

CPC**COOPERATIVE PATENT CLASSIFICATION****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

1. 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.
2. This subclass does not cover:
 - simulators which demonstrate, by means involving computing, the function of apparatus or of a system, which 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](#)).

G09B 1/00

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 (puzzle-games [A63F 9/00](#); advertising or displaying in general [G09F](#))

- [G09B 1/02](#) . and having a support carrying or adapted to carry the elements
- [G09B 1/04](#) . . the elements each bearing a single symbol or a single combination of symbols
- [G09B 1/06](#) . . . and being attachable to, or mounted on, the support
- [G09B 1/08](#) by means of magnets
- [G09B 1/10](#) by means of pins and holes
- [G09B 1/12](#) by means of ring-like securing elements (sheets temporarily attached together by rings or coils [B42F 3/00](#), [G09B 5/00](#))
- [G09B 1/14](#) the elements being slidably mounted on the support
- [G09B 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
- [G09B 1/18](#) . . . the elements being rotatable
- [G09B 1/20](#) and bearing the symbols on a surface parallel to the axis of rotation
- [G09B 1/22](#) and bearing the symbols on a surface perpendicular to the axis of rotation
- [G09B 1/24](#) . . . the elements being in flexible strip form, e.g. endless bands
- [G09B 1/26](#) . . . the elements being arranged in fan form
- [G09B 1/28](#) . . . the elements being slidable

- G09B 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](#))
- G09B 1/32 . comprising elements to be used without a special support
- G09B 1/325 . . {the elements comprising interacting electronic components}
- G09B 1/34 . . the elements to be placed loosely in adjacent relationship
- G09B 1/36 . . the elements being connectible by corresponding projections and recesses
- G09B 1/38 . . the elements being connectible magnetically
- G09B 1/40 . . to form symbols or signs by appropriate arrangement

G09B 3/00 **Manually or mechanically operated teaching appliances working with questions and answers** ([electrically-operated G09B 7/00](#); {e.g. [G09B 7/063](#)} [advertising or displaying in general G09F](#))

- G09B 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 a student
- G09B 3/04 . . of chart form ([masks G09B 17/02](#))
- G09B 3/045 . . . {with invisibly printed correct answer; the answer being rendered visible by special optical means, e.g. filters; mirrors}
- G09B 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
- G09B 3/08 . . of chart form ([having one set of answers common to a plurality of questions G09B 3/12](#))
- G09B 3/085 . . . {with invisibly printed correct answer; the answer being rendered visible by special optical means, e.g. filters; mirrors}
- G09B 3/10 . . wherein one set of answers is common to a plurality of questions
- G09B 3/12 . . . of chart form

G09B 5/00 **Electrically-operated educational appliances** ([working with questions and answers G09B 7/00](#); [simulators G09B 9/00](#); [advertising or displaying in general G09F](#))

NOTE

Group [G09B 5/08](#) takes precedence over groups [G09B 5/02](#) to [G09B 5/06](#).

- G09B 5/02 . with visual presentation of the material to be studied, e.g. using film strip
- G09B 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](#))
- G09B 5/06 . with both visual and audible presentation of the material to be studied
- G09B 5/062 . . {Combinations of audio and printed presentations, e.g. magnetically striped cards, talking books, magnetic tapes with printed texts thereon}
- G09B 5/065 . . {Combinations of audio and video presentations, e.g. videotapes, videodiscs, television systems}
- G09B 5/067 . . Combinations of audio and projected visual presentation, e.g. film, slides]
- G09B 5/08 . providing for individual presentation of information to a plurality of student stations
- G09B 5/10 . . all student stations being capable of presenting the same information simultaneously ([G09B 5/14 takes precedence](#))

- G09B 5/12 . . different stations being capable of presenting different information simultaneously ([G09B 5/14 takes precedence](#))
- G09B 5/125 . . . {the stations being mobile}
- G09B 5/14 . . with provision for individual teacher-student communication

