

Educational Material



Educational Worksheets Repository

A comprehensive, organized collection of educational worksheets for all grades and subjects, with professional conversion tools and structured difficulty levels.

License MIT Grades 1-12 Curriculum Multiple Standards



Overview

This repository provides a scalable framework for educational worksheets organized by: - **Subject** (Mathematics, Science, English, etc.) - **Grade Level** (Grades 1-12) - **Topic** (Specific learning areas) - **Difficulty** (Easy, Medium, Hard)

Perfect for **teachers, tutors, homeschooling parents, and students!** ✨



Repository Structure

```
educational-worksheets/
├── 📖 worksheets/                # Main worksheet collection
│   ├── mathematics/             # Subject: Mathematics
│   │   ├── grade-01/           # Grade level
│   │   │   ├── topic-name/    # Mathematical topic
│   │   │   │   ├── easy/      # Difficulty: Beginner level
│   │   │   │   ├── medium/    # Difficulty: Intermediate level
│   │   │   │   └── hard/      # Difficulty: Advanced level
│   │   ├── grade-02/ ... grade-12/ # All grade levels
│   ├── science/                # Additional subjects (planned)
│   ├── english/                # Additional subjects (planned)
│   └── ... (other subjects)
├── 🔑 answer-keys/              # Complete answer guides
│   ├── mathematics/
│   │   ├── grade-01/ ... grade-12/
│   └── ... (matching worksheet structure)
└── 🛠 tools/                    # Professional conversion tools
```

		converters/	# HTML/PDF generation scripts
		scripts/	
		create-pdfs.sh	# PDF generation
		convert-to-html.sh	# HTML conversion
		generate-pdfs.sh	# Master script
		generators/	# Worksheet creation tools
	(planned)		
		templates/	# Reusable worksheet templates
		docs/	# Documentation and standards
		curriculum-standards/	# Curriculum alignment guides
		output/	# Generated files (HTML, PDF)



Quick Start



For Teachers:

1. **Browse** to your subject and grade level
2. **Choose** difficulty level appropriate for your students
3. **Use** conversion tools to create PDF versions for printing
4. **Check** answer keys for complete solutions



For Students:

1. **Find** your grade level and subject
2. **Start** with easy difficulty and progress upward
3. **Complete** self-assessment sections honestly
4. **Check** your work with provided answer keys



For Parents/Tutors:

- **Grade-appropriate** content for targeted learning
 - **Progressive difficulty** allows skill building
 - **Answer keys** support home learning
 - **Real-world applications** make learning meaningful
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Current Content



Mathematics - Grade 7 (Ready to Use!)

Decimals (Add and Subtract)

- **Location:** worksheets/mathematics/grade-07/decimals/medium/
- **File:** add-subtract-decimals.md

- **Topics:** Basic operations, word problems, estimation
- **Duration:** 45-60 minutes | **40 marks total**

Map Scale

- **Location:** worksheets/mathematics/grade-07/map-scale/medium/
- **File:** map-scale-problems.md
- **Topics:** Scale interpretation, distance conversion, real-world applications
- **Duration:** 45-60 minutes | **40 marks total**

Ratio and Direct Proportion

- **Location:** worksheets/mathematics/grade-07/ratios-proportions/medium/
- **File:** ratio-proportion-problems.md
- **Topics:** Simplifying ratios, equivalent ratios, proportion problems
- **Duration:** 45-60 minutes | **40 marks total**

Complete Answer Keys

- **Location:** answer-keys/mathematics/grade-07/
 - **File:** answer-keys.md
 - **Content:** Step-by-step solutions, teaching notes, assessment criteria
-

Conversion Tools

PDF Generation

```
cd tools/converters
./generate-pdfs.sh # Creates PDF versions of all worksheets
```

HTML Generation

```
cd tools/converters/scripts
./convert-to-html.sh # Creates web-friendly versions
```

Print Optimization

- Professional CSS styling for clean printing
 - A4 page optimization
 - Proper margins and font sizing
 - Chrome headless PDF generation
-

🌟 Educational Features

🎯 Curriculum Aligned

- ✅ Multiple curriculum standards supported
- ✅ Age-appropriate for each grade level
- ✅ Professional educational design

📚 Pedagogical Design

- 🌟 **Progressive difficulty** within each topic
- 🔄 **Variety of question types** (computation → application → problem-solving)
- 🌍 **Real-world contexts** (shopping, travel, science, cooking)
- 🇮🇹 **Self-assessment** sections for student reflection

👩🏫 Teacher Resources

- 📋 **Clear learning objectives** for each worksheet
 - ⌚ **Time estimates** for lesson planning
 - 📝 **Marking schemes** with point allocations
 - 💡 **Extension ideas** for differentiation
-

🎓 Difficulty Level Guide

🟢 Easy Level

- Introduction to new concepts
- Basic practice problems
- Step-by-step guidance
- Suitable for initial learning

🟡 Medium Level

- Application of learned concepts
- Mixed problem types
- Real-world scenarios
- Standard curriculum level

Hard Level

- Advanced problem solving
 - Multi-step challenges
 - Extension activities
 - Enrichment for advanced students
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Contributing

We welcome contributions to expand this educational resource!

Add New Content

- Create worksheets for missing grades/subjects
- Add difficulty variations
- Develop new topics

Improve Existing Content

- Report issues or suggestions
- Enhance question quality
- Update curriculum alignment

Enhance Tools

- Improve conversion scripts
- Add new output formats
- Create worksheet generators

Contact




- **Issues:** Use GitHub Issues for bug reports
 - **Suggestions:** Open discussions for new ideas
 - **Direct contact:** For educational partnerships
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License

This project is licensed under the **MIT License** - see the [LICENSE](#) file for details.

Educational Use

-  **Free for educational use** in schools and homes

-  **Modify and adapt** to suit your needs
 -  **Share with colleagues** and other educators
 -  **Commercial use allowed** with attribution
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Future Plans

Content Expansion

- ☐ Complete Grade 1-12 Mathematics coverage
- ☐ Add Science worksheets (Physics, Chemistry, Biology)
- ☐ Include English Language Arts materials
- ☐ Develop other subject areas

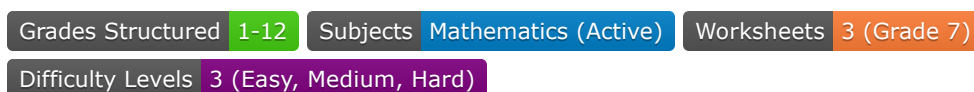
Tool Enhancement

- ☐ Automated worksheet generators
- ☐ Interactive web versions
- ☐ Assessment and tracking tools
- ☐ Multi-language support


Community Features

- ☐ Teacher sharing platform
 - ☐ Student progress tracking
 - ☐ Curriculum mapping tools
 - ☐ International standards alignment
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Current Stats



 **Ready to transform education? Start exploring and contributing!**

Created with  for educational excellence