Complete AI Literacy Curriculum

10 Lessons for All Levels (Grade 6 - Graduate+)

Course Overview

This curriculum is designed to take learners from AI novice to informed practitioner, regardless of their starting point. Each lesson builds upon previous concepts while providing entry points for learners at different stages of AI familiarity.

Duration: 10 weeks (1 lesson per week)
Format: Each lesson includes theory, practical activities, and reflection
Audience: Grade 6 through Graduate+ (content scales with learner engagement)

Lesson 1: What is AI? Demystifying Artificial Intelligence

Learning Objectives

- Define artificial intelligence in simple terms
- Distinguish between AI, machine learning, and automation
- Identify AI in everyday life

Core Content

For Beginners: AI is computer systems that can perform tasks that typically require human intelligence - like recognizing faces, understanding speech, or making decisions.

For Advanced: Explore the technical definition of AI as systems that perceive environments, process information, and take actions to maximize success in achieving goals.

Activities

- **All Levels:** "AI Detective" - Find 10 examples of AI in your daily routine
- **Intermediate+:** Compare narrow AI vs. general AI concepts
- **Advanced:** Research and present on different AI paradigms (symbolic, connectionist, evolutionary)

Key Terms

Intelligence, Algorithm, Machine Learning, Narrow AI, General AI

Reflection Questions

1. How has AI already changed your life without you realizing it?
2. What makes human intelligence different from artificial intelligence?

Lesson 2: The Building Blocks - How AI Actually Works

Learning Objectives

- Understand basic concepts of data, algorithms, and training
- Explain how machines "learn" from examples
- Recognize different types of AI systems

Core Content

For Beginners: AI learns by looking at lots of examples, finding patterns, and making predictions - like learning to recognize cats by seeing millions of cat photos.

For Advanced: Deep dive into supervised vs. unsupervised learning, neural networks, and the role of big data in AI development.

Activities

- **All Levels:** "Pattern Detective" - Practice pattern recognition with visual puzzles
- **Intermediate+:** Simple decision tree creation exercise
- **Advanced:** Explore a basic neural network visualization tool

Key Terms

Data, Training, Algorithm, Pattern Recognition, Neural Networks, Machine Learning

Assessment

Create a flowchart showing how an AI system learns to perform a specific task

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Lesson 3: AI in Action - Real-World Applications Today

Learning Objectives

- Identify AI applications across different industries
- Understand how AI solves real problems
- Evaluate the effectiveness of AI solutions

Core Content

Current AI Applications:

- Healthcare: Diagnostic imaging, drug discovery
- Transportation: Self-driving cars, traffic optimization
- Entertainment: Recommendation systems, content creation
- Business: Fraud detection, customer service
- Education: Personalized learning, automated grading

Activities

- **All Levels:** Industry exploration project - choose one field and research AI applications
- **Intermediate+:** Case study analysis of successful AI implementation
- **Advanced:** Cost-benefit analysis of AI adoption in specific industries

Discussion Topics

- Which AI applications surprise you most?
- What problems in your community could AI help solve?

Lesson 4: The Good, The Bad, and The Biased - AI Ethics

Learning Objectives

- Identify ethical concerns in AI development and deployment
- Understand algorithmic bias and its impacts
- Develop frameworks for ethical AI decision-making

Core Content

Key Ethical Issues:

- Bias and fairness in AI systems
- Privacy and data protection
- Job displacement and economic impact
- Transparency and explainability
- Accountability and responsibility

Activities

- **All Levels:** Bias detection exercise using hypothetical scenarios

- **Intermediate+:** Debate: "Should AI make life-or-death decisions?"
- **Advanced:** Design ethical guidelines for an AI company

Case Studies

- Facial recognition bias in law enforcement
- Hiring algorithm discrimination
- Social media algorithmic amplification

Reflection

What principles should guide AI development in society?

Lesson 5: Hands-On AI - Using AI Tools Effectively

Learning Objectives

- Navigate popular AI tools and platforms
- Develop effective prompting and interaction strategies
- Understand capabilities and limitations of current AI tools

Core Content

Popular AI Tools Overview:

- Text: ChatGPT, Claude, Copilot
- Image: DALL-E, Midjourney, Stable Diffusion
- Code: GitHub Copilot, Replit
- Productivity: Notion AI, Grammarly

Practical Activities

- **All Levels:** AI tool exploration - try 3 different AI tools for different tasks
- **Intermediate+:** Prompt engineering workshop
- **Advanced:** Create a workflow integrating multiple AI tools

Best Practices

- How to write effective prompts
- Fact-checking AI outputs
- Understanding when to use (and not use) AI assistance

Lesson 6: AI and Society - Impact on Jobs, Privacy, and Power

Learning Objectives

- Analyze AI's impact on employment and the economy
- Understand privacy implications of AI systems
- Examine how AI affects power structures in society

Core Content

Economic Impact:

- Jobs that AI may replace vs. jobs it creates
- The importance of reskilling and adaptation
- Economic inequality and the AI divide

Privacy Concerns:

- Data collection and surveillance
- Predictive analytics and personal autonomy
- Digital rights and consent

Activities

- **All Levels:** Future job market research project
- **Intermediate+:** Privacy audit of personal AI tool usage
- **Advanced:** Policy proposal for AI regulation

Discussion Questions

- How can society ensure AI benefits everyone, not just the wealthy?
- What rights should people have regarding AI that affects them?

