

Country=Australia SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	89	1.6	90	2.0	88	2.0
E06	No	PLACEMENT OF THIRD CHARGE	32	2.3	33	2.9	30	3.0
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	39	2.5	43	3.4	32	3.5
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	38	5.7	46	6.8	16	5.6
F08	No	BULBS USING LEAST POWER	47	5.1	50	6.0	39	7.9
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	9	2.6	11	3.4	6	1.9
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	11	3.2	13	4.3	6	4.2
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	47	4.4	47	5.7	48	7.2
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	38	3.8	38	5.3	37	8.0
G17	Yes	DIRECTION OF FORCE DUE CURRENT	38	4.7	39	5.6	37	9.5
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	19	4.4	23	7.0	10	4.1
H06	Yes	INDUCED emf IN ROTATING COIL	22	5.4	28	7.1	13	5.7
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	25	6.3	29	8.0	18	7.8
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	34	6.8	32	6.4	36	16.8
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	31	8.1	29	6.0	34	15.9
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	17	4.8	23	6.9	9	5.3

REL: Release Status (Yes= Item in Released Item Set)

Country=Australia SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	56	2.0	58	2.3	52	3.7
F05	No	HEAT TRANSFER	64	4.9	67	5.4	58	8.3
F12	No	TEMPERATURE OF A SYSTEM	9	2.7	10	3.6	7	4.0
G02	Yes	VOLUME OF STEAM	80	3.4	88	3.5	64	6.8
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	60	4.8	65	6.8	53	7.4
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	9	3.0	9	3.3	8	5.8
H02	Yes	LIQUID EVAPORATION	46	7.1	45	7.3	48	12.2
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	40	6.8	43	6.6	34	11.5
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	2	1.3	2	1.2	3	2.8

REL: Release Status (Yes= Item in Released Item Set)

Country=Australia SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	70	2.7	79	3.2	54	3.9
E05	No	DEPTH OF WELL	87	1.5	89	2.0	84	2.4
F02	No	FORCE ON CONNECTED SPRINGS	16	3.8	18	4.8	9	2.5
F04	No	SPEED OF AIRCRAFT	47	6.1	47	6.4	46	10.9
F10	No	SPEED-TIME GRAPHS OF BALL	27	4.2	29	4.7	20	5.6
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	43	5.0	51	5.7	24	6.1
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	2	1.0	1	0.8	5	2.8
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	28	4.8	24	5.5	35	10.6
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	14	3.6	18	5.1	7	4.3
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	27	4.9	27	5.6	28	7.9
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	36	5.2	39	7.7	30	8.4
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	31	4.7	35	7.1	22	3.3
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	3	1.6	3	2.0	3	2.3
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	25	5.2	27	5.8	21	7.4
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	41	8.3	38	6.9	45	15.4
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	31	5.2	40	6.6	17	7.3

REL: Release Status (Yes= Item in Released Item Set)

Country=Australia SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	70	3.2	76	3.0	60	4.7
E07	No	BETA RADIATION OUTPUT FROM DISCS	44	2.4	46	3.2	41	4.6
F03	No	RUTHERFORD EXPERIMENT	59	4.5	58	5.7	59	7.0
F07	No	PHOTOELECTRIC EFFECT	52	5.7	54	6.2	44	10.8
F09	No	NUCLEAR CHANGE IN AN ATOM	30	4.9	32	6.1	25	6.8
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	11	2.4	9	3.0	16	5.0
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	61	4.7	68	5.7	49	7.2
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	34	6.7	34	9.3	34	8.2
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	39	5.3	46	7.4	26	8.3
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	8	3.2	7	3.2	11	6.5
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	28	4.8	33	6.0	21	6.5
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	36	5.3	34	6.2	38	12.4
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	31	5.5	35	7.3	25	8.3
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	11	3.2	16	5.0	5	3.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Australia SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	76	2.2	75	3.0	76	2.5
E10	No	LIGHT PASSING THROUGH LENS	41	2.9	47	3.7	29	4.5
F01	No	FRAUNHOFER LINES	47	5.7	44	5.7	57	10.9
F11	No	WAVELENGTHS OF RADIATION TYPES	39	5.4	35	6.4	49	8.1
F13	No	WAVELENGTH IN SHALLOW WATER	83	3.5	82	4.2	85	5.8
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	42	4.9	42	6.2	44	8.0
G13	Yes	DOPPLER EFFECT AND MOVING CAR	53	4.5	58	5.5	45	10.7
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	51	5.7	64	7.1	30	9.0
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	46	6.8	49	6.9	42	15.2
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	62	6.4	60	6.6	65	11.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Austria SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	77	2.5	82	2.7	73	3.9
E06	No	PLACEMENT OF THIRD CHARGE	26	2.2	28	3.1	25	2.7
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	26	2.0	38	3.4	19	2.3
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	20	3.8	20	4.7	20	5.3
F08	No	BULBS USING LEAST POWER	46	4.0	52	6.3	42	5.1
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	3	1.3	6	2.8	1	0.8
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	1	0.7	2	1.9	.	.
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	27	6.0	26	5.9	28	8.7
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	37	5.2	42	7.4	35	6.4
G17	Yes	DIRECTION OF FORCE DUE CURRENT	24	6.2	31	6.4	22	9.2
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	9	3.0	18	5.2	4	3.4
H06	Yes	INDUCED emf IN ROTATING COIL	32	3.7	27	5.1	37	5.6
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	11	2.7	14	4.0	9	3.5
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	17	3.4	21	4.7	14	4.6
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	3	1.4	4	1.9	3	2.0
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	6	2.0	13	4.6	0	0.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Austria SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	32	2.4	39	3.8	27	3.1
F05	No	HEAT TRANSFER	62	4.6	78	5.1	50	5.6
F12	No	TEMPERATURE OF A SYSTEM	6	2.9	6	2.8	7	4.3
G02	Yes	VOLUME OF STEAM	40	4.8	51	6.8	34	6.2
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	48	5.9	49	6.2	49	8.2
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	12	2.7	19	4.4	10	3.4
H02	Yes	LIQUID EVAPORATION	40	4.7	48	7.1	34	5.1
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	18	3.2	28	4.9	11	3.2
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	17	3.2	27	4.9	9	2.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Austria SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	56	2.4	74	3.5	45	3.2
E05	No	DEPTH OF WELL	59	2.7	64	3.5	56	3.6
F02	No	FORCE ON CONNECTED SPRINGS	14	3.1	14	4.3	14	4.0
F04	No	SPEED OF AIRCRAFT	18	3.1	22	4.9	16	3.7
F10	No	SPEED-TIME GRAPHS OF BALL	42	3.8	49	6.7	38	4.5
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	9	2.3	11	3.6	7	3.6
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	7	2.3	11	4.4	5	2.7
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	17	3.3	21	5.8	14	3.9
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	22	6.4	22	5.7	23	9.2
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	5	1.4	2	1.4	7	2.2
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	4	1.5	9	3.7	2	1.3
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	4	2.4	4	1.8	4	3.4
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	7	2.2	9	3.8	7	2.7
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	32	4.3	28	6.2	36	5.2
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	24	4.0	31	6.6	19	4.6
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	18	3.1	32	6.1	9	2.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Austria SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	60	3.0	66	3.7	56	3.6
E07	No	BETA RADIATION OUTPUT FROM DISCS	45	1.9	51	3.6	42	2.4
F03	No	RUTHERFORD EXPERIMENT	29	3.2	27	5.8	29	4.1
F07	No	PHOTOELECTRIC EFFECT	42	4.4	40	6.6	44	5.6
F09	No	NUCLEAR CHANGE IN AN ATOM	18	2.7	19	4.6	17	3.4
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	4	2.5	3	1.8	5	3.9
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	64	5.7	73	4.9	60	8.1
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	23	6.2	15	5.1	26	8.9
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	9	1.9	19	5.1	4	1.4
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	5	1.5	11	3.7	2	1.1
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	28	3.8	25	6.2	31	5.2
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	32	3.6	38	6.2	29	4.2
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	10	2.4	16	4.8	5	2.2
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	13	2.6	23	5.3	6	1.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Austria SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	83	2.1	87	2.4	79	2.8
E10	No	LIGHT PASSING THROUGH LENS	30	2.7	43	3.7	21	3.5
F01	No	FRAUNHOFER LINES	51	4.1	54	7.0	49	5.1
F11	No	WAVELENGTHS OF RADIATION TYPES	29	3.6	33	6.2	27	4.6
F13	No	WAVELENGTH IN SHALLOW WATER	53	4.1	59	6.8	50	4.5
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	29	4.2	17	4.6	34	6.1
G13	Yes	DOPPLER EFFECT AND MOVING CAR	51	5.5	66	6.0	44	7.2
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	14	3.2	22	4.9	8	3.5
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	5	1.6	9	3.4	2	1.3
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	5	2.0	10	3.4	2	1.5
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	37	4.7	54	6.9	24	4.7

REL: Release Status (Yes= Item in Released Item Set)