- G09B 7/00** **Electrically-operated teaching apparatus or devices working with questions and answers** ([mechanically operated G09B 3/00](#); [computing arrangements G06F](#))
- G09B 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 a student
- G09B 7/04 . . characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying a further explanation
- G09B 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
- G09B 7/063 . . {with hand-placed probe or plug}
- G09B 7/066 . . {with answer indicating cards, blocks}
- G09B 7/07 . . providing for individual presentation of questions to a plurality of student stations
- G09B 7/073 . . . all student stations being capable of presenting the same questions simultaneously
- G09B 7/077 . . . different stations being capable of presenting different questions simultaneously
- G09B 7/08 . . characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying further information
- G09B 7/10 . . wherein a set of answers is common to a plurality of questions
- G09B 7/12 . . . characterised by modifying the teaching programme in response to a wrong answer, e.g. repeating the question, supplying further information

- G09B 9/00** **Simulators for teaching or training purposes** ([for the use of weapons F41](#); [computing aspects G06](#); [protocols for networked simulations H04L 29/06034](#))
- G09B 9/003 . {for military purposes and tactics}
- G09B 9/006 . {for locating or ranging of objects}
- G09B 9/02 . for teaching control of vehicles or other craft
- G09B 9/04 . . for teaching control of land vehicles
- G09B 9/042 . . . providing simulation in a real vehicle ([G09B 9/052](#), [G09B 9/058 take precedence](#))
- G09B 9/048 . . . a model being viewed and manoeuvred from a remote point ([G09B 9/052](#), [G09B 9/058 take precedence](#))
- G09B 9/05 . . . the view from a vehicle being simulated ([G09B 9/052](#), [G09B 9/058 take precedence](#))
- G09B 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](#))
- G09B 9/058 . . . for teaching control of cycles or motorcycles
- G09B 9/06 . . for teaching control of ships, boats, or other waterborne vehicles
- G09B 9/063 . . . {by using visual displays}
- G09B 9/066 . . . {Sailing; Surfing}
- G09B 9/08 . . for teaching control of aircraft, e.g. Link trainer

G09B 9/085	...	{Special purpose teaching, e.g. alighting on water, aerial photography}
G09B 9/10	...	with simulated flight- or engine-generated force being applied to aircraft occupant (G09B 9/28 takes precedence)
G09B 9/12	...	Motion systems for aircraft simulators
G09B 9/14	....	controlled by fluid actuated piston or cylinder ram
G09B 9/16	...	Ambient or aircraft conditions simulated or indicated by instrument or alarm
G09B 9/165	....	{Condition of cabin, cockpit or pilot's accessories}
G09B 9/18	....	Condition of engine or fuel supply
G09B 9/20	....	Simulation or indication of aircraft attitude
G09B 9/203	.....	{for taking-off or landing condition}
G09B 9/206	.....	{for in-flight condition}
G09B 9/22	...	including aircraft sound simulation
G09B 9/24	...	including display or recording of simulated flight path
G09B 9/245	....	{Simulation of compasses, gyroscopes}
G09B 9/26	...	Simulation of radio-navigation
G09B 9/28	...	Simulation of stick forces or the like
G09B 9/30	...	Simulation of view from aircraft

NOTE

When classifying in groups [G09B 9/301](#), [G09B 9/302](#), [G09B 9/304](#), [G09B 9/305](#), classification is also made in other appropriate groups [G09B 9/307](#), [G09B 9/308](#), [G09B 9/32](#), [G09B 9/323](#), [G09B 9/326](#), [G09B 9/34](#), [G09B 9/36](#), [G09B 9/38](#) if of interest