Lesson 7: AI Creativity and Human Collaboration

Learning Objectives

- Explore AI's role in creative processes
- Understand human-AI collaboration models
- Develop skills for effective human-AI partnerships

Core Content

AI in Creative Fields:

- Art and design generation
- Music and audio creation
- Writing and content development
- Scientific research and discovery

Collaboration Models:

- AI as tool vs. AI as partner
- Augmented intelligence vs. artificial intelligence
- Maintaining human agency and creativity

Creative Projects

- **All Levels:** Create something using AI assistance (art, story, presentation)
- **Intermediate+:** Compare human-only vs. human-AI collaborative outputs
- **Advanced:** Design a human-AI collaboration framework for a specific field

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Lesson 8: The Future of AI - Trends and Possibilities

Learning Objectives

- Identify emerging AI trends and technologies
- Evaluate predictions about AI's future development
- Develop informed perspectives on AI's trajectory

Core Content

Emerging Technologies:

- Large Language Models and their evolution
- Artificial General Intelligence (AGI) possibilities
- AI hardware advances (quantum computing, neuromorphic chips)
- Brain-computer interfaces

Future Scenarios:

- Optimistic AI futures

- Potential risks and challenges
- Preparing for uncertainty

Activities

- **All Levels:** AI future timeline creation
- **Intermediate+:** Technology trend analysis and prediction
- **Advanced:** Research paper on a specific AI advancement

Lesson 9: Becoming AI-Ready - Skills for an AI World

Learning Objectives

- Identify skills that remain valuable in an AI-enhanced world
- Develop strategies for continuous learning about AI
- Create personal AI integration plans

Core Content

Essential Human Skills:

- Critical thinking and evaluation
- Creativity and innovation
- Emotional intelligence and empathy
- Complex problem-solving
- Adaptability and learning agility

AI Literacy Skills:

- Understanding AI capabilities and limitations
- Effective human-AI interaction
- AI tool selection and evaluation
- Ethical AI usage

Personal Development

- **All Levels:** Skills assessment and development plan
- **Intermediate+:** AI learning resource compilation
- **Advanced:** Professional development strategy for AI integration

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Lesson 10: Taking Action - Your Role in Shaping AI's Future

Learning Objectives

- Synthesize learning from the entire curriculum
- Develop action plans for continued AI engagement
- Understand individual and collective roles in AI governance

Core Content

Ways to Engage:

- Staying informed about AI developments
- Participating in AI policy discussions
- Choosing ethical AI products and services
- Contributing to AI research and development

Final Project Options:

- **All Levels:** AI impact presentation to community group
- **Intermediate+:** AI ethics guidelines for an organization
- **Advanced:** Research proposal or policy recommendation

Synthesis Activities

- Course reflection and key takeaways
- Personal AI philosophy statement
- Action plan for continued learning and engagement

Assessment and Evaluation

Ongoing Assessment

- Weekly reflection journals
- Peer discussions and debates
- Practical AI tool usage exercises
- Current events analysis

Summative Assessment Options

Choose based on learner level:

- **Basic:** Portfolio of AI explorations and reflections
- **Intermediate:** Research project on AI application or impact
- **Advanced:** Original contribution (research, policy proposal, or creative project)

Resources for Continued Learning

Books

- "Weapons of Math Destruction" by Cathy O'Neil
- "Race After Technology" by Ruha Benjamin
- "Human Compatible" by Stuart Russell
- "The Alignment Problem" by Brian Christian

Online Resources

- AI Ethics courses (MIT, Stanford)
- AI safety research organizations (Future of Humanity Institute, MIRI)
- Industry reports (AI Index, State of AI)
- News sources (AI News, VentureBeat AI)

Tools for Exploration

- Scratch for Machine Learning
- Teachable Machine by Google
- AI Dungeon for creative AI
- Kaggle Learn for data science

Adaptability Notes

This curriculum is designed to scale with learner sophistication:

For Younger Learners (Grades 6-8): Focus on basic concepts, ethical reasoning, and creative applications. Use more visual aids, hands-on activities, and concrete examples.

For High School (Grades 9-12): Add technical depth, research components, and real-world problem-solving. Include more independent exploration and critical analysis.

For College/Adult Learners: Incorporate research projects, policy analysis, and professional applications. Encourage deep dives into areas of personal or professional interest.

For Graduate+ Learners: Focus on cutting-edge research, interdisciplinary connections, and original contributions to the field.

The key is meeting learners where they are while providing pathways for deeper engagement based on interest and capability.