Country=Canada SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	87	1.3	89	1.2	84	1.7
E06	No	PLACEMENT OF THIRD CHARGE	40	1.6	40	1.9	41	3.2
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	32	1.8	34	2.1	29	2.7
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	15	2.0	16	2.7	12	2.9
F08	No	BULBS USING LEAST POWER	46	3.6	50	5.7	40	7.6
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	16	3.1	21	4.2	9	2.6
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	3	1.5	5	2.2	1	0.5
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	27	2.5	25	3.6	31	6.2
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	33	2.8	31	4.0	36	5.9
G17	Yes	DIRECTION OF FORCE DUE CURRENT	26	2.8	30	4.3	19	3.8
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	4	0.9	4	1.1	3	1.5
H06	Yes	INDUCED emf IN ROTATING COIL	32	4.8	39	4.6	25	5.8
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	17	2.1	20	3.4	13	3.0
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	30	2.6	35	3.9	25	3.8
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	11	2.4	13	2.8	9	3.6
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	11	2.0	15	3.1	8	3.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Canada SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	53	1.2	51	2.1	57	2.9
F05	No	HEAT TRANSFER	50	4.6	62	3.9	32	5.4
F12	No	TEMPERATURE OF A SYSTEM	12	2.9	17	4.5	5	1.9
G02	Yes	VOLUME OF STEAM	73	3.0	77	3.9	69	6.6
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	45	3.9	48	4.5	40	5.8
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	9	1.5	10	2.2	6	2.0
H02	Yes	LIQUID EVAPORATION	43	3.7	52	5.2	34	4.9
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	37	3.1	41	4.2	32	5.5
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	8	3.0	9	3.4	8	4.8

REL: Release Status (Yes= Item in Released Item Set)

Country=Canada SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	60	1.8	70	3.3	48	2.2
E05	No	DEPTH OF WELL	76	1.3	79	1.9	72	3.3
F02	No	FORCE ON CONNECTED SPRINGS	9	1.7	11	2.3	6	1.9
F04	No	SPEED OF AIRCRAFT	50	2.8	54	4.2	45	4.0
F10	No	SPEED-TIME GRAPHS OF BALL	24	2.6	25	3.2	23	5.2
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	19	3.8	25	5.9	12	2.8
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	4	1.8	3	2.3	5	2.3
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	20	2.1	22	2.8	17	3.7
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	27	3.1	22	3.4	35	6.2
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	21	2.7	18	3.8	26	4.6
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	33	2.7	36	4.3	28	4.5
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	16	2.6	17	2.7	15	4.6
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	11	2.2	13	3.6	7	2.4
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	40	4.9	50	4.4	31	6.6
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	29	2.7	38	3.8	21	3.9
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	27	2.5	37	3.7	17	3.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Canada SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	58	2.0	64	2.5	50	3.8
E07	No	BETA RADIATION OUTPUT FROM DISCS	42	1.7	46	2.8	38	2.5
F03	No	RUTHERFORD EXPERIMENT	44	3.4	48	4.2	38	6.8
F07	No	PHOTOELECTRIC EFFECT	65	2.4	66	3.9	63	3.4
F09	No	NUCLEAR CHANGE IN AN ATOM	22	5.3	20	3.5	26	11.7
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	5	1.4	7	2.0	2	1.1
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	57	3.5	64	3.5	46	6.1
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	22	2.6	21	2.6	22	5.0
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	26	2.9	30	4.0	19	4.7
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	12	2.6	13	3.7	10	4.8
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	30	2.5	31	3.8	28	4.3
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	47	3.5	51	4.7	43	5.9
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	33	4.4	42	4.4	24	5.2
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	9	2.2	15	3.5	4	1.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Canada SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	69	1.8	68	2.8	72	2.0
E10	No	LIGHT PASSING THROUGH LENS	46	1.5	49	1.8	41	3.3
F01	No	FRAUNHOFER LINES	38	4.1	42	4.6	34	8.2
F11	No	WAVELENGTHS OF RADIATION TYPES	28	2.9	33	4.4	20	3.8
F13	No	WAVELENGTH IN SHALLOW WATER	73	3.3	73	3.9	73	7.6
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	42	3.6	39	3.9	46	6.3
G13	Yes	DOPPLER EFFECT AND MOVING CAR	22	2.8	20	2.6	26	6.5
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	29	3.6	34	3.8	23	6.7
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	24	3.0	25	3.8	22	5.5
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	16	2.6	23	3.5	9	3.3
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	48	5.1	50	5.0	45	6.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Cyprus SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	84	1.6	83	2.2	84	2.5
E06	No	PLACEMENT OF THIRD CHARGE	45	2.4	45	2.8	45	3.9
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	35	2.0	36	2.8	34	3.4
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	19	3.5	27	5.7	6	3.6
F08	No	BULBS USING LEAST POWER	41	4.9	35	6.2	53	10.0
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	14	3.6	17	5.6	9	4.6
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	15	3.4	17	4.2	12	4.3
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	30	4.7	30	6.7	31	7.3
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	30	5.2	29	6.5	30	9.2
G17	Yes	DIRECTION OF FORCE DUE CURRENT	39	5.0	42	5.7	40	10.5
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	29	5.1	37	6.6	14	5.6
H06	Yes	INDUCED emf IN ROTATING COIL	25	4.3	24	5.5	26	7.1
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	24	4.3	27	7.9	19	6.4
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	27	4.0	34	6.3	15	5.9
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	21	3.8	19	5.1	24	8.1
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	16	4.4	16	6.6	16	6.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Cyprus SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	43	2.8	43	2.9	41	4.7
F05	No	HEAT TRANSFER	53	4.6	61	7.5	39	5.8
F12	No	TEMPERATURE OF A SYSTEM	17	4.9	22	6.5	12	5.8
G02	Yes	VOLUME OF STEAM	54	4.5	57	4.7	51	8.5
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	33	6.4	39	8.8	25	8.4
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	14	4.3	11	4.3	17	7.3
H02	Yes	LIQUID EVAPORATION	42	5.1	49	7.4	29	6.5
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	55	3.8	57	5.0	53	11.0
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	13	3.8	12	4.5	16	5.6

REL: Release Status (Yes= Item in Released Item Set)

Country=Cyprus SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	61	2.2	66	2.3	52	5.8
E05	No	DEPTH OF WELL	85	2.1	88	3.1	82	2.8
F02	No	FORCE ON CONNECTED SPRINGS	19	3.3	24	5.5	11	5.7
F04	No	SPEED OF AIRCRAFT	69	5.1	68	5.0	72	9.8
F10	No	SPEED-TIME GRAPHS OF BALL	33	5.6	34	7.1	33	7.8
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	59	5.0	64	6.9	54	7.4
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	6	2.6	7	3.4	4	3.6
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	26	6.4	31	8.6	15	6.3
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	48	3.8	51	5.6	45	8.5
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	51	4.3	56	7.0	40	8.4
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	44	6.0	45	8.5	39	10.3
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	10	3.1	17	4.6	.	.
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	8	2.9	8	3.0	6	4.4
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	43	5.7	54	7.0	27	6.5
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	41	5.6	47	6.3	33	7.7
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	46	5.8	53	7.4	37	7.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Cyprus SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	42	2.6	48	3.3	34	3.9
E07	No	BETA RADIATION OUTPUT FROM DISCS	38	1.7	40	3.0	33	3.8
F03	No	RUTHERFORD EXPERIMENT	44	4.3	49	5.4	43	8.0
F07	No	PHOTOELECTRIC EFFECT	48	4.3	48	4.8	51	7.0
F09	No	NUCLEAR CHANGE IN AN ATOM	32	3.8	31	4.0	35	7.7
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	8	3.4	12	5.5	2	2.0
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	29	4.8	34	7.5	17	8.1
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	40	4.2	42	4.9	35	9.7
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	6	1.2	7	2.3	5	3.5
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	7	2.4	9	4.2	5	4.0
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	32	3.7	32	5.4	32	7.9
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	25	4.0	24	5.0	29	8.9
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	9	2.4	9	3.9	8	5.2
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	12	3.5	13	3.6	11	6.0

REL: Release Status (Yes= Item in Released Item Set)

Country=Cyprus SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	67	2.8	68	3.1	65	4.2
E10	No	LIGHT PASSING THROUGH LENS	44	2.2	48	3.8	38	4.0
F01	No	FRAUNHOFER LINES	48	6.4	50	7.1	48	9.1
F11	No	WAVELENGTHS OF RADIATION TYPES	39	4.7	40	7.5	41	6.9
F13	No	WAVELENGTH IN SHALLOW WATER	74	5.1	72	5.6	79	7.2
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	47	6.2	53	7.3	44	8.7
G13	Yes	DOPPLER EFFECT AND MOVING CAR	68	5.1	66	6.2	71	8.7
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	42	5.1	53	7.3	27	6.7
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	45	4.9	54	6.3	32	8.3
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	18	4.4	18	6.2	19	6.7
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	47	5.1	54	7.9	37	9.3

REL: Release Status (Yes= Item in Released Item Set)

