a plurality of student stations [2]
- 7/073 • • • all student stations being capable of presenting the same questions simultaneously [2]
- 7/077 • • • different stations being capable of presenting different questions simultaneously [2]
- 7/08 • • characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying further information
- 7/10 • • wherein a set of answers is common to a plurality of questions
- 7/12 • • • characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying further information
- 9/00 Simulators for teaching or training purposes** (for the use of weapons F41; computing aspects G06)
- 9/02 • for teaching control of vehicles or other craft
- 9/04 • • for teaching control of land vehicles
- 9/042 • • • providing simulation in a real vehicle (G09B 9/052, G09B 9/058 take precedence) [5]
- 9/048 • • • a model being viewed and manoeuvred from a remote point (G09B 9/052, G09B 9/058 take precedence) [5]
- 9/05 • • • the view from a vehicle being simulated (G09B 9/052, G09B 9/058 take precedence) [5]
- 9/052 • • • characterised by provision for recording or measuring trainee's performance (devices for psychotechnics, e.g. for vehicle drivers, A61B 5/16, A61B 5/18) [5]
- 9/058 • • • for teaching control of cycles or motorcycles [5]
- 9/06 • • for teaching control of ships, boats, or other waterborne vehicles [2]
- 9/08 • • for teaching control of aircraft, e.g. Link trainer
- 9/10 • • • with simulated flight- or engine-generated force being applied to aircraft occupant (G09B 9/28 takes precedence) [5]
- 9/12 • • • Motion systems for aircraft simulators [5]
- 9/14 • • • • controlled by fluid actuated piston or cylinder ram [5]
- 9/16 • • • Ambient or aircraft conditions simulated or indicated by instrument or alarm [5]
- 9/18 • • • • Condition of engine or fuel supply [5]
- 9/20 • • • • Simulation or indication of aircraft attitude [5]
- 9/22 • • • including aircraft sound simulation [5]
- 9/24 • • • including display or recording of simulated flight path [5]
- 9/26 • • • Simulation of radio-navigation [5]
- 9/28 • • • Simulation of stick forces or the like [5]
- 9/30 • • • Simulation of view from aircraft [5]
- 9/32 • • • • by projected image (G09B 9/36 takes precedence) [5]
- 9/34 • • • • by cathode-ray screen display (G09B 9/36 takes precedence) [5]
- 9/36 • • • • Simulation of night or reduced visibility flight [5]
- 9/38 • • • • • Simulation of runway outlining or approach lights [5]
- 9/40 • • • Simulation of airborne radar [5]
- 9/42 • • • Aircraft, aircraft simulator, or means connected thereto, travelling on the ground or water during simulated flight training [5]
- 9/44 • • • providing simulation in a real aircraft flying through the atmosphere without restriction of its path [5]
- 9/46 • • • the aircraft being a helicopter [5]

	<b>Note(s)</b>		
	When classifying in group G09B 9/46, classification is also made in other appropriate subgroups of group G09B 9/08, if of interest.		
9/48	• • • a model being viewed and manoeuvred from a remote point [5]		
9/50	• • • Automatically directing the course of the aircraft [5]		
9/52	• • for teaching control of an outer space vehicle [5]		
9/54	• Simulation of radar (G09B 9/40 takes precedence) [5]		
9/56	• Simulation of sonar [5]		
<b>11/00</b>	<b>Teaching hand-writing, shorthand, drawing, or painting</b>		
11/02	• Finger, hand, or arm supporting devices		
11/04	• Guide sheets or plates; Tracing charts (templets for drawing purposes B43L 13/20)		
11/06	• Devices involving the use of transparent or translucent tracing material, e.g. copy books		
11/08	• Teaching shorthand		
11/10	• Teaching painting		
<b>13/00</b>	<b>Teaching typing</b>		
13/02	• Dummy practice keyboard apparatus (for teaching music G09B 15/08)		
13/04	• Devices used in association with a real typewriter, teleprinter, or the like		
<b>15/00</b>	<b>Teaching music</b> (metronomes G04F 5/02)		
15/02	• Boards or like means for providing an indication of notes		
15/04	• • with sound-emitters		
