

THE USE OF DIGITAL EDUCATIONAL RESOURCES AND TECHNOLOGIES IN THE TEACHING OF NATURAL SCIENCES IN HIGHER AND SECONDARY SCHOOLS

Dr. Alexander E. Sobolev,

Assoc. Prof., Department of Chemistry,

Tver State Technical University;

All-Russian Association of chemistry teachers,

member of the Presidium;

The Assembly of the Teachers' Associations

of Tver region (Russia), chairman

MAIN FEATURES OF DERs

- **Interactivity**
- **Multimedia**
- **Module principle of construction**

**Federal Centre of
informational educational
resources**

WWW.FCIOR.RU



МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

ФЕДЕРАЛЬНЫЙ ЦЕНТР ИНФОРМАЦИОННО-ОБРАЗОВАТЕЛЬНЫХ РЕСУРСОВ

КАТАЛОГ

СЕРВИСЫ

О ПРОЕКТЕ

ФОРУМ

МЕТОДИЧЕСКИЕ МАТЕРИАЛЫ



ПРОСМОТР РЕСУРСОВ

Для воспроизведения электронных учебных модулей, размещенных в каталоге сайта, может потребоваться установка свободно распространяемого программного обеспечения – [проигрывателя ресурсов](#).



[Установить проигрыватель ресурсов версии 1.0 \(8216 Кб\) для ОС Windows](#)



[Установить проигрыватель ресурсов версии 2.2.2.138 \(33673 Кб\) для ALT Linux 4.1](#)

[Инструкция по установке проигрывателя ресурсов для ALT Linux 4.1 \(618Кб\)](#)

Каталог электронных образовательных ресурсов

Основное общее образование	2 939
Среднее (полное) общее образование	1 015
Начальное профессиональное образование	2 211
Среднее профессиональное образование	2 586
Дополнительное образование	16



НОВОСТИ

О ПРОЕКТЕ

Проект федерального центра

Статистика обращений к хранилищу
ФЦИОР



ФИ

Програ

- ☐ Б
- ☐ п

Тип мод

- ☐ И
- ☒ п
- ☐ К

Ограни

все

Сбро

Unified collection of DER

[http://school-
collection.edu.ru](http://school-collection.edu.ru)

>110.000 resources
absolutely free

Russian educational portal

www.school.edu.ru

(thematic collections – since 2002)

SUCCESSFULLY REALIZED PROJECTS

- Moscow e-school
- Russian e-school
- School league RosNANO
(1000 schools, 76 regions)

DER : for each school subject, for each
year of education, for each lesson
(information, training, control)

SUCCESSFULLY REALIZED PROJECTS

- Resources for blended learning
- eLearning courses
- open university resources
- open e-library resources
- instruments for creation and organization video content
- video content
- cloud applications
- platforms for evaluation of skills
- tools for tutorship, etc.

OLD IDEAS

- The world has changed...
- The Internet has penetrated into all
spheres of our life...
- Children live in social networks...

NEW IDEAS

- The school should showcase modern educational practices in the digital age.
- It should develop readiness for change, the ability to creative search and other “skills of the XXI century”.
- The school should teach teamwork.
- It should teach students responsibility for their own education achievements.

Why DERs are IMPORTANT?

- Modern school requires a high level of digital (information) competence from the teacher.
- Existing educational services and forms of implementation of distance educational problems do not always meet the needs of teachers and students.

Why DERs are IMPORTANT?

- Even the most modern technologies often simply duplicate the classical model of education, without changing the content of the school curriculum.

Why DERs are IMPORTANT?

- There is a clear gap between the information competencies of students and a large mass of teachers: they have different requirements for products, different scenarios for their use, different user experiences and expectations.

Our common goals

- be always get acquainted with successful practices in the field of e-learning,
- determine the ways of their implementation in the educational process in the conditions of growing requirements of the society of high technologies to education.

Our common tasks

- Understanding the existing experience of e-education in the country and in the world, related educational challenges, requests and opportunities.
- Introduction to e-learning and EdTech market offerings: services and products.

Our common tasks

- Consideration of the best cases of the use of digital technologies in the teachers' practice.
- Formation of the request of teachers' community to the (inter)subject content and the most effective formats for the implementation of educational programs using digital technologies.

Our common tasks

- Identification of new opportunities for partnership and cooperation of various educational organizations and projects.

I wish all us to be successful on this way

**THANK YOU VERY MUCH
FOR YOUR ATTENTION!**