Country=Czech Republic SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	86	1.0	94	1.4	81	1.3
E06	No	PLACEMENT OF THIRD CHARGE	32	2.1	35	3.5	29	2.2
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	32	1.6	36	2.6	29	1.6
F08	No	BULBS USING LEAST POWER	42	4.5	53	5.8	36	4.7
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	7	1.8	9	3.3	6	1.7
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	2	1.1	6	2.5	1	0.6
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	27	3.9	35	5.0	21	4.7
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	32	2.2	41	4.0	26	3.3
G17	Yes	DIRECTION OF FORCE DUE CURRENT	23	3.4	23	4.4	23	3.8
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	2	1.1	4	2.2	1	0.9
H06	Yes	INDUCED emf IN ROTATING COIL	30	2.7	36	5.4	26	3.7
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	12	2.2	16	4.4	8	2.0
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	17	3.2	29	5.6	8	2.6
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	13	2.7	19	5.0	8	2.2
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	6	1.8	10	3.4	3	1.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Czech Republic SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	45	2.2	47	2.8	44	2.9
F05	No	HEAT TRANSFER	80	3.0	80	4.4	80	3.6
F12	No	TEMPERATURE OF A SYSTEM	13	3.0	26	5.4	6	2.0
G02	Yes	VOLUME OF STEAM	39	3.0	49	4.5	31	3.9
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	29	3.5	33	4.3	27	4.5
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	4	1.2	5	2.0	3	1.3
H02	Yes	LIQUID EVAPORATION	61	3.5	62	5.1	61	4.0
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	29	4.2	44	6.1	20	4.4
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	8	1.8	15	3.2	4	1.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Czech Republic SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	62	1.8	78	2.8	52	2.1
E05	No	DEPTH OF WELL	79	1.6	84	2.7	76	2.0
F02	No	FORCE ON CONNECTED SPRINGS	16	3.9	23	5.5	12	6.8
F04	No	SPEED OF AIRCRAFT	37	4.5	50	5.9	31	5.2
F10	No	SPEED-TIME GRAPHS OF BALL	31	3.9	26	6.0	34	3.8
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	31	4.8	53	6.9	19	3.6
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	7	2.2	13	4.3	4	1.9
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	33	5.1	42	6.9	27	4.8
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	35	3.0	35	6.9	35	4.8
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	8	4.3	8	4.9	9	4.1
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	13	2.3	20	4.3	8	2.0
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	4	1.5	8	3.5	1	0.9
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	3	1.3	5	2.4	1	1.1
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	43	4.1	47	5.9	40	4.2
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	21	2.8	32	5.6	14	2.9
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	17	2.8	30	4.5	9	2.8

REL: Release Status (Yes= Item in Released Item Set)

Country=Czech Republic SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	41	2.5	52	3.1	34	3.3
E07	No	BETA RADIATION OUTPUT FROM DISCS	39	1.7	49	3.0	33	1.8
F03	No	RUTHERFORD EXPERIMENT	31	4.6	45	7.1	24	4.5
F07	No	PHOTOELECTRIC EFFECT	71	3.0	78	4.0	68	4.2
F09	No	NUCLEAR CHANGE IN AN ATOM	27	4.9	24	4.9	28	7.1
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	7	2.1	18	4.9	1	0.7
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	39	3.6	44	6.6	35	5.7
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	26	3.1	35	5.4	18	2.8
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	11	2.6	17	4.4	7	2.6
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	1	0.8	2	1.6	1	0.6
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	41	2.7	46	5.0	37	3.9
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	53	3.4	62	5.4	48	4.9
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	24	3.2	34	5.5	18	2.6
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	14	2.7	24	6.4	8	2.7

REL: Release Status (Yes= Item in Released Item Set)

Country=Czech Republic SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	75	2.0	77	2.7	73	2.2
E10	No	LIGHT PASSING THROUGH LENS	30	2.2	44	3.2	21	2.4
F01	No	FRAUNHOFER LINES	39	3.4	35	5.4	42	5.9
F11	No	WAVELENGTHS OF RADIATION TYPES	36	4.4	51	7.2	27	4.1
F13	No	WAVELENGTH IN SHALLOW WATER	47	4.3	55	5.5	42	5.1
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	34	4.0	43	6.2	27	4.3
G13	Yes	DOPPLER EFFECT AND MOVING CAR	4	1.4	5	2.2	2	1.2
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	19	3.3	36	6.1	8	2.2
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	12	2.7	23	5.5	5	1.7
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	8	1.6	16	3.5	2	1.0
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	39	3.8	58	4.9	26	4.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Denmark SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	91	1.3	92	1.5	88	3.2
E06	No	PLACEMENT OF THIRD CHARGE	27	2.1	29	2.5	19	4.3
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	45	2.6	46	3.0	42	4.5
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	32	4.3	34	5.7	27	8.5
F08	No	BULBS USING LEAST POWER	48	4.3	46	5.7	53	11.4
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	33	4.6	37	5.3	16	6.3
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	3	1.1	4	1.7	.	.
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	40	4.1	39	4.5	47	9.9
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	23	3.3	21	3.8	27	6.9
G17	Yes	DIRECTION OF FORCE DUE CURRENT	27	3.8	24	3.7	47	10.7
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	3	1.4	4	1.8	.	.
H06	Yes	INDUCED emf IN ROTATING COIL	30	3.5	32	3.9	16	7.0
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	41	4.8	42	4.7	36	11.4
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	45	3.7	51	4.7	26	8.9
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	28	3.7	25	4.6	34	9.5
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	20	3.9	21	4.7	18	8.3

REL: Release Status (Yes= Item in Released Item Set)

Country=Denmark SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	38	2.2	37	2.5	40	4.2
F05	No	HEAT TRANSFER	75	4.5	81	5.6	54	11.2
F12	No	TEMPERATURE OF A SYSTEM	22	3.4	27	4.5	8	4.3
G02	Yes	VOLUME OF STEAM	79	3.2	81	3.7	71	7.7
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	34	4.4	33	4.2	31	10.5
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	12	3.1	13	3.4	4	3.8
H02	Yes	LIQUID EVAPORATION	67	3.7	70	4.4	57	8.8
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	53	4.1	56	5.3	40	8.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Denmark SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	81	1.8	85	1.6	65	5.7
E05	No	DEPTH OF WELL	82	1.9	84	2.3	76	4.1
F02	No	FORCE ON CONNECTED SPRINGS	29	3.9	34	4.9	10	4.6
F04	No	SPEED OF AIRCRAFT	50	5.1	50	5.9	44	10.7
F10	No	SPEED-TIME GRAPHS OF BALL	43	4.2	45	5.0	35	10.4
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	30	4.5	33	5.0	11	5.9
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	6	1.9	8	2.7	2	1.9
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	41	4.2	42	4.1	35	13.6
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	48	4.1	54	4.7	26	8.5
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	23	3.7	22	3.9	30	10.8
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	42	3.5	42	4.0	40	10.1
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	23	3.8	25	4.6	14	5.5
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	7	1.9	8	2.7	6	4.6
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	34	4.1	33	5.3	38	7.2
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	38	4.2	42	4.3	18	6.6
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	51	4.6	54	4.7	38	10.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Denmark SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	85	1.3	86	1.4	79	4.0
E07	No	BETA RADIATION OUTPUT FROM DISCS	43	2.3	43	2.5	42	5.0
F03	No	RUTHERFORD EXPERIMENT	42	4.4	47	5.1	20	7.7
F09	No	NUCLEAR CHANGE IN AN ATOM	47	4.7	47	5.6	41	10.8
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	19	3.5	21	4.7	14	6.5
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	83	3.0	85	3.0	73	9.5
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	23	3.6	21	3.4	32	12.7
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	42	3.4	43	4.0	37	8.7
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	7	2.2	5	1.8	16	7.9
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	61	2.9	63	4.1	58	8.7
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	38	4.5	36	4.1	42	11.5
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	26	4.1	23	4.2	33	8.9
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	16	3.2	20	3.8	2	2.0

REL: Release Status (Yes= Item in Released Item Set)

Country=Denmark SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	83	1.9	84	2.4	80	4.0
E10	No	LIGHT PASSING THROUGH LENS	59	2.0	62	2.5	48	5.5
F01	No	FRAUNHOFER LINES	42	4.8	45	5.5	34	11.4
F11	No	WAVELENGTHS OF RADIATION TYPES	53	4.7	56	5.6	40	11.8
F13	No	WAVELENGTH IN SHALLOW WATER	65	5.7	62	6.0	68	11.2
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	32	3.8	33	4.3	29	6.6
G13	Yes	DOPPLER EFFECT AND MOVING CAR	41	3.6	44	4.0	22	7.9
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	27	3.9	30	4.5	17	6.6
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	38	4.6	45	4.9	12	5.7
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	33	4.3	34	4.8	25	9.4
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	51	4.5	54	4.7	35	10.3

REL: Release Status (Yes= Item in Released Item Set)

Country=France SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	86	1.2	88	1.4	83	2.3
E06	No	PLACEMENT OF THIRD CHARGE	31	1.6	31	2.2	31	2.4
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	28	1.6	29	2.1	26	2.5
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	20	3.2	21	4.0	16	4.1
F08	No	BULBS USING LEAST POWER	48	3.6	44	4.6	57	4.0
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	7	2.2	7	2.5	8	2.9
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	14	2.6	12	3.0	16	3.7
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	47	4.3	50	5.3	39	6.1
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	50	3.6	48	4.2	54	6.0
G17	Yes	DIRECTION OF FORCE DUE CURRENT	21	3.2	23	4.1	17	4.5
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	3	1.0	3	0.8	3	2.5
H06	Yes	INDUCED emf IN ROTATING COIL	25	2.5	27	3.4	22	3.3
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	54	4.4	55	4.8	52	5.6
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	26	3.1	30	4.4	22	3.8
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	23	2.9	23	3.3	23	4.6
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	9	2.5	8	2.7	10	3.8

REL: Release Status (Yes= Item in Released Item Set)

Country=France SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	51	1.5	55	2.0	46	2.7
F05	No	HEAT TRANSFER	65	3.6	67	4.6	62	5.7
F12	No	TEMPERATURE OF A SYSTEM	1	0.6	1	0.9	1	0.7
G02	Yes	VOLUME OF STEAM	50	3.0	54	3.5	40	6.6
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	17	2.2	17	2.9	18	4.0
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	9	1.4	8	1.9	10	3.9
H02	Yes	LIQUID EVAPORATION	49	2.8	48	5.5	50	4.1
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	46	3.5	51	5.5	41	4.3
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	17	3.5	14	4.4	20	5.4

REL: Release Status (Yes= Item in Released Item Set)

