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9

COURSE
«Developing Divergent Thinking»
(for Gifted Students in Grades 1–11)



Pavlodar, 2026

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The course «Developing Divergent Thinking» (for Gifted Students in Grades 1–11) is recommended for implementation in educational organizations based on the decision of the Academic and Methodological Council of the Innovation Center for Educational Development under the Department of Education of Pavlodar Region (Extract on Innovative Pedagogical Practice in the Field of Secondary Education dated 28 May 2026).

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1. Explanatory Note

Relevance. The current educational environment is characterized by the rapid growth of knowledge and the necessity to adapt to a dynamically changing world. The traditional education system is primarily focused on formal logic and information memorization, which limits the development of flexible and creative thinking. At the same time, effective problem-solving in non-standard situations requires divergent thinking — the ability to generate multiple original ideas and find unconventional solutions [1].

This course is designed to address the contradiction between the growing demand of society for creative, independent, and proactive professionals and the insufficient readiness of the education system to develop creative skills among students and teachers.

Scientific and Methodological Level. The course program belongs to the combinatorial scientific and methodological level. It is based on contemporary theories of cognitive and creative development of the individual, as well as research in the fields of psychology of thinking, pedagogy, and methods for developing creative abilities.

The methodological approach combines theoretical study of the material with practical game-based activities, ensuring the active development and systematic training of students' divergent thinking skills.

Novelty and Pedagogical Relevance. The novelty of the course lies in its systematic approach to developing divergent thinking through specially designed game-based and practical tasks integrated into the educational process.

The pedagogical relevance of the course is reflected in its ability to foster students' skills of independent thinking, cognitive flexibility in problem-solving, and creative approaches, which correspond to modern educational requirements and the needs of society.

Purpose: To develop and enhance students' divergent thinking through the theoretical understanding and practical application of creative problem-solving methods.

Objectives:

1. To familiarize students with the fundamental concepts, characteristics, and methods of applying divergent thinking.

2. To develop students' ability to generate unconventional ideas, find original solutions, and foster independent creative and intellectual development.

3. To develop students' skills in individual and collaborative problem-solving in academic and real-life contexts based on divergent thinking, the ability to justify their ideas, and evaluate alternative courses of action.

Theoretical Significance of the Program. The theoretical significance of the program lies in expanding and deepening scientific and pedagogical understanding of the mechanisms underlying the formation and development of students' divergent thinking within the context of modern education.

The relevance of implementing this course is determined by the fact that the content of compulsory general education subjects is primarily focused on the acquisition of subject-specific knowledge, the formation of algorithmic methods of

activity, and the development of convergent thinking aimed at finding a single correct solution. At the same time, the development of such components of divergent thinking as fluency, flexibility, originality, and elaboration of ideas is implemented only partially within existing curricula and lacks a systematic approach.

The course program contributes to the scientific understanding of the characteristics of divergent thinking as an essential component of creativity, ensures the integration of contemporary psychological and pedagogical approaches to developing students' creative potential, and provides a theoretical and methodological foundation for improving educational practices aimed at fostering non-standard thinking skills and creative problem-solving abilities.

Practical Significance of the Program. The course provides students with a set of game-based and practical activities designed for the independent development of divergent thinking. The acquired skills enable students to effectively solve non-standard problems, develop creative thinking, and enhance cognitive flexibility, which are essential competencies in contemporary education and professional environments.

Rationale for Age-Based Differentiation of the Course. The course content has been developed taking into account the age-related characteristics of students' cognitive development.

For students in Grades 1–4, game-based forms of activity are predominant, with an emphasis on developing imagination, figurative thinking, and associative connections.

For students in Grades 5–8, the course focuses on the transition to the conscious application of problem-solving strategies, the development of analytical abilities, and collaborative learning skills.

For students in Grades 9–11, priority is given to project-based activities, case-based problem solving, evaluation of the feasibility of ideas, and the development of innovative and systems thinking.

Each age group completes an independent, self-contained course module consisting of 34 academic hours. The sequential completion of the modules ensures increasing complexity of the content and the progressive development of divergent thinking from a basic to an advanced level.

Expected Learning Outcomes

Grades 1–4

Students will be able to:

- distinguish between divergent and convergent thinking;
- suggest multiple solutions to a given problem;
- use imagination and associative thinking when completing tasks.

Grades 5–8

Students will be able to:

- apply idea-generation techniques;
- create unconventional solutions to learning tasks;
- participate in collaborative problem-solving activities.

Grades 9–11

Students will be able to:

- apply creative thinking techniques and strategies;
- develop projects and case-based solutions;
- evaluate the originality and feasibility of ideas.

Methods for Assessing Expected Learning Outcomes. The assessment of the expected learning outcomes of the course includes several areas.

For students, assessment methods include testing (written tests to evaluate knowledge of concepts, characteristics, and methods of divergent thinking), formative and summative tasks, and oral assessment through discussions, mini-project presentations, as well as practical assignments, case-based lessons, game-based activities, and project work. These methods are aimed at assessing students' ability to generate unconventional ideas, find original solutions, and demonstrate independent creative development.

For teachers, assessment is carried out through practical demonstration of lessons applying divergent thinking methods, analysis of lesson planning, as well as questionnaires, self-assessment, and expert observation. These procedures make it possible to evaluate teachers' ability to integrate divergent thinking methods into the educational process and adjust pedagogical strategies accordingly.

Pilot Implementation: The course was piloted among students and teachers of Secondary Schools No. 17 and No. 36 in Pavlodar.

The pilot implementation involved 96 students from three age groups and 12 teachers.

The results of the initial and final assessments demonstrated positive dynamics in the development of divergent thinking components. The average number of solution options proposed by students increased by 37%, indicators of cognitive flexibility increased by 29%, and the originality of ideas increased by 33%. The most significant progress was observed among students in Grades 5–8.

The obtained results confirm the effectiveness of the course as a means of developing divergent thinking among students of different age groups.

2. Conceptual Model of the Course “Formation and Development of Divergent Thinking”

The conceptual model of the course has been developed based on contemporary psychological and pedagogical perspectives on the nature of creativity, creative thinking, and personal intellectual development.

The course is grounded in the ideas of J. Guilford regarding divergent thinking as the ability to generate multiple and diverse solutions to a single problem, E. Torrance’s concepts of creative development, the humanistic approach of C. Rogers, as well as contemporary research in cognitive psychology, creativity education, and developmental learning [2,3,4].

The conceptual model also incorporates current research on creativity and innovative thinking presented in the works of R. Beghetto [5], J. Kaufman [6], M. Runco [7], as well as the OECD Future of Education and Skills 2030 research framework and materials of the World Economic Forum on the development of 21st-century skills [8,9].

The methodological foundation of the course is based on competency-based, activity-based, learner-centered, and systemic approaches.

The competency-based approach involves developing not only students’ knowledge of divergent thinking but also their ability to apply it in various educational, real-life, and professionally oriented contexts. Particular emphasis is placed on developing skills in idea generation, searching for alternative solutions, predicting consequences, and creatively transforming available information.

The activity-based approach views thinking as a process of active interaction between the learner and the surrounding environment. Therefore, the course content focuses on practical assignments, solving non-standard problems, participation in game-based situations, project activities, and collaborative discussion of various solution options.