G09B 9/301	....	{by computer-processed or -generated image}
G09B 9/302	.....	{the image being transformed by computer processing, e.g. updating the image to correspond to the changing point of view}
G09B 9/304	....	{by using a film}
G09B 9/305	....	{by viewing with a camera a small-scale model of the terrain}
G09B 9/307	....	{by helmet-mounted projector or display (G09B 9/36 takes precedence; optical parts of head-up displays G02B 27/01)}
G09B 9/308	....	{by LCD, gas plasma display or electroluminescent display}
G09B 9/32	....	by projected image ({ G09B 9/307 ,} G09B 9/36 take precedence)
G09B 9/323	.....	{the projection screen being made of LCD panels (G09B 9/307 takes precedence)}
G09B 9/326	.....	{the image being transformed by optical means}
G09B 9/34	....	by cathode-ray screen display ({ G09B 9/307 ,} G09B 9/36 take precedence)
G09B 9/36	....	Simulation of night or reduced visibility flight
G09B 9/38	.....	Simulation of runway outlining or approach lights
G09B 9/40	...	Simulation of airborne radar
G09B 9/42	...	Aircraft, aircraft simulator or means connected thereto, travelling on the ground or water during simulated flight training

- G09B 9/44 . . . providing simulation in a real aircraft flying through the atmosphere without restriction of its path
- G09B 9/46 . . . the aircraft being a helicopter
- G09B 9/48 . . . a model being viewed and manoeuvred from a remote point
- G09B 9/50 . . . Automatically directing the course of the aircraft
- G09B 9/52 . . for teaching control of an outer space vehicle
- G09B 9/54 . Simulation of radar ([G09B 9/40 takes precedence](#))
- G09B 9/56 . Simulation of sonar

G09B 11/00**Teaching hand-writing, shorthand, drawing, or painting**

- G09B 11/02 . Finger, hand or arm supporting devices
- G09B 11/04 . Guide sheets or plates; Tracing charts ([templates for drawing purposes B43L 13/20](#))
- G09B 11/06 . Devices involving the use of transparent or translucent tracing material, e.g. copy books
- G09B 11/08 . Teaching shorthand
- G09B 11/10 . Teaching painting

G09B 13/00**Teaching typing**

- G09B 13/02 . Dummy practice keyboard apparatus ([for teaching music G09B 15/08](#))
- G09B 13/04 . Devices used in association with a real typewriter, teleprinter, or the like

G09B 15/00**Teaching music ([metronomes G04F 5/02](#))**

- G09B 15/001 . {Boards or like means for providing an indication of chords}
- G09B 15/002 . . {Electrically operated systems}
- G09B 15/003 . . . {with indication of the keys or strings to be played on instruments}
- G09B 15/004 . . {Non-electrically operated systems}
- G09B 15/005 . . . {of the slide type}
- G09B 15/006 {with indication of the keys or strings to be played on instruments}
- G09B 15/007 . . . {using disc-shaped boards}
- G09B 15/008 {with indication of the keys or strings to be played on instruments}
- G09B 15/009 . {Transposing devices}
- G09B 15/02 . Boards or like means for providing an indication of notes
- G09B 15/023 . . {Electrically operated}
- G09B 15/026 . . {Non-electrically operated}
- G09B 15/04 . . with sound emitters
- G09B 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](#))
- G09B 15/08 . Practive keyboards ([for teaching typing G09B 13/02](#))