Country=France SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	60	2.1	67	2.2	47	3.7
E05	No	DEPTH OF WELL	66	2.1	66	2.5	68	2.9
F02	No	FORCE ON CONNECTED SPRINGS	12	2.2	17	2.7	5	2.2
F04	No	SPEED OF AIRCRAFT	47	3.7	45	4.3	49	5.8
F10	No	SPEED-TIME GRAPHS OF BALL	42	3.8	41	4.6	46	6.1
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	21	2.7	22	2.7	20	5.0
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	3	0.9	4	1.3	0	0.4
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	18	3.0	19	3.8	18	3.9
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	47	4.9	51	5.8	40	7.7
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	14	2.2	13	2.8	14	4.1
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	20	2.9	23	3.9	14	3.9
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	17	2.2	19	2.9	14	4.0
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	15	2.5	20	3.7	6	2.6
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	43	3.7	37	4.9	51	5.5
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	17	2.3	20	4.4	14	2.6
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	28	2.4	30	4.4	25	6.0

REL: Release Status (Yes= Item in Released Item Set)

Country=France SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	46	2.6	50	3.0	41	3.2
E07	No	BETA RADIATION OUTPUT FROM DISCS	44	1.2	47	1.8	41	2.3
F03	No	RUTHERFORD EXPERIMENT	24	2.9	25	3.8	20	4.0
F07	No	PHOTOELECTRIC EFFECT	49	3.1	44	3.5	56	5.7
F09	No	NUCLEAR CHANGE IN AN ATOM	44	4.1	46	3.8	41	6.6
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	72	2.9	76	3.2	65	5.2
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	31	3.0	30	4.1	34	3.8
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	15	2.4	16	3.2	11	3.5
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	5	1.8	4	1.8	8	4.5
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	18	2.8	24	4.3	11	3.1
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	25	3.1	19	3.9	31	3.4
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	14	2.6	14	3.1	14	4.4
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	9	2.0	12	2.8	5	2.1

REL: Release Status (Yes= Item in Released Item Set)

Country=France SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	63	1.4	62	2.1	64	2.4
E10	No	LIGHT PASSING THROUGH LENS	50	1.9	59	2.5	38	3.1
F01	No	FRAUNHOFER LINES	55	4.0	53	5.1	59	5.4
F11	No	WAVELENGTHS OF RADIATION TYPES	34	2.9	38	4.6	28	3.7
F13	No	WAVELENGTH IN SHALLOW WATER	54	3.7	50	3.9	61	5.8
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	24	2.6	22	3.2	29	5.2
G13	Yes	DOPPLER EFFECT AND MOVING CAR	18	3.6	20	4.6	16	3.9
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	15	2.4	16	3.8	14	3.6
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	16	3.0	22	5.0	10	3.5
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	8	1.4	10	2.0	5	2.2
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	25	2.4	31	2.8	20	3.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Germany SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	89	1.5	90	2.5	85	3.9
E06	No	PLACEMENT OF THIRD CHARGE	30	2.3	31	3.4	29	4.2
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	30	3.7	30	4.5	29	4.6
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	44	5.6	48	5.5	39	8.4
F08	No	BULBS USING LEAST POWER	49	4.1	51	4.6	41	7.4
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	29	4.8	29	5.9	32	11.0
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	8	2.1	10	2.9	3	2.3
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	39	3.6	41	5.2	33	8.5
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	41	4.5	38	6.1	47	8.2
G17	Yes	DIRECTION OF FORCE DUE CURRENT	32	5.2	32	5.8	33	7.6
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	36	5.8	42	7.4	20	7.1
H06	Yes	INDUCED emf IN ROTATING COIL	34	5.0	30	8.0	43	9.2
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	35	5.1	36	5.9	32	7.8
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	33	6.1	38	8.0	18	7.3
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	20	3.7	23	4.7	12	4.7
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	17	3.8	21	4.8	9	4.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Germany SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	47	3.3	50	3.8	40	5.2
F05	No	HEAT TRANSFER	56	4.8	66	5.8	33	7.4
F12	No	TEMPERATURE OF A SYSTEM	11	2.6	15	3.9	5	3.1
G02	Yes	VOLUME OF STEAM	64	5.7	67	7.4	57	8.9
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	43	6.4	39	8.5	52	8.1
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	22	6.0	24	7.5	18	7.4
H02	Yes	LIQUID EVAPORATION	44	5.8	46	6.8	41	8.2
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	35	3.7	43	5.1	15	4.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Germany SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	75	3.1	81	2.9	62	5.4
E05	No	DEPTH OF WELL	76	3.3	79	3.3	71	4.9
F02	No	FORCE ON CONNECTED SPRINGS	18	4.2	25	4.6	5	3.5
F04	No	SPEED OF AIRCRAFT	38	6.5	43	6.6	29	8.1
F10	No	SPEED-TIME GRAPHS OF BALL	38	3.9	40	5.2	35	7.5
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	35	5.4	34	5.8	34	8.6
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	9	3.7	9	3.5	9	5.9
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	37	4.5	43	5.6	23	7.1
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	43	5.5	48	8.5	30	7.7
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	9	3.0	10	3.8	6	3.5
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	29	4.2	33	4.3	19	7.2
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	8	2.5	7	2.9	8	5.2
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	22	3.7	22	4.6	23	6.4
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	36	6.7	45	8.6	14	5.1
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	55	5.8	64	7.9	31	7.7

REL: Release Status (Yes= Item in Released Item Set)

Country=Germany SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	72	4.9	76	5.5	64	4.8
E07	No	BETA RADIATION OUTPUT FROM DISCS	51	3.1	50	4.8	51	5.1
F03	No	RUTHERFORD EXPERIMENT	50	5.6	58	5.3	34	7.2
F07	No	PHOTOELECTRIC EFFECT	38	5.5	34	6.1	44	7.6
F09	No	NUCLEAR CHANGE IN AN ATOM	26	4.3	25	4.6	27	7.1
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	22	4.8	23	5.9	19	7.8
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	64	4.9	73	5.2	41	9.6
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	31	5.2	33	6.3	28	7.5
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	36	4.9	44	6.9	15	5.3
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	24	4.2	28	5.8	12	5.5
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	51	5.2	60	7.8	26	6.4
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	45	4.5	44	6.9	47	8.9
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	37	5.4	34	6.2	44	8.6
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	50	6.5	56	6.9	33	8.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Germany SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	84	2.3	86	3.1	81	3.5
E10	No	LIGHT PASSING THROUGH LENS	55	3.2	63	4.4	37	4.5
F01	No	FRAUNHOFER LINES	50	4.5	47	6.3	58	10.2
F11	No	WAVELENGTHS OF RADIATION TYPES	40	4.2	45	4.8	31	6.7
F13	No	WAVELENGTH IN SHALLOW WATER	62	5.6	63	5.8	63	8.5
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	40	4.6	39	4.6	40	8.9
G13	Yes	DOPPLER EFFECT AND MOVING CAR	60	4.0	62	4.4	52	8.1
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	20	4.6	25	5.9	9	3.7
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	31	5.8	38	6.9	11	5.8
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	33	6.6	43	8.3	7	3.3
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	60	5.1	70	6.1	36	8.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Greece SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	80	2.3	79	2.4	81	3.1
E06	No	PLACEMENT OF THIRD CHARGE	47	3.0	47	3.2	45	5.2
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	32	2.7	33	3.1	32	3.7
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	40	5.8	47	7.3	23	6.0
F08	No	BULBS USING LEAST POWER	49	5.3	51	7.2	47	8.4
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	8	2.6	8	2.7	10	4.7
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	44	5.3	44	6.9	45	9.0
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	60	5.0	61	5.9	58	8.3
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	30	4.2	31	4.9	28	6.7
G17	Yes	DIRECTION OF FORCE DUE CURRENT	25	4.5	22	5.2	31	7.9
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	12	2.6	14	3.1	8	4.1
H06	Yes	INDUCED emf IN ROTATING COIL	20	4.3	19	4.7	20	8.9
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	49	5.9	54	7.1	39	9.4
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	37	6.4	37	6.5	36	9.2
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	18	4.4	18	5.0	18	6.6
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	20	4.3	21	5.5	16	5.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Greece SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	46	3.4	45	3.5	48	5.5
F05	No	HEAT TRANSFER	69	6.1	74	6.9	57	7.9
F12	No	TEMPERATURE OF A SYSTEM	4	1.8	4	1.9	4	3.0
G02	Yes	VOLUME OF STEAM	62	5.2	61	6.0	63	8.2
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	53	5.2	52	6.4	53	7.1
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	23	4.7	24	6.7	22	7.8
H02	Yes	LIQUID EVAPORATION	34	5.2	39	6.1	25	7.3
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	41	5.1	49	6.0	25	6.7
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	3	1.4	4	2.1	.	.