The learner-centered approach ensures consideration of students’ age-related and individual characteristics. The course provides gradual progression in complexity, which is reflected in the structure of the program for different age groups.

For Grades 1–4, the primary focus is on developing imagination, figurative thinking, and associative thinking through game-based exercises, creative tasks, and basic idea-generation techniques.

For Grades 5–8, the course content includes the acquisition of divergent thinking methods (brainstorming, synectics, and the “Six Thinking Hats” method), development of skills in analyzing, evaluating, and selecting ideas, as well as solving educational and real-life problems with multiple possible solutions.

For Grades 9–11, students move toward applying creative thinking technologies to solve complex cases, develop projects, model alternative scenarios, and evaluate the feasibility of innovative ideas.

The course content is progressively structured from the formation of basic components of divergent thinking to their conscious and independent application in project-based, research-oriented, and practice-oriented activities.

The systemic approach allows divergent thinking to be viewed as a complex of interconnected cognitive processes, including imagination, associative thinking, cognitive flexibility, the ability to combine ideas, critical analysis, and creative problem-solving. All course sections are interconnected and ensure the consistent development of these components [10].

The implementation of the course is based on the following principles [10,11]:

- the principle of developmental learning, ensuring that the educational process is aimed at developing students' intellectual and creative abilities;

- the principle of activity and independence, involving students in active cognitive engagement, searching for their own solutions, and generating original ideas;

- the principle of variability, recognizing the existence of multiple correct approaches to solving a problem and encouraging diversity of thinking strategies;

- the principle of gradual complexity, ensuring a consistent transition from simple imagination and association exercises to complex creative and project-based tasks;

- the principle of practical orientation, involving the application of developed divergent thinking skills in academic activities and real-life situations;

- the principle of collaboration, based on organizing joint activities, collective problem-solving, and exchange of ideas.

The structure of the course is designed according to the logic of developing divergent thinking and reflects a gradual transition from understanding the essence of creative thinking to its practical application. The age-based differentiation of the course content is determined by the characteristics of students' cognitive and personal development at different levels of school education.

For Grades 1–4, the course content focuses on developing imagination, figurative thinking, and associative thinking through game-based and creative activities. For Grades 5–8, emphasis is placed on mastering idea-generation methods, developing cognitive flexibility, analytical skills, and collaborative problem-solving abilities. For Grades 9–11, the course content is aimed at applying creative thinking technologies in project-based, research-oriented, and practice-based activities, solving cases, and developing innovative solutions.

Each age group completes an independent content-based course module corresponding to its level of cognitive development and ensuring the progressive complexity of the developing components of divergent thinking.

At the first stage, students become familiar with the concepts of divergent and convergent thinking, recognize the importance of creativity in the modern world, and acquire initial experience in generating ideas. This stage is represented by the section “Introduction to Divergent Thinking.”

At the second stage, imagination and associative thinking are developed through visual, verbal, and game-based exercises. Students learn to establish new connections between objects and phenomena, transform familiar images, and create original ideas. This stage is implemented through the sections “Development of Imagination and Associative Thinking” and “Development of Imagination and Creative Approaches.”

The third stage focuses on mastering idea-generation techniques and developing cognitive flexibility. The course content includes brainstorming, synectics, SCAMPER, association techniques, and other creative problem-solving tools. At this stage, students acquire the skills to generate multiple solutions to a single problem and evaluate their effectiveness.

The fourth stage is associated with the development of analytical, critical, and systems thinking. Students learn to analyze ideas, evaluate their originality, practical value, and feasibility, as well as identify relationships between different objects and processes.

The fifth stage involves applying divergent thinking in academic, social, and project-based activities. Case studies, solving real-life problem situations, project development, and participation in collaborative activities contribute to transferring the acquired skills into practical contexts.

The stages of divergent thinking development correspond to students' age groups and reflect the progressive complication of the course content in accordance with the cognitive development characteristics of children and adolescents (Table 1).

Table 1 – Alignment of the Stages of Divergent Thinking Development with Students' Age Groups

Stage	Stage Title	Age Group	Stage Content
1	Introduction to Divergent Thinking	Grades 1–4	Formation of initial understanding of divergent and convergent thinking, development of interest in creative exploration and idea generation.
2	Development of Imagination and Associative Thinking	Grades 1–4	Development of figurative thinking, imagination, and the ability to establish unconventional connections between objects and phenomena.
3	Mastering Idea-Generation Techniques and Developing Cognitive Flexibility	Grades 5–8	Acquisition of creative problem-solving methods, development of the ability to consider problems from different perspectives and propose alternative courses of action.
4	Development of Analytical, Critical, and Systems Thinking	Grades 5–8, Grades 9–11	Formation of skills in analyzing, evaluating, selecting, and improving ideas; development of the ability to justify arguments and engage in reflection.
5	Application of Divergent Thinking in Academic, Social, and Project-Based Activities	Grades 9–11	Solving cases, completing projects, modeling problem situations, and developing innovative solutions.

The course content ensures a gradual transition from the formation of the basic components of divergent thinking to their conscious and independent application in academic, project-based, and social activities.

The outcome of completing the course is the development of a stable ability to search for unconventional solutions, generate original ideas, creatively transform

information, engage in productive teamwork, and independently solve educational and real-life problems.

The conceptual model of the course can be represented through the following logical sequence:

Goal → Course Sections → Teaching Methods → Practice → Outcomes

The goal of the course is to develop students' divergent thinking through the consistent mastery of the content of six thematic sections that reveal the essence of creativity, imagination, associative thinking, idea-generation methods, and approaches to solving non-standard problems.

The implementation of this goal is ensured through the use of a set of game-based, problem-based, project-based, research-oriented, and interactive teaching methods focused on students' active cognitive engagement.

Through practical, creative, individual, and team-based tasks, conditions are created for the development of imagination, associative thinking, flexibility, fluency, originality, and critical thinking.

The consistent mastery of the course content contributes to students' ability to generate diverse ideas, identify alternative approaches to solving problems, effectively apply creative approaches in academic and real-life contexts, and independently address complex and non-standard tasks in conditions of uncertainty.

The conceptual model of the course provides an integrated system for developing divergent thinking among students of all age groups, creating conditions for the advancement of creativity, cognitive flexibility, and readiness for effective activity in a rapidly changing world.

3. Organizational and Methodological Conditions for Course Implementation.

The effectiveness of implementing the course "Developing Divergent Thinking" is ensured through the creation of a set of organizational and methodological conditions aimed at establishing an educational environment that stimulates students' creative activity, cognitive independence, and the development of their creative potential.

The course content is focused on the systematic development of divergent thinking through a combination of theoretical and practical classes that take into account students' age-related characteristics and the level of development of their cognitive abilities.

The organization of the educational process involves the use of various forms of instruction that ensure students' active engagement in creative activities. The main forms of course implementation include interactive lectures, practical classes, training exercises, creative workshops, business and role-playing games, group discussions, project-based activities, case-based assignments, intellectual competitions, and presentations of learning outcomes.

For younger students, priority is given to game-based learning activities aimed at developing imagination, associative thinking, and the ability to identify multiple solutions to a single problem. For middle and upper secondary school students, the proportion of problem-based, inquiry-based, and project-based learning activities

increases, enabling them to apply divergent thinking in solving academic and real-life problems [12].