G09B 17/00**Teaching reading ([teaching lip-reading G09B 21/00](#))**

- G09B 17/003 . {electrically operated apparatus or devices}

G09B 17/006	. . {with audible presentation of the material to be studied (audio and audio-visual teaching apparatus in general G09B 5/04 , G09B 5/06)}
G09B 17/02	. Line indicators or other guides or masks
G09B 17/04	. for increasing the rate of reading; Reading rate control
G09B 19/00	Teaching not covered by other main groups of this subclass (teaching or practice apparatus for gun-aiming or gun-laying F41G 3/26)
G09B 19/0007	. {Signalling}
G09B 19/0015	. {Dancing}
G09B 19/0023	. {Colour matching, recognition, analysis, mixture or the like}
G09B 19/003	. {Repetitive work cycles; Sequence of movements}
G09B 19/0038	. . {Sports}
G09B 19/0046	. {History}
G09B 19/0053	. {Computers, e.g. programming}
G09B 19/0061	. {Geography}
G09B 19/0069	. {Engineering, e.g. mechanical, electrical design (computer engineering G09B 19/0053)}
G09B 19/0076	. {Body hygiene; Dressing; Knot tying}
G09B 19/0084	. . {Dental hygiene}
G09B 19/0092	. {Nutrition}
G09B 19/02	. Counting; Calculating (abacus G06C 1/00)
G09B 19/025	. . {with electrically operated apparatus or devices}
G09B 19/04	. Speaking (with audible presentation of the material to be studied G09B 5/04)
G09B 19/06	. Foreign languages (with audible presentation of material to be studied G09B 5/04)
G09B 19/08	. . Printed or written appliances, e.g. text books, bilingual letter assemblies, charts
G09B 19/10	. Modelling
G09B 19/12	. Clock-reading
G09B 19/14	. Traffic procedures, e.g. traffic regulations
G09B 19/16	. Control of vehicles or other craft (simulators G09B 9/02)
G09B 19/162	. . {Control of ships, boats, or other waterborne vehicles}
G09B 19/165	. . {Control of aircraft}
G09B 19/167	. . {Control of land vehicles}
G09B 19/18	. Book-keeping or economics
G09B 19/20	. Needlework
G09B 19/22	. Games, e.g. card games
G09B 19/24	. Use of tools
G09B 19/26	. Dot-and dash telegraphic codes

G09B 21/00

Teaching, or communicating with, the blind, deaf or mute (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, per se [G11B](#))

- G09B 21/001 . {Teaching or communicating with blind persons ([G09B 21/02](#) to [G09B 21/06](#) take precedence)}
- G09B 21/002 .. {Writing aids for blind persons (devices for Braille writing [G09B 21/02](#))}
- G09B 21/003 .. {using tactile presentation of the information, e.g. Braille displays}
- G09B 21/004 ... {Details of particular tactile cells, e.g. electro-mechanical or mechanical layout}
- G09B 21/005 ... {Details of specially-adapted software to access information, e.g. to browse through hyperlinked information}
- G09B 21/006 .. {using audible presentation of the information}
- G09B 21/007 .. {using both tactile and audible presentation of the information}
- G09B 21/008 .. {using visual presentation of the information for the partially sighted}
- G09B 21/009 . {Teaching or communicating with deaf persons ([G09B 21/04](#) takes precedence; deaf and dumb persons [G09B 21/00](#))}
- G09B 21/02 . Devices for Braille writing (typewriters for Braille [B41J 3/32](#))
- G09B 21/025 .. {wherein one tactile input is associated to a single finger}
- G09B 21/04 . Devices for conversing with the deaf-blind
- G09B 21/06 . Devices for teaching lip-reading

G09B 23/00

Models for scientific, medical, or mathematical purposes, e.g. full-sized devices for demonstration purposes (in the nature of toys [A63H](#))

- G09B 23/02 . for mathematics (for statics or dynamics [G09B 23/08](#))
- G09B 23/04 .. for geometry, trigonometry, projection or perspective (for surveying [G09B 25/06](#))
- G09B 23/06 . for physics
- G09B 23/08 .. for statics or dynamics
- G09B 23/10 ... of solid bodies
- G09B 23/12 ... of liquids or gases
- G09B 23/14 .. for acoustics
- G09B 23/16 .. for science of heat
- G09B 23/18 .. for electricity or magnetism
- G09B 23/181 ... {for electric and magnetic fields; for voltages; for currents}
- G09B 23/182 ... {for components}
- G09B 23/183 ... {for circuits}
- G09B 23/185 {for building block systems}
- G09B 23/186 {for digital electronics; for computers, e.g. microprocessors}
- G09B 23/187 ... {for measuring instruments}
- G09B 23/188 ... {for motors; for generators; for power supplies; for power distribution}
- G09B 23/20 .. for atomic physics or nucleonics