REL: Release Status (Yes= Item in Released Item Set)

Country=Greece SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	53	2.5	59	3.1	41	4.9
E05	No	DEPTH OF WELL	90	1.6	90	1.6	88	2.6
F02	No	FORCE ON CONNECTED SPRINGS	23	5.6	26	7.4	15	5.6
F04	No	SPEED OF AIRCRAFT	72	5.0	71	6.4	76	6.2
F10	No	SPEED-TIME GRAPHS OF BALL	36	5.7	32	6.8	43	7.9
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	48	5.9	47	7.0	53	10.1
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	18	3.6	21	5.5	11	5.7
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	14	3.5	21	5.1	2	2.0
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	57	5.0	60	5.8	52	8.6
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	20	3.0	21	4.0	17	5.4
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	54	4.6	47	5.9	66	7.2
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	15	2.9	15	3.8	14	4.6
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	19	4.2	18	4.7	21	8.1
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	35	5.6	41	6.9	24	6.1
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	29	4.5	36	5.3	16	4.7
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	28	4.5	34	5.3	16	6.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Greece SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	56	2.9	61	3.3	46	4.8
E07	No	BETA RADIATION OUTPUT FROM DISCS	40	2.7	39	2.9	41	4.7
F03	No	RUTHERFORD EXPERIMENT	23	4.5	24	5.1	20	6.1
F07	No	PHOTOELECTRIC EFFECT	42	5.4	42	6.4	41	8.3
F09	No	NUCLEAR CHANGE IN AN ATOM	10	3.3	9	3.7	14	6.0
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	2	1.6	2	1.6	2	1.9
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	34	4.6	34	5.1	33	7.2
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	19	3.9	21	5.0	16	6.1
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	18	3.7	22	4.9	11	4.7
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	2	0.7	3	1.1	.	.
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	24	3.9	23	4.1	27	7.6
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	28	4.4	26	4.9	32	6.8
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	2	1.3	1	1.4	3	3.0
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	14	3.7	13	4.0	18	6.6

REL: Release Status (Yes= Item in Released Item Set)

Country=Greece SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	66	2.9	64	3.4	71	4.4
E10	No	LIGHT PASSING THROUGH LENS	46	3.3	49	3.9	39	5.2
F01	No	FRAUNHOFER LINES	57	5.4	54	6.4	64	8.5
F11	No	WAVELENGTHS OF RADIATION TYPES	14	2.8	15	3.3	13	6.1
F13	No	WAVELENGTH IN SHALLOW WATER	50	6.2	48	5.7	55	10.0
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	18	3.5	22	4.2	10	4.6
G13	Yes	DOPPLER EFFECT AND MOVING CAR	40	5.1	41	6.0	39	8.5
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	6	2.6	7	3.5	4	3.8
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	13	3.9	12	3.9	15	5.8
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	8	2.8	10	3.4	5	3.9
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	18	3.7	18	4.3	16	6.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Latvia (LSS) SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	82	2.9	84	3.0	81	3.5
E06	No	PLACEMENT OF THIRD CHARGE	39	3.5	38	3.6	40	4.2
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	41	6.9	46	6.3	35	8.0
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	28	5.7	30	7.0	26	5.9
F08	No	BULBS USING LEAST POWER	36	4.7	38	6.9	35	4.8
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	10	2.9	7	2.6	13	4.9
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	8	4.3	9	5.6	7	3.4
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	42	4.8	42	5.6	41	5.4
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	34	5.2	38	5.4	29	6.2
G17	Yes	DIRECTION OF FORCE DUE CURRENT	26	6.1	29	5.1	23	8.3
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	4	1.2	7	2.1	2	1.1
H06	Yes	INDUCED emf IN ROTATING COIL	40	5.7	40	6.3	39	6.3
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	23	8.6	27	8.9	20	8.3
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	35	5.7	45	5.0	23	7.3
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	12	2.6	10	3.0	14	4.6
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	11	2.8	14	3.2	7	3.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Latvia (LSS) SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	52	6.5	55	6.3	49	6.5
F05	No	HEAT TRANSFER	67	4.6	71	3.9	64	7.2
F12	No	TEMPERATURE OF A SYSTEM	18	4.5	23	4.5	13	5.2
G02	Yes	VOLUME OF STEAM	43	8.3	54	6.8	32	9.9
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	39	5.5	44	4.9	34	8.3
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	14	1.7	17	2.7	12	2.5
H02	Yes	LIQUID EVAPORATION	73	3.6	73	5.3	72	4.8
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	38	7.3	41	6.9	36	8.9
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	10	3.0	12	3.5	7	2.8

REL: Release Status (Yes= Item in Released Item Set)

Country=Latvia (LSS) SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	78	3.6	88	1.7	67	5.8
E05	No	DEPTH OF WELL	82	2.6	82	2.7	82	2.9
F02	No	FORCE ON CONNECTED SPRINGS	13	5.2	19	6.0	7	4.2
F04	No	SPEED OF AIRCRAFT	43	7.6	53	6.8	34	8.7
F10	No	SPEED-TIME GRAPHS OF BALL	30	4.6	32	6.8	29	5.4
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	20	3.7	26	5.9	13	4.0
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	6	2.5	9	4.2	4	0.9
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	24	6.0	25	6.8	23	6.2
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	33	5.7	33	6.3	33	8.3
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	18	5.7	19	8.2	17	3.9
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	21	5.3	25	6.5	17	5.2
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	9	5.4	12	6.0	7	4.7
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	5	1.0	6	1.7	3	1.5
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	48	6.2	49	5.9	47	8.4
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	36	5.8	35	6.0	37	8.1
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	18	4.5	18	4.4	17	6.1

REL: Release Status (Yes= Item in Released Item Set)

Country=Latvia (LSS) SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	53	3.8	52	4.8	54	3.5
E07	No	BETA RADIATION OUTPUT FROM DISCS	52	3.7	58	4.1	45	4.0
F03	No	RUTHERFORD EXPERIMENT	31	3.5	37	5.6	26	3.0
F07	No	PHOTOELECTRIC EFFECT	56	7.0	60	5.8	53	9.4
F09	No	NUCLEAR CHANGE IN AN ATOM	39	5.3	33	6.8	45	5.5
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	7	2.9	9	3.9	5	2.9
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	28	6.6	29	7.2	26	7.6
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	34	7.3	36	7.2	31	9.6
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	31	6.0	38	6.8	24	6.4
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	8	2.2	11	2.7	5	2.5
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	37	6.1	44	7.0	30	5.6
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	55	4.8	56	5.3	55	7.5
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	14	4.2	14	4.0	14	6.4
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	12	3.8	14	3.8	9	4.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Latvia (LSS) SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	83	3.1	82	4.0	84	2.4
E10	No	LIGHT PASSING THROUGH LENS	49	5.6	54	5.7	43	5.5
F01	No	FRAUNHOFER LINES	39	6.2	41	6.2	37	7.9
F11	No	WAVELENGTHS OF RADIATION TYPES	45	3.9	49	5.4	42	6.4
F13	No	WAVELENGTH IN SHALLOW WATER	51	4.9	54	5.5	48	6.3
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	41	6.0	41	7.0	41	5.5
G13	Yes	DOPPLER EFFECT AND MOVING CAR	43	3.4	44	3.7	42	5.3
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	35	6.1	42	6.3	28	7.1
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	9	3.4	14	4.6	3	2.1
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	10	3.7	14	4.2	6	3.2
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	32	6.9	42	6.6	21	7.6

REL: Release Status (Yes= Item in Released Item Set)

Country=Norway SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	93	1.0	94	1.0	90	2.1
E06	No	PLACEMENT OF THIRD CHARGE	38	2.2	39	2.4	34	3.3
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	45	1.8	47	2.0	41	3.7
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	40	2.7	42	3.0	36	5.1
F08	No	BULBS USING LEAST POWER	56	2.6	58	2.7	50	6.2
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	29	2.6	30	3.1	27	4.9
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	18	2.5	18	2.9	19	4.3
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	59	3.3	61	3.3	51	6.0
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	40	3.0	37	3.5	49	5.3
G17	Yes	DIRECTION OF FORCE DUE CURRENT	29	2.8	31	3.5	24	4.8
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	39	2.7	41	3.1	32	5.7
H06	Yes	INDUCED emf IN ROTATING COIL	33	2.6	33	3.1	33	5.5
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	50	3.4	52	3.3	43	6.5
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	52	3.4	56	3.2	42	6.6
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	57	3.8	55	4.3	61	7.1
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	16	2.3	17	2.6	12	2.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Norway SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	46	1.5	48	2.0	39	2.8
F05	No	HEAT TRANSFER	89	1.6	91	1.9	84	3.8
F12	No	TEMPERATURE OF A SYSTEM	14	2.4	15	2.6	11	3.7
G02	Yes	VOLUME OF STEAM	81	2.1	83	2.4	73	6.2
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	44	3.0	43	3.6	49	6.6
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	22	2.4	26	2.8	11	3.6
H02	Yes	LIQUID EVAPORATION	61	2.6	62	3.3	61	5.1
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	45	2.8	47	3.6	41	5.5
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	26	2.8	29	3.2	20	4.7

REL: Release Status (Yes= Item in Released Item Set)

Country=Norway SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	83	1.3	88	1.4	69	3.2
E05	No	DEPTH OF WELL	87	1.2	88	1.2	85	2.3
F02	No	FORCE ON CONNECTED SPRINGS	33	2.9	37	3.7	23	5.2
F04	No	SPEED OF AIRCRAFT	72	2.6	71	2.9	75	5.5
F10	No	SPEED-TIME GRAPHS OF BALL	41	2.1	47	2.5	24	3.8
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	39	2.9	37	3.5	42	6.1
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	26	2.8	24	3.0	31	4.4
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	40	3.0	44	3.6	26	5.1
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	55	3.4	57	3.9	48	6.0
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	29	3.4	32	3.6	18	4.3
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	64	2.4	66	2.7	60	6.4
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	46	2.7	52	3.2	26	4.3
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	8	1.8	8	2.1	6	4.5
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	42	3.0	45	3.6	35	4.6
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	45	3.0	52	3.6	27	5.1
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	57	3.0	63	3.1	41	5.6

REL: Release Status (Yes= Item in Released Item Set)