15/06	• Devices for exercising or strengthening fingers or arms; Devices for holding fingers or arms in a proper position for playing (for teaching typing G09B 13/00; exercising apparatus for developing or strengthening the muscles for physical training A63B 21/00, A63B 23/00)		
15/08	• Practice keyboards (for teaching typing G09B 13/02)		
<b>17/00</b>	<b>Teaching reading</b> (teaching lip-reading G09B 21/06)		
17/02	• Line indicators or other guides or masks		
17/04	• for increasing the rate of reading; Reading rate control		
<b>19/00</b>	<b>Teaching not covered by other main groups of this subclass</b> (teaching or practice apparatus for gun-aiming or gun-laying F41G 3/26)		
19/02	• Counting; Calculating (abacus G06C 1/00)		
19/04	• Speaking (with audible presentation of the material to be studied G09B 5/04)		
19/06	• Foreign languages (with audible presentation of the material to be studied G09B 5/04)		
19/08	• • Printed or written appliances, e.g. textbooks, bilingual letter assemblies, charts		
19/10	• Modelling		
19/12	• Clock-reading		
19/14	• Traffic procedures, e.g. traffic regulations		
19/16	• Control of vehicles or other craft (simulators G09B 9/02)		
19/18	• Book-keeping or economics		
19/20	• Needlework		
19/22	• Games, e.g. card games		
19/24	• Use of tools		
19/26	• Dot-and-dash telegraph codes [2]		
<b>21/00</b>	<b>Teaching, or communicating with, the blind, deaf or mute</b> (audible presentation of material to be studied G09B 5/04; devices or methods for replacing direct visual or auditory perception by another kind of perception A61F 9/08, A61F 11/04; audible indication of meter readings or of colour G01D 7/12; watches for blind persons G04B 25/02; methods or arrangements for reading or recognising printed or written characters G06K 9/00; speech analysis, speech recognition G10L; sound-recording or reproducing, <i>per se</i> G11B) [2, 4]		
21/02	• Devices for Braille writing (typewriters for Braille B41J 3/32)		
21/04	• Devices for conversing with the deaf-blind		
21/06	• Devices for teaching lip-reading		
<b>23/00</b>	<b>Models for scientific, medical, or mathematical purposes, e.g. full-sized device for demonstration purposes</b> (in the nature of toys A63H)		
23/02	• for mathematics (for statics or dynamics G09B 23/08)		
23/04	• • for geometry, trigonometry, projection, or perspective (for surveying G09B 25/06)		
23/06	• for physics		
23/08	• • for statics or dynamics		
23/10	• • • of solid bodies		
23/12	• • • of liquids or gases		
23/14	• • for acoustics		
23/16	• • for science of heat		
23/18	• • for electricity or magnetism		
23/20	• • for atomic physics or nucleonics		
23/22	• • for optics		
23/24	• for chemistry		
23/26	• for molecular structures; for crystallography		
23/28	• for medicine		
23/30	• • Anatomical models (dental articulators A61C 11/00)		
23/32	• • • with moving parts		
23/34	• • • with removable parts		
23/36	• for zoology		
23/38	• for botany		
23/40	• for geology		
<b>25/00</b>	<b>Models for purposes not provided for in group G09B 23/00, e.g. full-sized devices for demonstration purposes</b> (model vehicles, tracks therefor, models in the nature of toys A63H)		
25/02	• of industrial processes; of machinery		
25/04	• of buildings		
25/06	• for surveying; for geography, e.g. relief models (globes G09B 27/00; maps G09B 29/00)		
25/08	• of scenic effects, e.g. trees, rocks, water surfaces (for stage purposes A63J 1/00)		
<b>27/00</b>	<b>Planetaria; Globes</b>		
27/02	• Telluriums; Orreries		
27/04	• Star maps		
27/06	• Celestial globes		
27/08	• Globes (celestial globes G09B 27/06)		
<b>29/00</b>	<b>Maps; Plans; Charts; Diagrams, e.g. route diagram</b> (star maps G09B 27/04; devices for holding or supporting maps A47B 97/02; for computing purposes G06G 1/14, G06G 1/16; display boards G09F)		
29/02	• sectional		
29/04	• • the sections being arranged in the form of a foldable sheet or sheets		
29/06	• of belt form, e.g. endless belt		

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- 29/08 • Hanging maps or the like
- 29/10 • Map spot or co-ordinate position indicators; Map-reading aids (optical projection apparatus G03B)
- 29/12 • Relief maps (relief models G09B 25/06)
- 29/14 • Local-time charts