G09B 23/22	. . for optics
G09B 23/24	. for chemistry
G09B 23/26	. for molecular structures; for crystallography
G09B 23/28	. for medicine
G09B 23/281	. . {for pregnancy, birth or obstetrics (G09B 23/286 takes precedence)}
G09B 23/283	. . {for dentistry or oral hygiene (G09B 23/286 takes precedence)}
G09B 23/285	. . {for injections, endoscopy, bronchoscopy, sigmoidoscopy, insertion of contraceptive devices or enemas}
G09B 23/286	. . {for scanning or photography techniques, e.g. X-rays, ultrasonics}
G09B 23/288	. . {for artificial respiration or heart massage}
G09B 23/30	. . Anatomical models {(G09B 23/281 to G09B 23/288 take precedence)}
G09B 23/303	. . . {specially adapted to simulate circulation of bodily fluids}
G09B 23/306	. . . {comprising real biological tissue}
G09B 23/32	. . . with moving parts
G09B 23/34	. . . with removable parts
G09B 23/36	. for zoology
G09B 23/38	. for botany
G09B 23/40	. for geology
G09B 25/00	Models for purposes not provided for in G09B 23/00, e.g. full-sized devices for demonstration purposes (model vehicles, tracks therefor, models in the nature of toys A63H)
G09B 25/02	. of industrial processes; of machinery
G09B 25/025	. . {hydraulic; pneumatic}
G09B 25/04	. of buildings
G09B 25/06	. for surveying; for geography, e.g. relief models (globes G09B 27/00 ; maps G09B 29/00)
G09B 25/08	. of scenic effects, e.g. trees, rocks, water surfaces (for stage purposes A63J 1/00)
G09B 27/00	Planetaria; Globes
G09B 27/02	. Tellurions; Orreries
G09B 27/04	. Star maps
G09B 27/06	. Celestial globes
G09B 27/08	. Globes (celestial globes G09B 27/06)
G09B 29/00	Maps; Plans; Charts; Diagrams, e.g. route diagram (star maps G09B 27/04; devices for holding or supporting maps A47B 97/02; for computing purposes G06G 1/14, G09B 1/16; display boards G09F)
G09B 29/001	. {Planning boards}
G09B 29/002	. . {using magnetic elements}
G09B 29/003	. {Maps}

- G09B 29/004 . . {Map manufacture or repair; Tear or ink or water resistant maps; Long-life maps (printing processes for maps [B41M 3/02](#); by permanently attaching map sections to sheets [B42B 7/00](#))}
- G09B 29/005 . . {Map projections or methods associated specifically therewith}
- G09B 29/006 . . {Representation of non-cartographic information on maps, e.g. population distribution, wind direction, radiation levels, air and sea routes}
- G09B 29/007 . . . {using computer methods}
- G09B 29/008 . . . {Touring maps or guides to public transport networks}
- G09B 29/02 . sectional
- G09B 29/04 . . the sections being arranged in the form of a foldable sheet or sheets
- G09B 29/06 . of belt form, e.g. endless belt
- G09B 29/08 . Hanging maps or the like
- G09B 29/10 . Map spot or coordinate position indicators; Map reading aids ([optical projection apparatus per se G03B](#))
- G09B 29/102 . . {using electrical means}
- G09B 29/104 . . . {involving the optical projection of slides, microfilm or the like}
- G09B 29/106 . . {using electronic means}
- G09B 29/108 . . . {involving the optical projection of slides, microfilm or the like}
- G09B 29/12 . Relief maps ([relief models G09B 25/06](#))
- G09B 29/14 . Local time charts