Country=Norway SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	75	1.6	78	1.5	66	4.0
E07	No	BETA RADIATION OUTPUT FROM DISCS	43	1.6	45	1.8	35	2.9
F03	No	RUTHERFORD EXPERIMENT	49	3.0	52	3.2	41	5.9
F07	No	PHOTOELECTRIC EFFECT	70	2.6	65	3.0	81	5.2
F09	No	NUCLEAR CHANGE IN AN ATOM	19	2.4	20	3.0	17	4.0
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	41	3.4	44	3.7	33	6.3
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	90	1.7	93	1.8	83	5.2
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	45	3.3	44	3.6	48	5.1
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	57	3.1	60	3.3	49	7.0
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	17	2.6	18	2.9	15	4.1
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	64	3.1	65	3.2	60	6.4
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	67	2.8	68	3.3	67	5.5
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	73	2.8	74	3.2	70	6.0
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	14	2.0	16	2.6	9	2.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Norway SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	74	1.5	75	1.9	71	2.8
E10	No	LIGHT PASSING THROUGH LENS	68	2.0	74	1.3	51	5.0
F01	No	FRAUNHOFER LINES	83	2.6	83	3.2	82	4.5
F11	No	WAVELENGTHS OF RADIATION TYPES	57	2.7	58	3.3	54	4.0
F13	No	WAVELENGTH IN SHALLOW WATER	73	2.2	72	2.8	73	4.9
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	52	2.9	57	2.6	38	6.5
G13	Yes	DOPPLER EFFECT AND MOVING CAR	45	4.5	46	4.8	40	7.2
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	22	2.8	27	3.1	8	2.6
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	40	3.4	44	3.5	32	5.4
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	40	2.6	44	3.0	28	4.7
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	61	3.0	66	3.6	51	5.6

REL: Release Status (Yes= Item in Released Item Set)

Country=Russian Federation SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	92	1.1	95	0.9	87	2.0
E06	No	PLACEMENT OF THIRD CHARGE	48	3.1	55	3.5	40	3.8
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	48	1.7	52	3.0	42	2.4
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	37	3.4	43	3.7	32	5.0
F08	No	BULBS USING LEAST POWER	39	4.2	45	5.3	32	5.4
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	26	3.1	32	3.9	20	4.2
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	19	4.1	21	4.9	17	4.8
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	47	3.9	49	4.1	44	5.8
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	32	4.3	33	4.4	31	6.9
G17	Yes	DIRECTION OF FORCE DUE CURRENT	43	3.1	48	3.2	36	5.1
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	17	3.6	22	5.0	10	3.6
H06	Yes	INDUCED emf IN ROTATING COIL	32	3.2	35	3.9	28	4.9
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	33	3.7	38	4.4	26	5.1
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	34	3.5	41	4.5	24	6.0
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	39	4.9	41	5.0	37	7.2
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	27	3.5	32	5.0	21	3.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Russian Federation SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	54	2.8	60	2.2	47	4.2
F05	No	HEAT TRANSFER	73	3.9	85	3.9	62	6.0
F12	No	TEMPERATURE OF A SYSTEM	24	3.7	33	4.9	16	4.6
G02	Yes	VOLUME OF STEAM	73	3.9	81	3.2	62	6.1
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	43	5.3	46	6.0	39	6.3
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	19	4.1	21	4.2	16	4.9
H02	Yes	LIQUID EVAPORATION	80	3.2	84	3.0	74	5.1
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	47	3.3	51	4.0	41	6.1
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	5	1.3	6	2.3	4	1.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Russian Federation SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	75	3.2	86	2.7	62	4.8
E05	No	DEPTH OF WELL	91	1.6	93	1.6	89	2.2
F02	No	FORCE ON CONNECTED SPRINGS	25	2.8	34	4.1	16	3.6
F04	No	SPEED OF AIRCRAFT	73	4.1	76	4.7	70	4.9
F10	No	SPEED-TIME GRAPHS OF BALL	26	3.5	22	4.3	29	5.1
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	31	4.2	34	4.5	27	6.0
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	5	2.1	5	2.5	6	2.9
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	28	3.9	34	4.4	20	4.9
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	47	4.6	51	5.1	42	5.8
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	14	3.4	13	3.3	14	5.0
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	55	4.8	62	4.7	47	6.5
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	23	3.3	25	3.5	20	4.4
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	4	1.3	6	2.1	2	1.0
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	50	3.5	48	4.3	53	4.2
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	46	4.0	50	5.2	41	4.7
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	37	4.2	44	4.4	27	5.1

REL: Release Status (Yes= Item in Released Item Set)

Country=Russian Federation SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	64	2.9	70	2.6	58	4.4
E07	No	BETA RADIATION OUTPUT FROM DISCS	47	2.6	47	3.0	46	3.4
F03	No	RUTHERFORD EXPERIMENT	53	3.6	65	4.5	41	5.9
F07	No	PHOTOELECTRIC EFFECT	67	4.2	69	5.0	64	6.3
F09	No	NUCLEAR CHANGE IN AN ATOM	57	4.1	51	5.0	63	6.0
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	20	3.6	28	4.3	11	4.2
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	64	3.9	69	3.4	58	6.0
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	42	4.0	47	4.2	35	5.3
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	52	4.1	59	4.3	42	5.3
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	18	3.2	18	3.8	17	4.4
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	54	3.8	59	4.0	48	6.4
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	67	3.4	67	4.0	68	4.5
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	37	5.1	35	5.2	39	7.1
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	18	3.2	22	4.0	12	3.8

REL: Release Status (Yes= Item in Released Item Set)

Country=Russian Federation SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	84	2.0	84	2.4	85	2.3
E10	No	LIGHT PASSING THROUGH LENS	46	3.7	54	3.6	37	5.2
F01	No	FRAUNHOFER LINES	49	3.6	46	4.6	52	5.0
F11	No	WAVELENGTHS OF RADIATION TYPES	55	3.8	58	5.2	52	5.6
F13	No	WAVELENGTH IN SHALLOW WATER	59	4.3	65	5.3	52	6.3
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	52	3.2	59	4.0	42	5.2
G13	Yes	DOPPLER EFFECT AND MOVING CAR	29	3.6	32	3.2	25	6.1
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	30	4.2	37	4.9	21	4.5
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	22	2.8	32	3.8	9	3.1
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	25	3.6	33	4.3	14	3.7
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	35	3.7	43	4.6	23	6.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Sweden SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	92	1.2	94	1.5	89	1.5
E06	No	PLACEMENT OF THIRD CHARGE	36	2.4	36	3.0	37	3.4
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	51	2.3	55	2.7	43	3.4
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	52	3.9	54	5.2	49	4.7
F08	No	BULBS USING LEAST POWER	56	3.9	57	5.7	55	4.4
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	56	5.0	56	5.9	57	6.4
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	8	1.9	10	2.5	5	2.4
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	44	5.3	44	7.2	45	6.0
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	42	5.6	45	7.9	36	5.6
G17	Yes	DIRECTION OF FORCE DUE CURRENT	41	5.8	45	7.8	33	5.8
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	17	2.6	19	3.6	12	3.3
H06	Yes	INDUCED emf IN ROTATING COIL	40	3.2	44	4.2	31	6.4
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	52	3.6	53	3.8	50	6.6
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	51	4.0	56	5.6	43	7.8
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	35	4.9	37	4.3	32	8.1
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	44	6.4	48	6.5	36	8.0

REL: Release Status (Yes= Item in Released Item Set)

Country=Sweden SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	42	2.2	46	3.9	36	2.3
F05	No	HEAT TRANSFER	91	1.8	93	2.0	87	3.4
F12	No	TEMPERATURE OF A SYSTEM	11	2.5	15	3.1	5	2.5
G02	Yes	VOLUME OF STEAM	83	2.8	86	3.3	76	4.7
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	32	3.3	30	4.3	34	4.8
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	11	2.5	12	3.2	10	3.3
H02	Yes	LIQUID EVAPORATION	66	4.8	66	5.2	66	7.2
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	54	3.5	56	4.1	50	7.8
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	36	5.1	40	5.9	29	8.1

REL: Release Status (Yes= Item in Released Item Set)

Country=Sweden SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	88	1.5	93	1.2	77	2.4
E05	No	DEPTH OF WELL	85	1.3	85	1.8	83	2.7
F02	No	FORCE ON CONNECTED SPRINGS	22	2.8	30	3.5	7	2.7
F04	No	SPEED OF AIRCRAFT	63	4.3	61	5.4	66	6.2
F10	No	SPEED-TIME GRAPHS OF BALL	47	3.5	55	4.6	31	5.5
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	38	3.6	39	4.8	35	4.7
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	5	1.4	7	2.2	2	1.2
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	51	3.7	51	4.2	49	6.7
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	24	4.5	27	5.8	19	5.1
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	28	3.3	30	4.0	22	4.7
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	64	2.7	69	3.1	53	5.0
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	23	3.4	29	4.8	9	3.4
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	15	5.0	15	6.9	14	4.7
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	43	4.8	46	5.8	38	5.9
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	40	3.6	54	5.5	16	5.4
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	54	4.2	68	5.1	28	6.7

REL: Release Status (Yes= Item in Released Item Set)

Country=Sweden SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	74	1.7	77	1.9	67	3.3
E07	No	BETA RADIATION OUTPUT FROM DISCS	48	1.9	52	2.0	40	3.7
F03	No	RUTHERFORD EXPERIMENT	50	3.1	52	4.0	46	4.8
F07	No	PHOTOELECTRIC EFFECT	80	3.4	77	4.7	85	4.2
F09	No	NUCLEAR CHANGE IN AN ATOM	14	2.9	13	3.3	16	4.5
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	33	4.8	30	5.0	38	6.9
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	75	3.9	81	4.5	62	5.7
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	41	2.6	41	3.0	41	5.2
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	34	3.4	42	4.2	18	4.6
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	7	2.1	9	2.9	3	1.4
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	62	5.0	63	5.8	58	7.0
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	73	3.4	71	4.0	76	7.1
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	55	3.3	52	3.9	62	7.7
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	13	3.9	17	5.5	6	4.5