The course content is implemented through a set of teaching methods aimed at developing students' cognitive flexibility and creative productivity. Problem-based learning methods play a leading role, involving the creation of intellectual challenges and the search for various ways to overcome them.

The course widely applies idea-generation methods, including brainstorming, synectics, the method of focal objects, morphological analysis, the Six Thinking Hats method, SCAMPER, and various associative techniques.

Game-based methods are of particular importance, as they enable the development of creative thinking skills within an emotionally supportive and psychologically comfortable learning environment.

During the course implementation, project-based learning methods, the case method, discussion-based approaches, collaborative problem-solving techniques, and reflection methods are also applied. These approaches contribute to the development of students' ability to analyze, evaluate, and improve their own ideas.

The technological support of the course is based on modern educational technologies aimed at developing students' creative potential. A key role is given to developmental learning, problem-based learning, project-based learning, game-based learning, and critical thinking development technologies.

Collaborative learning technologies are also essential, ensuring the organization of collective problem-solving and the development of students' communication competencies.

For middle and upper secondary school students, inquiry-based learning technologies are actively used, enabling students to independently search for information, analyze different approaches to solving problems, and develop their own projects.

The implementation of the course also includes the use of digital educational technologies, interactive platforms, multimedia resources, electronic learning tools, and online instruments for organizing collaborative creative activities [13].

The material and technical resources for the course should correspond to the objectives of developing divergent thinking. The learning environment should include classrooms equipped with modern instructional technologies, including a computer or laptop, multimedia projector, interactive panel or interactive whiteboard, audio system, and Internet access.

For practical and project-based activities, the following resources are used: handouts, task cards, creative modeling kits, flipcharts, markers, paper of various formats, visualization tools, and resources for presenting ideas and outcomes of collaborative work.

For individual course sections, digital tools may be used to create mind maps, presentations, visual models, and collaborative projects. The use of these resources ensures the organization of an educational process aimed at developing students' imagination, cognitive flexibility, originality, and productivity of thinking [13].

The established organizational and methodological conditions ensure the consistent implementation of all course sections — from developing initial

understanding of divergent thinking to mastering idea-generation techniques, solving non-standard problems, and applying creative strategies in academic, project-based, and social activities.

The described conditions ensure the achievement of the expected learning outcomes and the development of students' sustainable readiness for creative problem-solving in various areas of life.

4. Diagnostic Tools and Assessment Framework

The diagnostic system of the course "Formation and Development of Divergent Thinking" is aimed at assessing the dynamics of the development of students' creative and intellectual abilities, as well as the level of formation of the main components of divergent thinking.

The diagnostic toolkit has been developed in accordance with the objectives and tasks of the course and is focused on identifying the level of development of the key components of divergent thinking, including fluency, flexibility, originality, elaboration of ideas, associative thinking, imagination, and the ability to search for alternative solutions. The assessment is carried out at three stages: initial, intermediate, and final.

The initial assessment is conducted before the beginning of the course and is aimed at determining the baseline level of students' divergent thinking development. The main objective of this stage is to identify students' ability to generate multiple solution options, establish unconventional connections between objects and phenomena, demonstrate creative initiative, and apply imagination in the problem-solving process.

For the initial assessment, an introductory diagnostic module (the zero module of the course) is used. It includes tasks involving free idea generation, exercises on completing unfinished images and stories, associative tasks, test questions aimed at understanding the essence of divergent thinking, as well as open-ended creative problem-solving tasks. The obtained results make it possible to determine students' initial level of development and use these data as a foundation for further monitoring of educational achievements.

The intermediate assessment is conducted after the completion of individual sections of the course and is designed to monitor the dynamics of divergent thinking development throughout the learning process. At this stage, the degree to which students have mastered idea-generation techniques, the level of imagination development, the ability to apply acquired methods when solving non-standard problems, as well as the ability to work independently and collaboratively are assessed.

The diagnostic tools used at this stage include practical tasks, case studies, game-based exercises, mini-projects, creative assignments, discussions, and presentations of activity outcomes. The intermediate assessment makes it possible to identify students' difficulties in a timely manner, adjust the content of instructional sessions, and ensure the individualization of the educational process.

The final assessment is conducted upon completion of the course and is aimed at providing a comprehensive evaluation of the learning outcomes achieved. The final evaluation involves students' completion of creative and problem-based tasks

requiring the application of various divergent thinking strategies. Particular attention is paid to the ability to generate multiple ideas, propose original solutions, combine existing methods of action, justify one's own position, and apply acquired knowledge in new situations.

The forms of final assessment include comprehensive creative tasks, project-based assignments, case study solutions, presentations of students' own ideas, and completion of a final test. A comparison of the results of the initial and final assessments makes it possible to determine the extent to which the intended course outcomes have been achieved and to evaluate the effectiveness of the educational program.

The assessment of the results of course completion is carried out based on a system of criteria reflecting the key indicators of divergent thinking. The main criteria include:

- Fluency of thinking, which characterizes the learner's ability to generate a significant number of ideas within a limited period of time;
 - Flexibility of thinking, reflecting the ability to shift from one problem-solving strategy to another and apply various approaches;
 - Originality of thinking, demonstrated through the creation of unusual and non-standard ideas;
 - Elaboration of ideas, characterizing the ability to provide details, refine, and improve the proposed solutions;
 - Independence of thinking, reflecting the readiness to engage in an autonomous search for possible solutions;
 - Practical applicability of the proposed ideas.
- To ensure the objectivity of assessment and minimize the risk of a formalized evaluation approach, each criterion is assessed based on corresponding descriptors (Table 2).

Table 2 – Criteria and Descriptors for Assessing the Level of Divergent Thinking Development in Learners

Criterion	High Level	Medium Level	Low Level
Fluency of thinking	Generates a large number of diverse ideas within a limited period of time	Suggests several possible solutions to a problem	Experiences difficulties in generating ideas and suggests only 1–2 options
Flexibility of thinking	Applies various problem-solving strategies and easily switches between different approaches	Uses 2–3 methods for solving a problem	Adheres to only one problem-solving approach
Originality of thinking	Proposes unconventional and unique ideas	Suggests some original ideas alongside typical ones	Primarily proposes standard solutions

Elaboration of ideas	Provides detailed development and justification of the proposed solutions	Partially reveals the content and essence of the idea	Provides only a brief description of the idea without further elaboration
Independence of thinking	Completes tasks independently and makes decisions autonomously	Completes tasks with minor support from the teacher	Requires constant assistance and guidance
Practical applicability of ideas	Proposed solutions are realistic and can be implemented in practice	Solutions are partially applicable in practical activities	Proposed ideas are difficult to implement or lack practical value

The use of these descriptors ensures consistency in assessment, objectivity in the interpretation of diagnostic results, and the monitoring of the dynamics of learners' divergent thinking development at various stages of course completion.

A three-level scale is used to assess learning achievements:

- The high level is characterized by the learner's ability to independently generate a large number of original ideas, apply various problem-solving strategies, and effectively use divergent thinking methods in new situations.

- The medium level implies successful completion of most tasks and the use of several solution options with partial support from the teacher.

- The low level is characterized by difficulties in generating ideas, a limited number of proposed solutions, and insufficient independence in performing creative tasks.

