Field Agent

U.S. Standards Crosswalk

This standards crosswalk helps curriculum leaders, educators, instructional designers, and district or state reviewers understand how the Field Agent Minecraft Education lesson and student workbook connect to widely used U.S. learning frameworks for Grades 3-7.

The document maps the lesson's opening activity, gameplay, facilitated discussion, reflection, and student workbook activities to the ISTE Standards for Students, the Revised CSTA PK-12 Computer Science Standards Draft 3.0, the AI4K12 Grade Band Progression Charts, and relevant Common Core English Language Arts anchor standards. Each activity table identifies the framework and code, summarizes the expectation, and explains the lesson evidence supporting the alignment.

Use this crosswalk when reviewing curriculum fit, planning instruction, preparing internal approvals, or adapting Field Agent for a local program. Begin with the scope and framework overview, then use the activity tables to identify the strongest standards connections for the planned lesson sequence. The coverage summary distinguishes standards that are strongly, partially, or not directly addressed. Because this is an independent alignment rather than an official standards endorsement, verify the mappings against district and state adoption before formal use.

Note: Field Agent is a simulated AI-literacy experience. No artificial intelligence or machine-learning model is used during gameplay. The Agent follows programmed game rules that represent selected ideas about data, patterns, testing, and human review. The simulation simplifies how real AI systems are developed and used.

Standards Crosswalk

Field Agent - Minecraft Education Educator Guide and Student Workbook

Alignment to ISTE, Revised CSTA Draft 3.0, AI4K12, and Common Core ELA

Field	Detail
Scope	National frameworks: ISTE Standards for Students; Revised CSTA PK-12 Computer Science Standards Draft 3.0 (2025); AI4K12 Grade Band Progression Charts; and Common Core State Standards for English Language Arts, Speaking and Listening and Language.
Grade band	Grades 3-7 (ages 8-12). CSTA Draft 3.0 uses discrete elementary expectations through Grade 5 and a middle-school band. Use elementary codes for Grades 3-5 and middle-school codes for Grades 6-7.
Source materials	Minecraft Education Field Agent Educator Guide; Minecraft Education Field Agent Student Workbook.
Nature of this document	An independent alignment analysis. The mappings were inferred from observable student actions and explicit lesson content using professional judgment. They are not formal validation or endorsement by ISTE, CSTA, AI4K12, NGA Center, or CCSSO.

1. Frameworks referenced

The crosswalk uses frameworks that address technology literacy, computer science and AI learning, and communication skills.

Framework	Focus in this crosswalk
ISTE Standards for Students	Technology fundamentals, evaluation of information, design and refinement, data sets, and computational thinking.
CSTA Draft 3.0	Machine learning concepts, training-data quality, model outputs, data accuracy and completeness, and human responsibility. Fairness and bias are addressed only in limited reflection and checklist prompts.
AI4K12	Big Idea 3: Learning and Big Idea 5: Societal Impact, with limited connections to Big Idea 2: Representation and Reasoning.

Common Core ELA	Collaborative discussion, interpretation of information presented in diverse formats, presentation of findings, and academic vocabulary.

How to read the activity tables: Each row lists a framework and code, a concise statement of the expectation, and the specific evidence in the activity that supports the alignment. Full CSTA wording used in the analysis appears in Appendix A. Field Agent is a simulated AI-literacy experience: students do not use an AI tool or train a live machine-learning model during the lesson.

2. Pre-game activities

Essential Question and The Confused Robot

Students compare vague, overly narrow, and clear step-by-step instructions, then connect the results to information supplied to a system, outputs, and human responsibility.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.1.d	Understand fundamental concepts of how technology works and thoughtfully explore emerging technologies.	Students model how a system's behavior depends on the information and instructions supplied by people.
ISTE · 1.5.d	Understand how automation works and use algorithmic thinking to develop sequences of steps.	Students compare unclear and complete sequences and observe how precision changes the result.
CSTA · E3-ALG-02	Investigate how AI models can evolve when new data is added to a training set.	The activity establishes the core idea that missing or limited information leads to mistakes and that added information can improve outcomes.
AI4K12 · Big Idea 3: Learning	Computers learn from data; the quality and coverage of examples influence what is learned.	Students experience a human simulation of learning from examples and instructions.
CCSS · CCRA.SL.1	Prepare for and participate effectively in collaborative discussions.	Students give instructions, observe results, and discuss what changed across rounds.
CCSS · CCRA.L.6	Acquire and use general academic and domain-specific words and phrases.	Students begin using the key terms artificial intelligence (AI), data, debug, input, output, train, and test.