REL: Release Status (Yes= Item in Released Item Set)

Country=Sweden SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	70	1.5	69	2.1	70	2.5
E10	No	LIGHT PASSING THROUGH LENS	70	1.8	75	1.9	58	3.3
F01	No	FRAUNHOFER LINES	50	3.4	48	4.4	52	5.3
F11	No	WAVELENGTHS OF RADIATION TYPES	59	3.8	63	5.1	52	4.5
F13	No	WAVELENGTH IN SHALLOW WATER	88	2.6	90	3.2	83	4.7
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	53	5.6	50	7.0	58	7.3
G13	Yes	DOPPLER EFFECT AND MOVING CAR	20	3.8	27	5.3	4	1.8
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	40	5.2	47	5.9	28	5.8
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	65	3.5	72	5.2	52	7.7
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	36	4.4	44	6.6	22	5.8
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	62	3.4	67	4.6	54	8.1

REL: Release Status (Yes= Item in Released Item Set)

Country=Switzerland SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	83	1.3	87	2.0	80	2.4
E06	No	PLACEMENT OF THIRD CHARGE	31	2.0	33	2.6	28	3.2
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	32	1.9	39	3.3	24	1.4
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	22	3.5	24	5.5	20	4.7
F08	No	BULBS USING LEAST POWER	54	3.6	53	5.8	55	4.8
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	16	2.4	22	3.2	9	2.5
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	6	1.9	9	3.0	3	1.7
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	38	3.0	36	4.5	40	4.8
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	33	3.3	31	5.2	34	5.8
G17	Yes	DIRECTION OF FORCE DUE CURRENT	28	4.2	31	5.9	26	4.6
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	6	1.8	10	3.0	2	1.1
H06	Yes	INDUCED emf IN ROTATING COIL	25	2.9	29	5.6	23	4.4
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	30	3.7	36	5.7	25	4.0
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	30	3.3	38	5.6	23	3.9
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	14	2.6	22	4.2	7	2.2
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	10	1.4	14	2.6	7	1.7

REL: Release Status (Yes= Item in Released Item Set)

Country=Switzerland SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	46	2.1	49	2.6	43	2.4
F05	No	HEAT TRANSFER	62	4.1	71	4.3	51	6.3
F12	No	TEMPERATURE OF A SYSTEM	15	2.2	22	3.9	7	2.7
G02	Yes	VOLUME OF STEAM	66	3.8	78	5.0	54	5.6
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	43	3.4	50	5.2	35	4.0
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	20	3.6	30	5.6	10	2.9
H02	Yes	LIQUID EVAPORATION	57	3.2	56	7.2	57	5.9
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	37	2.9	48	4.4	29	3.2
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	24	3.8	31	5.7	18	4.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Switzerland SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	73	1.8	84	2.2	61	2.8
E05	No	DEPTH OF WELL	74	1.5	80	1.4	68	3.0
F02	No	FORCE ON CONNECTED SPRINGS	19	4.0	27	5.3	10	3.9
F04	No	SPEED OF AIRCRAFT	39	4.1	43	4.9	33	6.6
F10	No	SPEED-TIME GRAPHS OF BALL	46	3.9	48	5.7	44	4.4
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	27	3.8	35	4.8	18	4.6
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	6	1.1	6	2.0	6	1.4
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	27	3.4	35	3.9	20	5.3
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	20	3.2	25	5.6	14	3.1
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	15	3.7	17	3.5	13	6.4
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	19	2.5	20	3.0	18	3.7
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	12	2.7	16	3.2	8	5.0
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	14	3.1	21	4.9	7	2.1
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	39	2.7	41	6.1	38	4.7
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	17	2.3	22	3.8	14	3.3
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	31	3.7	45	6.0	20	4.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Switzerland SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	60	2.3	68	2.5	52	3.5
E07	No	BETA RADIATION OUTPUT FROM DISCS	50	2.2	54	3.0	46	2.7
F03	No	RUTHERFORD EXPERIMENT	37	4.3	39	5.5	33	5.4
F07	No	PHOTOELECTRIC EFFECT	32	3.5	27	4.4	40	4.8
F09	No	NUCLEAR CHANGE IN AN ATOM	20	2.4	21	3.9	19	4.8
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	2	0.6	3	0.8	1	0.8
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	64	2.7	71	3.7	57	4.1
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	23	3.8	22	4.1	24	6.3
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	15	2.7	23	5.1	6	2.7
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	13	1.9	21	3.0	5	2.2
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	28	4.7	32	5.5	25	5.1
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	35	3.8	45	5.5	28	5.0
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	10	2.5	12	2.8	8	3.8
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	10	1.6	17	2.6	5	1.8

REL: Release Status (Yes= Item in Released Item Set)

Country=Switzerland SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	84	1.7	86	2.0	81	2.5
E10	No	LIGHT PASSING THROUGH LENS	47	1.6	60	2.1	33	2.3
F01	No	FRAUNHOFER LINES	42	2.9	36	3.9	50	5.7
F11	No	WAVELENGTHS OF RADIATION TYPES	26	3.8	33	4.1	17	4.7
F13	No	WAVELENGTH IN SHALLOW WATER	56	4.4	57	5.5	53	7.0
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	34	4.3	33	4.6	35	5.7
G13	Yes	DOPPLER EFFECT AND MOVING CAR	30	3.2	34	4.1	25	4.4
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	16	2.4	25	5.4	9	2.8
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	14	1.6	21	3.5	8	2.2
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	16	2.5	27	5.3	8	2.3
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	47	3.3	61	5.1	37	5.7

REL: Release Status (Yes= Item in Released Item Set)

Country=United States SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	76	1.6	78	1.9	73	2.1
E06	No	PLACEMENT OF THIRD CHARGE	28	1.3	26	1.7	30	2.2
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	24	1.3	26	2.3	21	2.0
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	16	2.3	15	3.6	17	3.0
F08	No	BULBS USING LEAST POWER	28	2.7	26	3.4	29	3.8
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	0	0.2	0	0.2	0	0.2
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	0	0.1	.	.	0	0.3
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	26	2.5	27	3.4	25	2.7
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	26	2.6	31	3.8	22	2.7
G17	Yes	DIRECTION OF FORCE DUE CURRENT	12	2.1	11	1.9	12	3.9
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	1	0.3	1	0.6	.	.
H06	Yes	INDUCED emf IN ROTATING COIL	34	2.1	38	3.4	29	3.1
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	12	1.6	13	2.5	10	1.9
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	15	1.5	18	2.1	11	1.7
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	2	0.6	1	0.7	2	1.1
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	2	0.7	2	1.2	1	0.4

REL: Release Status (Yes= Item in Released Item Set)

Country=United States SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	50	1.0	48	1.6	52	2.5
F05	No	HEAT TRANSFER	35	3.4	37	5.1	33	3.4
F12	No	TEMPERATURE OF A SYSTEM	5	1.2	3	1.1	6	1.8
G02	Yes	VOLUME OF STEAM	60	2.3	65	3.6	55	3.8
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	49	2.5	48	3.7	51	3.7
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	5	1.1	6	1.8	4	0.8
H02	Yes	LIQUID EVAPORATION	39	2.5	39	2.8	39	3.5
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	15	2.0	20	3.1	9	1.8
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	2	0.6	3	0.9	1	0.8

REL: Release Status (Yes= Item in Released Item Set)

Country=United States SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	46	2.0	60	2.6	32	1.9
E05	No	DEPTH OF WELL	70	1.4	72	2.2	69	2.0
F02	No	FORCE ON CONNECTED SPRINGS	9	1.8	10	2.0	7	2.5
F04	No	SPEED OF AIRCRAFT	25	2.9	26	4.4	24	2.8
F10	No	SPEED-TIME GRAPHS OF BALL	30	2.8	33	4.6	27	2.8
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	8	1.7	12	3.2	5	1.3
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	1	0.5	2	0.6	1	0.7
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	23	2.4	27	3.9	18	2.5
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	13	1.6	14	2.5	11	2.3
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	15	2.2	13	2.1	17	4.0
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	14	2.0	19	3.4	8	1.4
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	6	1.2	10	2.1	2	1.1
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	3	1.0	4	1.3	3	1.0
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	40	2.5	38	2.9	42	4.1
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	33	2.2	43	3.1	23	2.2
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	7	1.7	10	2.2	3	1.5

REL: Release Status (Yes= Item in Released Item Set)

Country=United States SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	52	1.8	54	2.6	49	1.8
E07	No	BETA RADIATION OUTPUT FROM DISCS	41	1.4	44	1.9	38	1.6
F03	No	RUTHERFORD EXPERIMENT	30	2.1	28	2.6	33	3.2
F07	No	PHOTOELECTRIC EFFECT	56	2.5	52	4.3	60	3.0
F09	No	NUCLEAR CHANGE IN AN ATOM	19	1.9	20	2.4	17	2.6
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	0	0.2	1	0.3	0	0.2
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	52	2.8	61	4.1	43	3.4
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	23	2.6	25	3.5	20	4.2
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	5	1.1	7	2.1	2	0.8
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	2	0.7	3	1.3	1	0.5
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	24	2.4	26	2.7	23	3.1
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	34	2.3	33	3.4	35	3.1
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	7	1.4	7	1.5	7	1.9
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	1	0.3	2	0.6	0	0.1

REL: Release Status (Yes= Item in Released Item Set)