The diagnostic results are used not only to assess the achievement of the intended course outcomes but also to improve the content of the program, select the most effective teaching methods, and develop individualized educational pathways for learners.

This approach ensures continuous monitoring of divergent thinking development and enables an objective evaluation of the effectiveness of course implementation at all stages of the learning process.

5. Curriculum and Thematic Plan

3. Curriculum and Theme Plan				
№	Topic	Number of Hours	Type of Classes	
			Theoretical	Practical
	Grades 1–4			
	Section 1. Introduction to Divergent Thinking			
1	The concept of divergent and convergent thinking	1	1	
2	The importance of divergent thinking for the development of creativity	1	1	
3	Practical exercises for developing divergent thinking through imagination and associative search	2	1	1
	Section 2. Development of Imagination and Associative Thinking			

4	Exercises for imaginative thinking (visual associations, “What can be created from...?”)	2		2
5	Methods for stimulating associations: “association chain”, “metaphorical cards”	2		2
6	Game-based tasks: creating unusual stories, drawings, and imaginary objects	2		2
Section 3. Games as a Tool for Divergent Thinking Development				
7	The role of games in developing flexibility of thinking	2	1	1
8	Games for non-standard problem solving: “Finish the Story”, “Incredible Combinations”	2	1	1
9	Team exercises for idea generation and collaborative creativity	2	1	1
Section 4. Development of Creative Abilities through Words and Images				
10	Word games: creating new words, “alternative names”, puns	2		
11	Visual tasks: imaginative drawings, transforming an ordinary object into an unusual one	2		
12	Free improvisation as a means of revealing individual creativity	2		
Section 5. Solving Non-Standard Problems				
13	Logical and non-standard tasks stimulating alternative thinking	2		
14	Brainstorming and “Six Thinking Hats” methods in children’s practice	2		
15	Creating original solutions to simple school-related problems	2		
Section 6. Integration and Application of Skills				
16	Project-based activity: creating a mini-project or presentation using divergent thinking	2	1	1
17	Game-based competition of ideas and creative solutions	2		2
18	Developing a personal strategy for divergent thinking development	2	1	1
	Total	34		
Grades 5–8				

	Section 1. Introduction to Divergent Thinking			
1	Concepts: divergent vs. convergent thinking	1	1	
2	Why it is important to develop creativity and flexibility of thinking	1	1	
3	Mini-games for demonstrating originality: associations and non-standard answers to familiar questions	2	1	1
	Section 2. Development of Imagination and Creative Approach			
4	Visual imagination: transformation of objects, “new uses for familiar things”	2	1	1
5	Verbal imagination: creating unusual stories and alternative endings	2	1	1
6	Exercises on generating multiple solutions to a single problem	2	1	1
	Section 3. Idea Generation Methods			
7	Techniques of “brainstorming”, “synectics”, and “Six Thinking Hats” for adolescents	2	1	1
8	Practice of combining ideas and developing flexibility of thinking	2	1	1
9	Tasks for generating the maximum number of non-standard solutions	2	1	1
	Section 4. Development of Analytical and Critical Thinking			
10	Comparing ideas: assessment of originality and practicality	2	1	1
11	Logical and non-standard problems requiring multiple solutions	2		2
12	Discussions and group exercises on argumentation of unconventional ideas	2	1	1
	Section 5. Creative Solution of Academic and Life-Related Problems			
13	Application of divergent thinking in learning: mathematics, literature, and project-based tasks	2	1	1
14	“What if...?” scenarios for developing strategic thinking	2		2
15	Individual and group creative projects	2		2
	Section 6. Project-Based Activity and Practice			

16	Development of mini-projects: presentations and creative ideas for real-life problems	2		2
17	Teamwork: role distribution, idea generation, and visualization of solutions	2		2
18	Developing a strategy for further creative thinking development	2		2
	Total	34		
	Grades 9–11			
	Section 1. Introduction to Divergent Thinking and Creativity			
1	Concepts: divergent vs. convergent thinking	1	1	
2	The role of creativity in learning, career, and life	1	1	
3	Self-assessment: evaluating the level of creativity and flexibility of thinking	2		2
4	Mini-exercises on generating unconventional ideas and associations	2		2
	Section 2. Methods of Idea Generation and Creative Problem Solving			
5	Techniques of brainstorming, synectics, SCAMPER, and Six Thinking Hats	1	1	
6	Working with constraints: how to use limitations to enhance creativity	1	1	
7	Practical tasks: finding multiple solutions to a single problem and creating non-standard scenarios	2	1	1
	Section 3. Development of Critical and Analytical Thinking			
8	Evaluation of ideas: originality, feasibility, and logical structure	2	1	1
9	Logical and creative tasks with multiple correct solutions	2	1	1
10	Discussions and argumentation of ideas; group work on developing counterarguments	2	1	1
	Section 4. Interdisciplinary Creativity and Project-Based Work			
11	Application of divergent thinking in science, literature, and art	2	1	1
12	Mini-projects: development of new products, improvement of processes, and research ideas	2	1	1
13	Teamwork: idea generation, role distribution, and visualization of solutions	2	1	1

Section 5. Creative Problem Solving of Real-Life Tasks				
14	Solving case studies from real-life and professional contexts	2	1	1
15	The “What if?” method for strategic and innovative thinking	2	1	1
16	Individual and group tasks involving multiple solution options	2		
Section 6. Development of Innovative and Systems Thinking				
17	Combining ideas and creating new concepts	1	1	
18	Systems thinking: understanding connections between different fields of knowledge	1	1	
19	Practical exercises: designing alternative scenarios and modelling complex systems	2		2
20	Developing a personal strategy for further divergent thinking development	2		2
	Total	34		

6. Course Content

Grades 1–4

Section 1. Introduction to Divergent Thinking — 4 hours

The concept of divergent and convergent thinking. The importance of divergent thinking for the development of creativity. Practical exercises aimed at developing divergent thinking through imagination and associative search.

Section 2. Development of Imagination and Associative Thinking - 6 hours

Exercises for imaginative thinking (visual associations, “What can be created from...?”). Methods for stimulating associations: “association chain”, “metaphorical cards”. Game-based tasks: creating unusual stories, drawings, and imaginary objects.

Section 3. Games as a Tool for Divergent Thinking Development - 6 hours

The role of games in developing flexibility of thinking. Games aimed at non-standard problem solving: “Finish the Story”, “Incredible Combinations”. Team exercises for idea generation and collaborative creativity.

Section 4. Development of Creative Abilities through Words and Images - 6 hours

Word-based games: creating new words, “alternative names”, and puns. Visual tasks: imaginative drawings and transforming an ordinary object into something unusual. Free improvisation as a means of revealing individual creativity.

Section 5. Solving Non-Standard Problems - 6 hours

Logical and non-standard tasks stimulating alternative thinking. Methods of “brainstorming” and “Six Thinking Hats” in children’s practice. Creating students’ own original solutions to simple school-related problems.

Section 6. Integration and Application of Skills — 6 hours

Project-based activities: creating a mini-project or presentation using divergent thinking. A game-based competition of ideas and creative solutions. Developing a personal strategy for divergent thinking development.

Grades 5–8

Section 1. Introduction to Divergent Thinking - 4 hours

Concepts: divergent vs. convergent thinking. The importance of developing creativity and flexibility of thinking. Mini-games for demonstrating originality: associations and non-standard answers to familiar questions.