Vocabulary Review

Students review and apply the educator guide's key vocabulary: artificial intelligence (AI), data, debug, input, output, train, and test. The additional vocabulary terms are model, predict, and prompt.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.1.d	Understand fundamental technology concepts and thoughtfully explore emerging technologies.	Vocabulary supports an accurate conceptual model of how AI systems use data and produce outputs.
CCSS · CCRA.L.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases.	Students review definitions and use context to distinguish related AI and data terms.
CCSS · CCRA.L.6	Acquire and use general academic and domain-specific words and phrases.	Students use the key terms artificial intelligence (AI), data, debug, input, output, train, and test. They may also use model, predict, and prompt as additional vocabulary.

3. While-playing activities

Barn Raising

Students create examples for differently sized animal gates, observe the Agent, train it, and evaluate the result.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.5.b	Collect data or identify relevant data sets, use digital tools to analyze them, and represent data to support problem-solving.	Students identify size-based examples that the Agent needs in order to route animals through appropriate gates.
CSTA · E3-ALG-02	Investigate how AI models can evolve when new data is added to a training set.	Students observe initial behavior, add examples, and observe how the Agent's behavior changes.
CSTA · E5-ALG-02	Analyze relationships between the properties of training data and an AI model's output.	Gate examples vary by animal size, allowing students to connect the range of examples to the Agent's output.

AI4K12 · Big Idea 3: Learning	A learning system's performance depends on the examples used during training.	Students train through examples, test the result, and consider what additional examples could improve performance.
CCSS · CCRA.SL.2	Integrate and evaluate information presented in diverse media and formats.	Students interpret dialogue, visual gate examples, and the Agent's observable behavior.

Fence Building

Students provide examples for animals with different jumping abilities and examine how overly narrow data affects performance.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.5.b	Identify relevant data sets and use data to support problem-solving and decision-making.	Students determine that examples must represent animals with different jumping abilities.
CSTA · E5-ALG-02	Analyze relationships between the properties of training data and an AI model's output.	Students connect narrow or incomplete examples to poor results and more varied examples to improved performance.
CSTA · MS-ALG-07	Investigate ways to improve the accuracy of an AI model and reduce bias by refining the quality of examples and non-examples in its training data.	Older learners test outputs, identify missing examples, propose improvements, and consider whether better examples improve accuracy.
CSTA · E3-DAA-09	Evaluate numeric and non-numeric data for accuracy and completeness.	Students check whether the Agent has complete and appropriate information about fence heights and animal abilities.
AI4K12 · Big Idea 3: Learning	Training-data coverage influences accuracy and generalization.	The activity demonstrates why a system trained on only one type of example may not work for other cases.
CCSS · CCRA.SL.4	Present information, findings, and supporting evidence clearly.	Facilitated questions ask students to explain errors, changes, and additional data they would provide.

Crop Harvesting

Students distinguish crop growth stages, train the Agent using examples, and review the Agent's decisions.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.3.b	Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.	Students assess whether the Agent harvests crops at the correct growth stage and identify mistakes.
ISTE · 1.5.b	Identify relevant data sets and use data to support problem-solving.	Students use crop-stage information as the relevant data for the harvesting decision.
CSTA · E5-ALG-02	Analyze relationships between the properties of training data and an AI model's output.	Students connect accurate examples of crop stages to the Agent's harvesting choices.
CSTA · MS-ALG-06	Make informed predictions about the hidden processes and functions of AI and other complex systems.	Students infer what the Agent may be prioritizing by comparing examples, observed decisions, and outputs.
AI4K12 · Big Idea 2: Representation and Reasoning	Representations support reasoning and decision-making.	Crop stages function as simplified categories used to support a decision. This is a limited conceptual connection.
CCSS · CCRA.SL.2	Integrate and evaluate information presented in diverse media and formats.	Students interpret growth-stage visuals, scores, gameplay feedback, and the Agent's performance.