Country=United States SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	74	1.2	72	1.7	77	1.5
E10	No	LIGHT PASSING THROUGH LENS	28	1.3	32	1.7	24	1.7
F01	No	FRAUNHOFER LINES	45	2.8	42	3.3	48	3.8
F11	No	WAVELENGTHS OF RADIATION TYPES	22	2.0	24	2.8	21	2.9
F13	No	WAVELENGTH IN SHALLOW WATER	55	3.4	54	4.6	56	3.8
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	27	2.8	33	3.5	20	2.9
G13	Yes	DOPPLER EFFECT AND MOVING CAR	12	1.7	16	3.0	7	1.9
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	19	2.1	23	3.2	15	2.3
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	11	2.0	16	3.5	6	1.7
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	9	1.2	12	2.2	6	1.9
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	37	2.6	40	3.7	34	2.9

REL: Release Status (Yes= Item in Released Item Set)

Country=Slovenia SCALE=Electricity & Magnetism

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E04	No	CIRCUIT IN BOX	87	2.2	91	2.2	78	4.6
E06	No	PLACEMENT OF THIRD CHARGE	36	4.3	35	4.5	37	6.1
E09	No	CIRCUIT READINGS WHEN SWITCH IS CLOSED	45	3.7	48	4.7	37	5.1
F06	No	DIRECTION OF MAGNETIC FORCE ON ELECTRIC WIRE	28	5.9	25	6.5	39	16.9
F08	No	BULBS USING LEAST POWER	48	5.6	48	6.6	48	9.0
F14	No	MAGNITUDE OF ELECTRIC FIELD'S STRENGTH	15	3.9	16	4.6	12	5.5
F16	No	PERIOD OF A CHARGED PARTICLE MOVING IN A MAGNETIC FIELD	7	3.6	7	4.2	7	6.5
G01	Yes	PATH OF ELECTRONS TRAVELING THROUGH A MAGNETIC FIELD	50	7.8	50	9.5	47	15.2
G04	Yes	RELATIONSHIP BETWEEN INDUCED CURRENT AND VARYING MAGNETIC FIELD	27	6.5	27	7.8	27	15.1
G17	Yes	DIRECTION OF FORCE DUE CURRENT	46	5.9	48	6.1	36	15.6
G19	Yes	LENZ'S LAW AND FALLING ALUMINUM RING	16	3.8	16	4.3	12	11.1
H06	Yes	INDUCED emf IN ROTATING COIL	33	6.7	35	7.5	21	10.6
H08	Yes	PATH OF ELECTRONS IN ELECTRIC FIELD	40	7.5	36	8.8	59	15.1
H10	Yes	VECTOR SUM OF ELECTRIC FORCES	31	5.9	31	5.8	31	11.9
H16	Yes	SPEED OF AN ELECTRON TRAVELING THROUGH PERPENDICULAR ELECTRIC AND MAGNETIC FIELD	16	6.8	18	8.4	5	3.1
H17	Yes	RESISTANCE OF A SERIES CIRCUIT COMPONENT	37	6.0	39	6.1	17	7.3

REL: Release Status (Yes= Item in Released Item Set)

Country=Slovenia SCALE=Heat

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E08	No	NUMBER OF MOLECULES OF AIR	56	2.8	60	3.7	45	5.4
F05	No	HEAT TRANSFER	50	6.3	55	7.6	29	8.1
F12	No	TEMPERATURE OF A SYSTEM	19	4.3	18	4.6	25	10.5
G02	Yes	VOLUME OF STEAM	89	3.1	89	3.5	87	5.5
G03	Yes	PHYSICAL PROPERTIES OF TWO GASES AT THE SAME TEMPERATURE	49	6.1	47	6.7	53	10.3
G11	Yes	EFFECT OF ICE MELTING ON WATER LEVEL IN AQUARIUM	25	5.3	24	4.3	34	14.8
H02	Yes	LIQUID EVAPORATION	57	7.0	56	8.6	61	14.7
H07	Yes	RELATIONSHIP BETWEEN TEMPERATURE AND PRESSURE WITH CONSTANT VOLUME	64	7.1	64	7.5	59	16.5
H14	Yes	EFFECT OF DENSITY ON THE FREEZING OF WATER	17	4.6	19	5.4	5	4.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Slovenia SCALE=Mechanics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E03	No	TENSION IN THREAD BETWEEN TWO POINTS	84	2.9	91	2.2	68	5.6
E05	No	DEPTH OF WELL	78	2.8	80	2.4	71	6.5
F02	No	FORCE ON CONNECTED SPRINGS	28	7.4	29	8.2	19	11.0
F04	No	SPEED OF AIRCRAFT	66	4.1	66	4.9	63	11.2
F10	No	SPEED-TIME GRAPHS OF BALL	33	5.6	36	6.4	26	10.8
F17A	No	ACCELERATION EXPERIMENT/VALUE OF GRAVITY	42	4.9	41	4.7	42	12.7
F17B	No	ACCELERATION EXPERIMENT/ MEASUREMENT ERROR	39	7.8	38	7.9	35	14.2
G07	Yes	ENERGY TRANSFORMATION AND COLLISION OF CARS	56	7.9	61	8.2	38	12.4
G08	Yes	MECHANICAL ENERGY OF BLOCK AND SPRING SYSTEM	50	5.0	53	5.5	40	14.3
G09	Yes	DIRECTION OF FORCES IN AMUSEMENT PARK RIDE	22	6.0	21	7.2	29	13.4
G12	Yes	CALCULATION OF MASS USING CONSERVATION OF MOMENTUM	58	6.7	59	7.1	54	16.5
G15	Yes	DIRECTION OF ACCELERATION OF A BOUNCING BALL	16	3.6	17	4.7	8	4.5
G16	Yes	EFFECT OF PRESSURE ON WATER LEAKING FROM A BOTTLE	7	4.0	8	4.9	.	.
H01	Yes	BOXES SLIDING DOWN INCLINED PLANES	51	5.9	49	6.4	58	15.1
H04	Yes	TENSION OF STRING BETWEEN TWO FALLING OBJECTS	45	7.3	46	8.0	37	15.8
H13	Yes	INTERPRETATION OF A FORCE VERSUS DISTANCE GRAPH	59	6.5	64	6.8	33	11.4

REL: Release Status (Yes= Item in Released Item Set)

Country=Slovenia SCALE=Modern Physics

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E02	No	HALF-LIFE OF THORIUM	53	4.6	55	5.4	45	5.3
E07	No	BETA RADIATION OUTPUT FROM DISCS	51	3.0	53	3.0	44	6.3
F03	No	RUTHERFORD EXPERIMENT	31	6.1	32	6.1	28	13.4
F07	No	PHOTOELECTRIC EFFECT	68	4.9	66	6.7	74	9.9
F09	No	NUCLEAR CHANGE IN AN ATOM	29	7.4	29	8.5	20	7.1
F15	No	PHOTOELECTRIC EFFECTS AND DIFFERENT METALS	22	6.7	26	7.6	5	5.6
G06	Yes	PROCESS BY WHICH STARS RELEASE ENERGY	66	4.9	64	5.1	67	9.5
G10	Yes	MINIMUM VOLTAGE NEEDED TO PRODUCE X-RAYS	55	9.2	55	9.7	50	16.1
G14	Yes	PATHS OF ALPHA, BETA, AND GAMMA RAYS THROUGH AN ELECTRIC FIELD	35	8.1	36	9.7	29	14.7
G18	Yes	ALPHA PARTICLES PASSING THROUGH GOLD	21	6.7	25	8.0	6	4.3
H03	Yes	PHOTOELECTRIC EFFECT AND KINETIC ENERGY OF EMITTED ELECTRONS	45	6.2	47	6.2	36	12.9
H05	Yes	LENGTH OF SPACESHIP IN FLIGHT	56	6.3	56	7.3	50	11.4
H15	Yes	DE BROGLIE WAVELENGTH OF A MOBILE ELECTRON	19	4.4	16	4.4	18	11.0
H18	Yes	TELEVISION AS PARTICLE ACCELERATOR	20	6.1	22	7.0	6	5.2

REL: Release Status (Yes= Item in Released Item Set)

Country=Slovenia SCALE=Wave Phenomena

ITEM	REL	LABEL	Overall		Boys		Girls	
			%	(se)	%	(se)	%	(se)
E01	No	COMPARING NOTES DISPLAYED ON OSCILLOSCOPE	78	3.1	82	2.8	66	6.5
E10	No	LIGHT PASSING THROUGH LENS	51	3.8	58	4.5	32	3.8
F01	No	FRAUNHOFER LINES	47	4.7	44	5.0	58	7.5
F11	No	WAVELENGTHS OF RADIATION TYPES	58	3.9	60	4.6	51	12.6
F13	No	WAVELENGTH IN SHALLOW WATER	63	5.8	60	6.5	69	12.4
G05	Yes	DIRECTION REFRACTED RAY OF LIGHT	30	5.7	27	5.9	40	13.8
G13	Yes	DOPPLER EFFECT AND MOVING CAR	54	7.8	57	8.2	46	14.9
H09	Yes	REFRACTION AND VELOCITY OF BLUE LIGHT	32	6.0	33	5.4	18	10.0
H12	Yes	PARTICLE MOVEMENT IN A TRANSVERSE WAVE	31	5.2	35	7.2	7	5.4
H19A	Yes	SPEED OF SOUND EXPERIMENT/OUTLINE	26	4.9	30	4.8	6	5.3
H19B	Yes	SPEED OF SOUND EXPERIMENT/REASON	57	5.5	64	5.9	30	12.5

REL: Release Status (Yes= Item in Released Item Set)