Section 2. Development of Imagination and Creative Approach - 6 hours

Visual imagination: transformation of objects and “new uses for familiar things”. Verbal imagination: creating unusual stories and alternative endings. Exercises on generating multiple solutions to a single problem.

Section 3. Idea Generation Methods - 6 hours

Techniques of “brainstorming”, “synectics”, and “Six Thinking Hats” for adolescents. Practice of combining ideas and developing flexibility of thinking. Tasks aimed at generating the maximum number of non-standard solutions.

Section 4. Development of Analytical and Critical Thinking - 6 hours

Comparison of ideas: assessment of originality and practicality. Logical and non-standard tasks focused on finding multiple solutions. Discussions and group exercises aimed at developing argumentation skills for unconventional ideas.

Section 5. Creative Solution of Academic and Life-Related Problems - 6 hours

Application of divergent thinking in learning: mathematics, literature, and project-based assignments. “What if...?” scenarios for developing strategic thinking. Individual and group creative projects.

Section 6. Project-Based Activity and Practice -6 hours

Development of mini-projects: presentations and creative ideas for real-life problems. Teamwork: role distribution, idea generation, and visualization of solutions. Developing a strategy for further creative thinking development.

Grades 9–11

Section 1. Introduction to Divergent Thinking and Creativity — 6 hours

Concepts: divergent vs. convergent thinking. The role of creativity in learning, career development, and life. Self-assessment: evaluation of the level of creativity and flexibility of thinking. Mini-exercises on generating unconventional ideas and associations.

Section 2. Methods of Idea Generation and Creative Problem Solving — 4 hours

Techniques of brainstorming, synectics, SCAMPER, and Six Thinking Hats. Working with constraints: how to use limitations as a tool for enhancing creativity. Practical tasks: finding multiple solutions to a single problem and creating non-standard scenarios.

Section 3. Development of Critical and Analytical Thinking — 6 hours

Evaluation of ideas: originality, feasibility, and logical structure. Logical and creative tasks with multiple possible correct solutions. Discussions and argumentation of personal ideas; group activities focused on developing counterarguments.

Section 4. Interdisciplinary Creativity and Project-Based Work — 6 hours

Application of divergent thinking in science, literature, and art. Mini-projects: development of new products, improvement of processes, and creation of research ideas. Teamwork: idea generation, role distribution, and visualization of solutions.

Section 5. Creative Solution of Real-Life Problems — 6 hours

Solving case studies from real-life and professional contexts. The “What if?” method for developing strategic and innovative thinking. Individual and group tasks involving multiple solution options.

Section 6. Development of Innovative and Systems Thinking — 6 hours

Combining ideas and creating new concepts. Systems thinking: understanding connections between different fields of knowledge. Practical exercises: designing alternative scenarios and modelling complex systems. Developing a personal strategy for further divergent thinking development.

7. Assessment Tools Framework

The assessment tools framework of the course “Formation and Development of Divergent Thinking” represents a set of diagnostic materials designed to evaluate the level of development of divergent thinking, creative abilities, flexibility of thinking, originality of ideas, and learners’ ability to solve non-standard problems. The assessment tools are used at all stages of course implementation and ensure objective monitoring of the achievement of the intended learning outcomes.

One of the main assessment instruments is a set of test tasks aimed at evaluating learners’ knowledge of the essence of divergent thinking, its characteristics, methods of idea generation, and approaches to solving creative problems. The tests include tasks involving multiple-choice questions, matching exercises, object classification, situational analysis, and identification of the most effective problem-solving strategies.

For younger school-age learners, test tasks are primarily designed in a game-based and visual format, whereas for middle and high school learners, analytically oriented tasks are used that require justification, reasoning, and comparison of different solution options.

An important place in the assessment system is occupied by creative tasks, which make it possible to identify learners' ability to generate new ideas and original solutions. The assessment of creative tasks is carried out based on a system of criteria reflecting the key components of divergent thinking. The evaluation takes into account the number of ideas proposed (fluency of thinking), the diversity of approaches and solution methods (flexibility of thinking), the degree of novelty and unconventionality of the suggested options (originality of thinking), the level of detail and elaboration of the idea (elaboration), as well as the possibility of practical application of the proposed solution.

Each criterion is assessed using a three-level scale (high, medium, and low levels). The high level implies the independent creation of a large number of original and well-developed ideas; the medium level is characterized by the presence of several solution options and individual elements of originality; the low level is demonstrated through a limited number of standard solutions and insufficient independence in completing the task.

To ensure objectivity of assessment, observation sheets, expert evaluation forms, and developed descriptors for each criterion are used. The final assessment of a creative task is formed through a comprehensive analysis of all indicators of divergent thinking demonstrated by the learner during the completion of the activity.

To assess the ability to apply divergent thinking in practical situations, case-based tasks are used. Cases represent real or simulated problem situations that require the search for multiple solution options and the selection of the most effective course of action. Depending on the learners' age category, cases may be related to academic activities, interpersonal interaction, organization of school events, or the solution of environmental, social, or everyday problems. When evaluating case studies, the number of proposed solutions, their diversity, originality, justification, and practical feasibility are taken into account.

The final assessment tool for evaluating the development of divergent thinking is project-based activity. Project implementation allows learners to integrate the knowledge and skills acquired during the course and demonstrate their ability to independently search for and implement creative ideas. Project assessment is carried out using specialized rubrics that include the following criteria: originality of the idea, degree of independence in completing the work, quality of solution development, practical significance of the project, application of divergent thinking methods, quality of presentation of results, and the ability to provide reasoned justification and defense of the proposed solutions.

Each criterion is assessed using a three-level scale: high, medium, and basic level of achievement.

The high level is characterized by the presence of an original idea, independence in project implementation, in-depth development of the solution, and a convincing justification of its practical significance. The medium level implies the

presence of an interesting idea and a sufficient degree of independence, with some difficulties in elaboration and argumentation. The low level is characterized by the use of typical solutions, limited independence, and insufficient development of certain project elements.

To ensure systematic monitoring of learners' development, pedagogical observation checklists are used. Observation is carried out during practical, game-based, research, and project-based activities. The checklists make it possible to record manifestations of the main characteristics of divergent thinking and assess their dynamics throughout the entire course.

The checklist structure includes the following indicators: demonstrates interest in searching for new ideas; suggests multiple solutions to a single problem; uses unconventional methods of solving problems; establishes unusual connections between objects and phenomena; actively participates in collaborative discussion of ideas; is able to develop and improve proposed solutions; demonstrates independence of thinking; provides justification for their own position; is willing to consider alternative points of view; effectively interacts with other participants when completing group tasks.

Each indicator is assessed using a three-point scale: 0 points — the indicator is not demonstrated; 1 point — the indicator is demonstrated occasionally or with teacher support; 2 points — the indicator is demonstrated consistently and independently. The obtained results are used to analyze learners' individual progress and adjust the educational process.

The integrated use of tests, creative tasks, case studies, project-based assignments, assessment rubrics, and observation checklists ensures an objective evaluation of the level of divergent thinking development, makes it possible to monitor learners' progress, and confirms the achievement of the course objectives and expected learning outcomes.

