

TRANSFORMING IDEAS INTO VISUAL LEARNING RESOURCES

1. SUBJECT MATTER EXPERT DETAILS

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2. INTRODUCTION

Napkin AI is an AI-powered visual communication tool that converts written text and ideas into diagrams, flowcharts, mind maps, infographics and other visual representations. It helps users organize information and communicate complex concepts through visuals. For teachers, Napkin AI can support lesson planning, preparation of teaching-learning materials (TLMs), concept explanation and classroom presentations. Students can use it to organize ideas, prepare assignments, develop projects and present their learning creatively. The tool can be particularly useful in competency-based education, where learners are encouraged to understand concepts, establish relationships, solve problems and communicate their ideas.

3. OBJECTIVES

By the end of this tutorial, you will be able to:

- Understand the basic features and applications of Napkin AI.
- Create and edit educational visuals from written content.
- Prepare subject-specific teaching and learning resources.
- Use effective instructions to organize visual content.
- Integrate AI-generated visuals into classroom activities.
- Verify information and use AI responsibly.

4. GETTING STARTED WITH NAPKIN AI

Step 1: Access the platform

1. Visit the official Napkin AI website.
2. Create an account using an available sign-in method.
3. Complete the onboarding process and open a new document.
4. Explore the text editor, visual generation and editing options.

Account creation and visual generation are primarily designed for desktop use. Teachers should check current age requirements and school policies before involving students.

Step 2: Understand the interface

The main workflow involves:

- Text editor: Write or paste educational content.
- Visual generation: Select text and generate suitable visual representations.
- Visual selection: Review available designs and choose an appropriate layout.
- Editing: Customize colors, fonts, labels and arrangements.
- Exporting: Download visuals for classroom use or presentations.

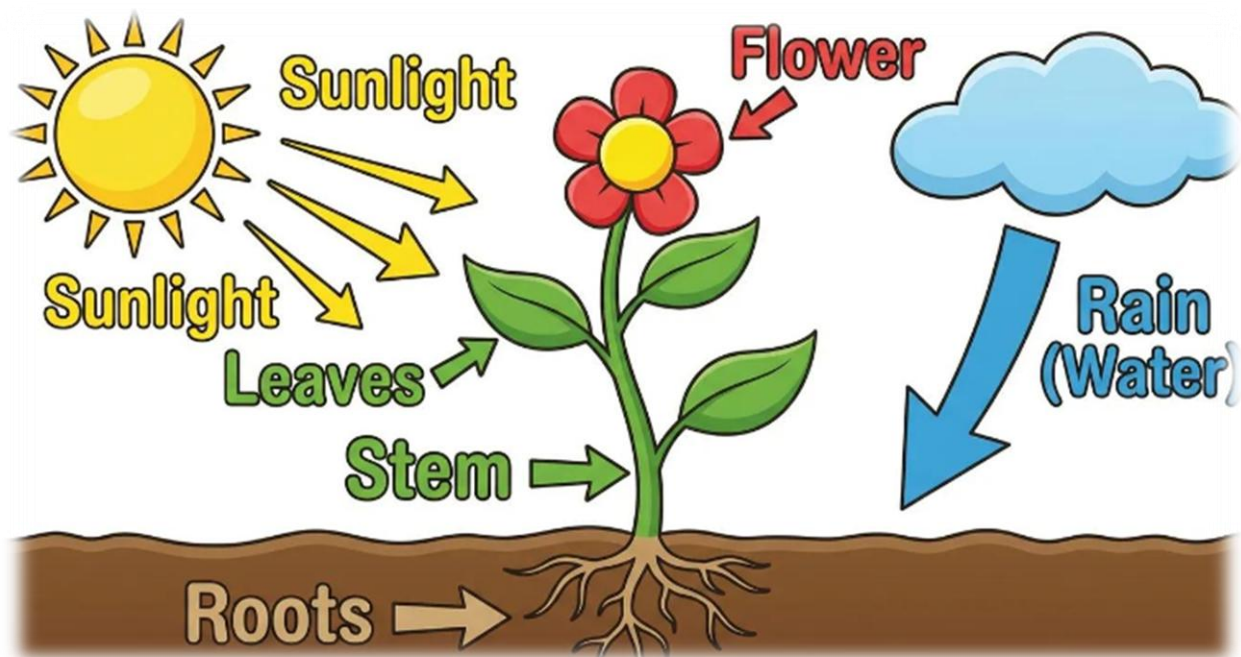
Napkin AI also supports importing documents and exporting visuals in formats such as PNG, PDF, PPT and SVG, subject to plan limitations.

Step 3: Create your first visual

Consider the following paragraph for a Grade 5 Science lesson:

"Plants need sunlight, water, air and nutrients to grow. Roots absorb water and minerals from the soil. Leaves prepare food through photosynthesis. Flowers help many plants reproduce and produce seeds."

1. Open a new document.
2. Paste the paragraph into the editor.
3. Select the relevant text and use the visual generation option.
4. Review the generated diagrams and choose a suitable representation.
5. Edit the labels, layout and colors.
6. Check the scientific accuracy and export the final visual.



