Criteria

Criteria for the problem No. 21 “Onion”		
1	Produced a correct preparation	3
2	Observed and demonstrated individual cells	3
3	Observed the influence of salt	3
4	Explained the influence of salt	3
5	Observed the influence of sugar	2
6	Explained the influence of sugar	2
	TOTAL:	16

Criteria for the problem No. 31 “Sliced potato”		
1	Sliced the samples correctly	3
2	Chose the solutions correctly	3
3	Conducted a correct quantitative experiment	3
4	Explained the elongation	3
5	Explained the shortening	2
6	Explained the change of mechanical properties	2
	TOTAL:	16

Criteria for the problem No. 32 “Matches”		
1	Conducted a correct experiment	4
2	Explained the key difference of friction types for various types of motion	4
3	Measured the coefficient of friction	4
4	Provided a theoretical explanation	4
	TOTAL:	16

Criteria for the problem No. 22 “Toilet paper”		
1	Conducted a correct experiment	4
2	Explained theoretically the mechanical stresses appearing in the system	4
3	Measured at varied thickness of salt layer	4
4	Explained theoretically	4
	TOTAL:	16

Criteria for the problem No. 33 “Potato battery”		
1	Conducted a correct experiment and obtained the EMF	8
2	Determined the factors influencing the EMF	8
3		0
4		0
	TOTAL:	16

Criteria for the problem No. 34 “Blind spot”		
1	Explained the disappearance of the dot by the human physiology	3
2	Explained the nature of the blind spot	3
3	Explained the experiment with the line	4
4	Other experiments suggested and explained	6
	TOTAL:	16

Criteria for the problem No. 23 “Tea bag”		
1	Explained the nature of the lift force (convection)	4
2	Mass, size, speed estimated	4
3	Experiments with four bags explained	4
4	The difference with the simplest experiment explained	4
	TOTAL:	16

Criteria for the problem No. 35 “Chemical colors”		
1	Explained the nature of color change	5
2	Offered explanation of the parameters	5
3	Chemically appropriate method	6
	TOTAL:	16

Criteria for the problem No. 24 “Soot on a paper card”		
1	The appearance of soot explained	4
2	Experiment presented	4
3	Experimental data presented and theoretically explained	4
4	Dependence of the radius on height difference	4
	TOTAL:	16

Criteria for the problem No. 36 “Cagliostro’s resistor”		
1	Explained the parallel and series circuits	4
2	Considered possible circuits	4
3	Found the best circuit to approach the value	4
4	Calculated the error	4
	TOTAL:	16

Criteria for the problem No. 25 “String telephone”		
1	Produced the telephone	4
2	Explained its principle of operation	4
3	Presented the key role of tension in the thread	4
4	Found conditions to break the data transfer	4
	TOTAL:	16

Criteria for the problem No. 26 “Sunny bunny”		
1	Chose a good shape and size of the mirror (using mirror)	4
2	Discovered that at small distances the spot repeats the shape of the mirror, and at large distances the spot is round	4
3	Explained the transition theoretically	4
4	Made a good demonstration	4
	TOTAL:	16