8. Methodological Recommendations for Teachers

The effectiveness of implementing the course "Formation and Development of Divergent Thinking" largely depends on the organization of the educational process, which ensures the active involvement of learners in creative activities, the creation of a psychologically safe environment, and support for cognitive initiative. The main task of the teacher is not to provide ready-made solutions, but to create conditions for learners' independent search for various possible answers, development of the ability to consider a problem from different perspectives, and generation of their own original ideas.

It is recommended that lessons be organized according to a consistent structure that ensures the gradual development of the components of divergent thinking. Each lesson should begin with a motivational stage aimed at activating cognitive interest and engaging learners in a problem-based situation. Introductory elements may include unusual questions, creative warm-up activities, associative exercises, problem-based stories, or demonstrations of non-standard situations.

The main part of the lesson should include practical tasks aimed at generating ideas, searching for multiple solution options, and developing imagination and flexibility of thinking. The final stage is reflection, during which learners analyze

their own activities, evaluate the effectiveness of the strategies they have used, and discuss possible ways to improve the proposed solutions.

When organizing lessons, it is recommended to follow the principle of gradual complexity. At the initial stages of learning, it is appropriate to use tasks aimed at developing imagination, associative thinking, and free generation of ideas. As learners progress through the course, it is necessary to move toward more complex creative tasks, case studies, research assignments, and project-based activities that require the application of various idea-generation methods and independent decision-making. Particular attention should be paid to creating an atmosphere of intellectual freedom in which learners are not afraid to express unconventional assumptions and propose non-standard solutions to the assigned tasks.

The organization of group work should focus on developing cooperation skills, exchanging ideas, and promoting collaborative creativity. It is recommended that groups be formed according to the principle of diversity, bringing together learners with different levels of preparation, experience, and thinking styles. During the completion of group tasks, each participant should be provided with the opportunity to express their own ideas and take part in discussions. Effective forms of group work include brainstorming sessions, discussions, case-solving activities, project-based learning, development of collaborative products, and presentation of the results of joint work. It is important to create conditions where not only the final outcome is evaluated, but also participants' activity, ability to consider different viewpoints, and willingness to develop the ideas of other group members.

A particularly important aspect of the learning process is the organization of high-quality feedback. When evaluating learners' performance, it is recommended to focus not only on the correctness or effectiveness of the solution but also on the process of searching for ideas itself. The teacher should encourage initiative, originality of thinking, willingness to propose alternative options, and readiness for experimentation. Feedback should have a supportive and developmental nature, contribute to strengthening learners' confidence in their own abilities, and stimulate further creative activity.

Instead of simply pointing out mistakes, it is advisable to use questions that encourage further reflection, such as: "What other options are possible?", "How can this solution be improved?", "Can the problem be viewed from another perspective?" This approach contributes to the formation of a growth-oriented mindset and supports learners' cognitive motivation.

The development of divergent thinking should not be limited to the course framework but should also be integrated into everyday educational practice. For this purpose, it is recommended to systematically use open-ended tasks in lessons that allow multiple solution options, problem-based questions, choice-based situations, and exercises focused on finding alternative ways of action. Effective activities include tasks involving the transformation of objects, creation of associations, prediction of consequences, development of unconventional scenarios, and construction of new ideas based on existing solutions. An important condition is to avoid an exclusive focus on a single correct answer and to create an educational environment in which diversity of ideas and thinking approaches is valued.

When working with younger school-age learners, it is recommended to primarily use game-based methods, visual materials, creative exercises, and fairy-tale-based scenarios. For middle school learners, it is appropriate to expand the range of problem-based and research-oriented tasks connected with academic and social contexts. In senior grades, emphasis should be placed on solving complex case studies, project-based activities, development of innovative ideas, and modelling real-life situations requiring the application of divergent thinking.

The systematic use of these methodological approaches makes it possible to create an educational environment that promotes the development of learners' fluency, flexibility, originality, and independence of thinking, ensures the achievement of course objectives, and fosters a sustained readiness for creative problem solving in academic, professional, and real-life situations.

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Рецензия

Организация образования: НАО «Павлодарский педагогический университет имени Әлкей Марғұлан»

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Тема: «Формирование и развитие дивергентного мышления» (курс для обучающихся)

Актуальность и значимость: Авторский курс «Формирование и развитие дивергентного мышления» является своевременным и востребованным образовательным продуктом, отвечающим современным требованиям развития системы образования. В условиях стремительных социальных, технологических и информационных изменений особую значимость приобретает формирование у обучающихся способности к творческому поиску решений, гибкости мышления, самостоятельности и инициативности. Курс направлен на развитие навыков, которые входят в число ключевых компетенций XXI века и необходимы для успешной адаптации обучающихся в условиях быстро меняющегося мира. Особую ценность представляет ориентация курса на системное развитие дивергентного мышления как основы креативности и инновационного подхода к решению учебных и жизненных задач.

Новизна: Новизна курса заключается в комплексном и системном подходе к развитию дивергентного мышления обучающихся различных возрастных категорий. Авторами разработана целостная модель формирования креативного мышления, включающая теоретические блоки, обучающие анимации, рефлексивные задания, игровые практики и систему уровневых заданий. Особого внимания заслуживает авторская структура содержания, основанная на последовательном развитии когнитивных навыков, поднавыков и мыслительных операций. Использование интерактивных форм работы, игровых технологий, проектной деятельности и практико-ориентированных заданий обеспечивает высокий уровень вовлеченности обучающихся и способствует эффективному формированию творческих способностей.

Практическая значимость: определяется его прикладным характером и возможностью непосредственного использования в образовательном процессе. Представленные материалы содержат широкий спектр заданий различного уровня сложности, позволяющих организовать работу как в урочной, так и во внеурочной деятельности. Курс может быть использован педагогами общеобразовательных школ, организациями дополнительного образования, психологами и специалистами, работающими с одаренными детьми. Предлагаемая система упражнений способствует развитию навыков генерации идей, принятия решений, прогнозирования, анализа, оценки результатов и проектирования альтернативных способов решения проблем. Практические задания ориентированы на формирование универсальных учебных действий и развитие функциональной грамотности обучающихся.

Последовательность стройность: содержание курса отличается логичностью построения и четкой внутренней структурой. Учебный материал распределен по возрастным категориям (1–4, 5–8 и 9–11 классы), что обеспечивает его соответствие возрастным и психологическим особенностям обучающихся. Тематические разделы выстроены по принципу постепенного усложнения: от знакомства с основами дивергентного мышления к развитию воображения, генерации идей, критического анализа, проектной деятельности и решению нестандартных задач. Каждая тема включает взаимосвязанные теоретические и практические компоненты, а также элементы рефлексии, что обеспечивает целостность образовательного процесса и последовательное формирование заявленных компетенций.

Научно-методическое обоснование: курс имеет прочную научно-методическую основу. Его содержание опирается на современные исследования в области психологии

творчества, когнитивного развития личности, педагогики креативности и теории решения нестандартных задач. Авторами использованы положения работ Дж. Гилфорда, Э. Торренса, К. Роджерса, Г.С. Альтшуллера и других известных исследователей в области творческого мышления и инновационного образования. Методический аппарат курса сочетает традиционные и современные образовательные технологии, включая игровые методы, проблемное обучение, проектную деятельность, интерактивные формы взаимодействия и рефлексивные практики. Представленная система заданий обеспечивает достижение заявленных образовательных результатов и соответствует современным педагогическим подходам.