5. NAPKIN AI FOR TEACHERS

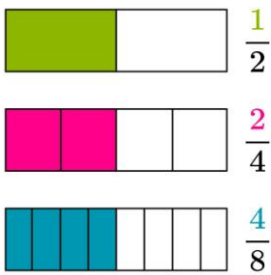
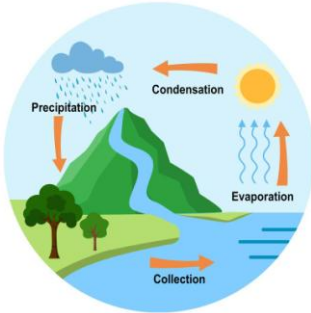
A. Lesson planning

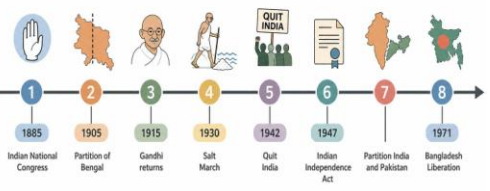
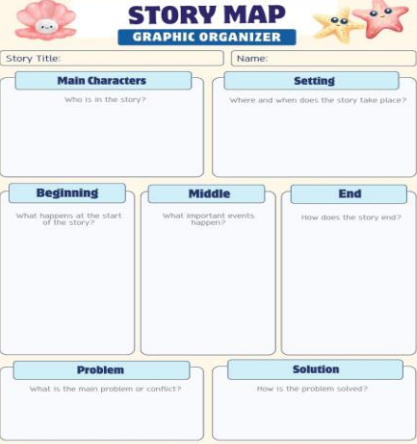
Teachers can use Napkin AI to convert lesson notes, learning objectives and textbook explanations into visual teaching resources. For example, while preparing a Grade 5 Science lesson on the water cycle, a teacher can create a diagram showing evaporation, condensation, precipitation and collection.

The visual can be used at different stages of the lesson:

- Introduction: Introduce the topic through a visual.
- Explanation: Explain the sequence and relationships between concepts.
- Practice: Ask students to interpret or reproduce the diagram.
- Assessment: Use the visual to check conceptual understanding.

B. Subject-specific applications

 The image shows three horizontal bars representing fractions. The first bar is divided into two equal parts, with the left part shaded green, representing $\frac{1}{2}$. The second bar is divided into four equal parts, with the first two parts shaded pink, representing $\frac{2}{4}$. The third bar is divided into eight equal parts, with the first four parts shaded blue, representing $\frac{4}{8}$.	<u>MATHEMATICS</u> Teachers can create visual representations of place value, fractions, decimals, geometric shapes, measurement, patterns and mathematical problem-solving steps. Example: Develop a fraction concept map showing numerator, denominator, equivalent fractions and everyday applications.
THE WATER CYCLE  The diagram illustrates the water cycle in a circular flow. At the top, a sun is shown with an arrow pointing to a cloud labeled 'Condensation'. An arrow points from the cloud to a mountain labeled 'Precipitation'. An arrow points from the mountain down to a lake labeled 'Collection'. An arrow points from the lake up to the sun, with wavy lines representing water vapor, labeled 'Evaporation'.	<u>SCIENCE</u> Visuals can explain photosynthesis, the water cycle, the human digestive system, food chains, states of matter and simple electrical circuits. Example: Prepare a flowchart showing the stages of the water cycle and the role of solar energy.

Indian Independence Movement  Made on timeline.com	SOCIAL SCIENCE Teachers can prepare historical timelines, geographical diagrams, government structure charts, resource maps and civic education infographics. Example: Create a chronological timeline of major events in India's freedom movement using verified textbook information.
	LANGUAGES Teachers can develop story maps, grammar charts, vocabulary organizers, sentence structures and writing process diagrams. Example: Convert a short story into a visual sequence showing its setting, characters, problem, important events and conclusion.

C. Remedial and differentiated teaching

Teachers can prepare simplified visuals for learners who need additional support and more detailed concept maps for advanced learners. For example, while teaching fractions, some students may benefit from shaded fraction bars, while others may be ready to explore equivalent fractions, decimals and percentages. Visuals should complement teacher explanations, practical activities and individual support rather than replace them.

6. RESPONSIBLE AND ETHICAL USE

AI-generated educational materials must be reviewed before classroom use. Teachers and students should follow these essential practices:

- Verify facts, calculations, diagrams and historical dates against reliable sources.
- Avoid uploading confidential information or identifiable student records.
- Follow age requirements, school policies and applicable privacy regulations.
- Respect copyright when using textbook material and other resources.
- Encourage students to develop their own ideas and explain their work.
- Avoid treating AI-generated content as a substitute for independent thinking.
- Ensure that visuals are readable and accessible to learners.

Napkin AI's published privacy information includes data-use controls and guidance on children's privacy. Teachers should review the current privacy policy and AI transparency information before using the platform in educational settings.

7. CONCLUSION

Napkin AI provides teachers and students with an accessible way to transform written information into visual learning resources. It can support lesson planning, concept explanation, revision, student projects and classroom presentations. For teachers, the platform can reduce the time spent manually preparing certain visual materials and provide new ways to organize instructional content. For students, it offers opportunities to develop creativity, digital literacy, conceptual understanding and visual communication skills. Its educational value depends on thoughtful use, accurate source material, human verification and meaningful classroom integration. AI should support teachers' professional judgment and students' independent thinking, not replace them.

8. REFERENCES

- Napkin AI – Official website, <https://www.napkin.ai/>
- SCERT Uttarakhand Hackathon 3.0 Concept Guidelines, <https://innovateuttarakhand.com/event/hacathon-30>