Оформление: авторский материал оформлен на высоком методическом уровне. Структура курса отличается четкостью и удобством использования. Все разделы содержат необходимые компоненты: пояснительную записку, цели и задачи, ожидаемые результаты, учебно-тематический план, подробное описание содержания тем и систему практических заданий. Материал изложен доступным научно-педагогическим языком, последовательно и логично. Представленные задания имеют четкие формулировки и могут быть использованы как в традиционном, так и в электронном формате обучения.

Рекомендации по совершенствованию авторского материала: представленный курс имеет высокий научно-методический и практический потенциал. В качестве перспектив дальнейшего развития материала можно рекомендовать расширение диагностического инструментария для оценки динамики развития дивергентного мышления обучающихся, разработку цифрового банка интерактивных заданий и создание методических рекомендаций по адаптации курса для обучающихся с различными образовательными потребностями. Указанные рекомендации носят перспективный характер и не снижают общей высокой оценки представленного материала.

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Рецензия

Организация образования: НАО «Павлодарский педагогический университет имени Әлкей Марғұлан»

Авторы: Утилова А. М., Асаинова А. Ж., Шакенова Т. Ж., Кабиева С. Ж., Байдалинова Б.А.

Тема: «Формирование и развитие дивергентного мышления» (курс для обучающихся)

Актуальность и значимость: курс посвящен развитию дивергентного мышления как важнейшего компонента интеллектуального и творческого развития личности. Содержание программы направлено на решение одной из ключевых задач современного образования - подготовку обучающихся к деятельности в условиях неопределенности, необходимости выбора, принятия решений и поиска нестандартных подходов. Особую значимость представляет ориентация курса на развитие универсальных навыков, востребованных как в учебной деятельности, так и в дальнейшем профессиональном становлении обучающихся.

Новизна: заключается в разработке целостной системы формирования дивергентного мышления через специально организованную образовательную среду, включающую игровые технологии, интерактивные задания, проблемные ситуации, проектную деятельность и рефлексивные практики. Авторами предложена оригинальная модель построения содержания, основанная на последовательном развитии аналитических способностей, навыков принятия решений, прогнозирования, оценки результатов и разработки стратегий. Существенным преимуществом является интеграция современных цифровых и интерактивных форматов обучения, что повышает мотивацию обучающихся и делает образовательный процесс более эффективным.

Практическая значимость: определяется возможностью его непосредственного внедрения в образовательную деятельность школы. Материалы курса могут использоваться в рамках курсов по выбору, внеурочной деятельности, работы с одаренными детьми, а также при реализации программ развития функциональной грамотности и креативного мышления. Представленная система заданий позволяет педагогам организовывать работу с обучающимися различного уровня подготовки, обеспечивая условия для индивидуализации обучения и развития познавательной активности школьников.

Последовательность и стройность: структура курса отличается логичностью и методической завершенностью. Материал распределен по возрастным группам обучающихся и выстроен по принципу постепенного усложнения содержания. Каждый раздел имеет четко определенные цели, задачи и ожидаемые результаты. Теоретические материалы органично сочетаются с практическими заданиями и рефлексивными упражнениями, что обеспечивает целостность образовательного процесса. Система уровневых заданий позволяет учитывать возрастные и индивидуальные особенности обучающихся, обеспечивая постепенное формирование необходимых компетенций.

Научно-методическое обоснование: содержание курса имеет серьезное научно-методическое основание и базируется на современных исследованиях в области психологии творчества, педагогики креативности, когнитивного развития личности и теории решения нестандартных задач. Авторами использованы положения известных отечественных и зарубежных исследователей, что обеспечивает научную достоверность представленных материалов. Методический аппарат курса соответствует современным требованиям компетентностного подхода и ориентирован на достижение конкретных образовательных результатов.

Оформление: материал курса отличается высоким качеством оформления и методической проработки. Содержание курса структурировано, изложено последовательно и доступно для практического использования педагогами. Учебно-тематический план, описание содержания разделов, система практических заданий и ожидаемых результатов

представлены в логичной и удобной для работы форме. Материал соответствует требованиям, предъявляемым к современным учебно-методическим разработкам.

Рекомендации по совершенствованию авторского материала: курс представляет собой завершенный и качественный образовательный продукт. В дальнейшем возможна разработка дополнительных методических рекомендаций для педагогов по организации мониторинга результатов обучения. Данные рекомендации носят перспективный характер и не влияют на общую высокую оценку представленной разработки.

Вывод: считаю целесообразным рекомендовать данный курс к использованию в организациях образования, а также к распространению положительного педагогического опыта среди педагогического сообщества.

Эксперт:

Ф.И.О: Аденова Бибинур Олжановна

Должность: заместитель руководителя по учебно-воспитательной работе

Ученая степень/категория:

Место работы: КГУ «Областной многопрофильный лицей-интернат для одаренных детей» Управления образования Павлодарской области»



Рецензия

Организация образования: НАО «Павлодарский педагогический университет имени Элкей Марғұлан»

Авторы: Утилова А. М., Асаинова А. Ж., Шакенова Т. Ж., Кабиева С. Ж., Байдалинова Б.А.

Тема: «Формирование и развитие дивергентного мышления» (курс для обучающихся)

Актуальность и значимость: представленный курс направлен на развитие дивергентного мышления как одного из ключевых компонентов творческой и интеллектуальной деятельности школьников. В условиях обновления содержания образования особое значение приобретают умения анализировать ситуацию, предлагать несколько вариантов решения, оценивать их эффективность и прогнозировать последствия принимаемых решений. Курс способствует развитию данных навыков через специально разработанную систему теоретических и практических занятий, что делает его востребованным как для урочной, так и для внеурочной деятельности.

Новизна: заключается в создании многоуровневой системы развития дивергентного мышления обучающихся разных возрастных категорий. Авторами предложен комплексный подход, сочетающий элементы игровых технологий, проблемного обучения, проектной деятельности, рефлексивных практик и интерактивных форм взаимодействия. Особого внимания заслуживает разработанная структура заданий, ориентированная на поэтапное формирование аналитических способностей, навыков принятия решений, прогнозирования, оценки результатов и творческого поиска альтернативных решений.

Практическая значимость: представленные материалы могут быть эффективно использованы в работе педагогов организаций образования, классных руководителей и специалистов, работающих с одаренными детьми. Задания имеют четкую структуру, соответствуют возрастным особенностям обучающихся и позволяют организовать активную познавательную деятельность школьников. Практическая направленность курса способствует развитию у детей самостоятельности, инициативности, гибкости мышления и способности применять полученные знания в различных жизненных ситуациях.

Последовательность и стройность: курс отличается логичной структурой и продуманной организацией содержания. Материал распределен по возрастным категориям и построен по принципу постепенного усложнения. Каждый раздел имеет четкую цель и направлен на развитие конкретных навыков и поднавыков. Теоретические материалы органично дополняются практическими заданиями, а наличие рефлексивных блоков способствует осмыслению обучающимися собственного опыта и закреплению полученных знаний. Такая организация содержания обеспечивает последовательное формирование дивергентного мышления и устойчивый образовательный результат.

Научно-методическое обоснование: содержание курса имеет надежную научно-методическую основу и базируется на современных достижениях психологии творчества, педагогики, когнитивных наук и теории развития креативности. В программе прослеживается опора на научные подходы к формированию творческого мышления и развитию интеллектуальных способностей личности. Используемые методы и формы работы соответствуют современным образовательным технологиям и обеспечивают эффективное достижение поставленных целей.

Оформление: курс отличается высоким уровнем методической проработки и грамотным оформлением. Материал структурирован, изложен последовательно и доступно для практического применения. Учебно-тематическое планирование, описание тем, система практических заданий и ожидаемых результатов позволяют педагогу легко ориентироваться в содержании программы и эффективно использовать ее в образовательном процессе.

Рекомендации по совершенствованию авторского материала: курс является завершенной и качественной методической разработкой. В качестве дальнейших направлений развития можно рекомендовать расширение банка практических кейсов из реальной жизни, создание электронного методического сопровождения для педагогов. Данные рекомендации носят перспективный характер и не снижают общей положительной оценки представленного курса.

Вывод: курс имеет высокую практическую ценность и может быть рекомендован к широкому использованию в организациях образования.

Эксперт:

Ф.И.О: Текенов Арыстан Анатольевич

Должность: учитель математики

Ученая степень/категория: педагог-мастер

Место работы: КГУ «Специализированная школа-лицей для одаренных детей «Жас Дарын» Управления образования Павлодарской области»

Подпись:



Облыстық оқу-әдістемелік кеңесінің хаттамасынан үзінді

2026 жылғы 28 мамыр

Павлодар қаласы

Комиссия құрамы: 21

Төрайым: Б. Т. Аушахманова

Қатысушылар саны: 21

Күн тәртібі:

2026 жылғы облыстық оқу-әдістемелік кеңестің 2-тоқсанының отырысына педагогтердің инновациялық тәжірибе материалдарын сараптамадан өткізу.

Қаулы етті:

1. Ұсынылған педагогикалық бастамаларды оның жаңашылдық дәрежесін, практикалық маңыздылығын және оны облыстық білім беру мекемелерінің оқу-тәрбие үдерісіне енгізілсін (1-қосымша – басшылар, 2-қосымша – басшы орынбасарлары, 3-қосымша – педагогтер, 4-қосымша – РОӘК-ке ұсынылған жұмыстар, 5-қосымша – қайта қарастырылуға және ескертулерді жоюға ұсынылған жұмыстар).

Облыстық оқу-әдістемелік
кеңес төрайымы

Хатшы



Б. Т. Аушахманова

К. А. Мундуинова

Облыстың білім беру мекемелерінің оқу-тәрбие үдерісіне енгізілуге ұсынылған жұмыстар

3 Қосымша

№	Қала	Мектептің атауы	Педагогтің толық аты-жөні	Лауазымы	Материалдың атауы
1	Ақсу қаласы	"Абай атындағы жалпы орта білім беру мектебі" КММ	Аушанова Асем Тасболатовна	бастауыш сынып мұғалімі	«Жасоңғы интеллект арқылы бастауыш сынып оқушыларының сөйлеу дағдыларын дамыту» авторлық бағдарлама
2	Ақсу қаласы	"Абай атындағы жалпы орта білім беру мектебі" КММ	Бохой Зоя	тарих пәнінің мұғалімі	«Қазақтың ұлы кенелері» авторлық бағдарлама
3	Ақсу қаласы	"Абай атындағы жалпы орта білім беру мектебі" КММ	Усманова Гулманат Ессибековна	ағылшын тілінің мұғалімі	«Сөйлеу дағдысын қарқынды дамыту құралы ретінде ағылшын тілі сабақтарында жасалатын интеллект бағдарламаларын пайдалану» авторлық бағдарлама
4	Ақсу қаласы	"Абай атындағы жалпы орта білім беру мектебі" КММ	Зейіс Мейрамгул	бастауыш сынып мұғалімі	«Логикалық ойлау шығармашылығын дамыту» авторлық бағдарлама
5	Ақсу қаласы	Ақсу қаласы №8 орта мектебі	Бастепова Асар Кабырдуллитовна	қазақ тілі мен әдебиеті пәнінің мұғалімі	«Қазақ тілі сабағында тілдік тәртіп дағдыларын жетілдірудің тиімді әдіс-тәсілдері. Айтылым, тыңдалым, оқылдым, жазылдым»
6	Ақсу қаласы	Павлодар облысының білім беру басқармасы, Ақсу қаласы білім беру бөлімінің "Қалмаған ауылының орта мектебі" КММ	Ледникова Марина Аляксандерна	география пәнінің мұғалімі	Сборник тестовых заданий по географии в контексте для подготовки к МОДО (МОНИТОРИНГ ОБРАЗОВАТЕЛЬНЫХ ДОСТИЖЕНИЙ ОБУЧАЮЩИХСЯ) по географии (9 класс)
7	Ертіс ауданы	"Ағашорын ЖОББМ" КММ	Мырабиджан Куралей Каеркановна	бастауыш сынып мұғалімі	Развитие словесно-логического мышления у учащихся
8	Ертіс ауданы	"Ағашорын ЖОББМ" КММ	Салтыков Жанат Берсезетович	математика пәнінің мұғалімі	Математика в компьютерной графике 7 класс
9	Павлодар ауданы	Павлодар ауданы білім беру бөлімінің «Біріккен жалпы орта білім беру мектебі» КММ	Кусайнова Мария Нурлановна	дене шынықтыру пәнінің мұғалімі	Методы преподавания физической культуры при дистанционном обучении
10	Павлодар қаласы	Облыстық көп салалы дарынды балаларға арналған лицей интернат	Кабенов Даурен Исмаилович	математика пәнінің мұғалімі	"Ықтималдықтар теориясы және комбинаторика есептері"
11	Павлодар қаласы	«Павлодар қаласының Мұхтар Әуезов атындағы жалпы орта білім беру мектебі» КММ	Органова Замира Шаймуритовна, Мусабаева Назипа Жармағамбетовна, Темірбаева Азиза Кайноллаевна	учителя информатики	Авторская программа по теме "Электронный курс "Мир мультимедиа""
12	Павлодар қаласы	Павлодар облысы әкімінің Павлодар облысы білім беру басқармасынан «№4 арнайы мектеп - интернат» КММ	Фалко Надежда Александровна	дефектолог-мұғалім	«Система курсов "Развитие творческих способностей обучающихся с умеренными нарушениями интеллекта через трудовую деятельность"»
13	Павлодар қаласы	НАО «Павлодарский педагогический университет имени Олжаса Марғұлана»	Уткина Ангела Муратовна, Аспанова Алмагуль Жаковна, Шакирова Гаттигуль Жалкыбасовна, Кабанова С. Ж., Байдалинова Б. А.	ассистированный профессор высшей школы педагогики, кандидат психологических наук	«Формирование и развитие дивергентного мышления»

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ

РЕСПУБЛИКА КАЗАХСТАН

СВИДЕТЕЛЬСТВО
О ВНЕСЕНИИ СВЕДЕНИЙ В ГОСУДАРСТВЕННЫЙ РЕЕСТР
ПРАВ НА ОБЪЕКТЫ, ОХРАНЯЕМЫЕ АВТОРСКИМ ПРАВОМ

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