4. Post-game and student workbook activities

Facilitated Reflection and Lesson Review

Students explain how AI learns, why data quality matters, how humans are involved, and how AI can support problem-solving.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.1.d	Understand fundamental technology concepts and thoughtfully explore emerging technologies.	Students explain how AI uses data and why humans must guide and check results.
CSTA · MS-CAS-43	Analyze how the decisions humans make when using computing technologies	Students connect human choices about data and interpretation to

	influence ethical and social outcomes.	accuracy, fairness, and responsible use.
AI4K12 · Big Idea 5: Societal Impact	AI systems have benefits, limitations, and consequences shaped by human choices.	Students discuss human responsibility and how inaccurate or biased outputs can affect decisions.
CCSS · CCRA.SL.1	Participate effectively in collaborative discussions.	Students use debrief prompts to build on gameplay observations and classmates' ideas.
CCSS · CCRA.SL.4	Present information and findings with relevant evidence.	Students explain what happened, what went wrong, and how improved data changed outcomes.

AI Output Review Checklist (Optional Extension)

Students may use the optional checklist, with teacher guidance and in accordance with school or district policies, to evaluate an AI output for accuracy, completeness, fairness, clarity, usefulness, and trustworthiness. Students do not use AI tools during the Field Agent lesson itself.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.3.b	Evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.	The checklist requires students to verify accuracy, identify missing information, consider fairness, and decide whether the result is trustworthy.
CSTA · MS-ALG-07	Investigate ways to improve AI accuracy and reduce bias by refining training examples.	Students identify limitations and propose better examples or data as a response to inaccurate or unfair outputs.
CSTA · MS-DAA-29	Analyze how decisions made while working with data can lead to biased data, misleading conclusions, and compromised AI models.	Students recognize that limited or biased data and human choices can produce incomplete, inaccurate, or unfair results.
CSTA · MS-CAS-43	Analyze how human decisions when using computing technologies influence ethical and social outcomes.	The checklist positions the human as responsible for checking, correcting, and deciding whether to use an output.
AI4K12 · Big Idea 5: Societal Impact	AI outputs should be evaluated for fairness, reliability, and human impact.	Students explicitly review fairness and decide whether they would trust or share the output.

CCSS · CCRA.SL.3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.	When used in discussion, students critique the reasoning and support within an AI-produced response. This is a partial transfer to AI output rather than a speaker.

Knowledge Check and Exit Tickets

Students explain how AI uses data and examples to identify patterns and produce outputs, how missing or unclear information can affect results, and why people must review and correct outputs. Workbook responses also distinguish inputs, outputs, and human checks.

Framework · Code	Standard / competency	How the activity addresses it
CSTA · E3-ALG-02	Investigate how AI models can evolve when new data is added to a training set.	Students explain how adding broader examples can improve an Agent trained on narrow examples.
CSTA · E5-ALG-02	Analyze relationships between training-data properties and an AI model's output.	Assessment items ask students to connect incomplete or limited data to mistakes or incomplete results. Fairness is addressed separately in the optional AI Output Review Checklist.
CSTA · E3-DAA-09	Evaluate numeric and non-numeric data for accuracy and completeness.	Students identify whether the information or examples are complete enough to support a decision.
AI4K12 · Big Idea 3: Learning	AI systems learn patterns from examples and can improve when training data improves.	Students describe the cycle of good data, learning, results, review, and improvement.
CCSS · CCRA.L.6	Acquire and use domain-specific language.	Students use terms such as artificial intelligence (AI), data, input, output, train, test, and human check in written responses.
CCSS · CCRA.SL.4	Present information and findings with relevant evidence.	Exit tickets require concise explanations grounded in the gameplay experience.

Optional Extension: Code Yard

Students may use MakeCode to create, customize, and decorate the yard after completing the lesson activities.

Framework · Code	Standard / competency	How the activity addresses it
ISTE · 1.4.a	Know and use a deliberate design process for generating ideas, testing theories, creating artifacts, or solving authentic problems.	Code Yard may support iterative creation only when an educator adds an explicit plan-create-test-revise task. The provided extension itself asks students to create, customize, and decorate the yard.
ISTE · 1.5.d	Understand automation and use algorithmic thinking to develop sequences of steps.	Students may use MakeCode in Code Yard. No specific coded sequence or algorithmic-thinking assessment is required by the provided lesson materials.
CSTA · Programming standards	No individual programming code is claimed from the core lesson.	A separate alignment should be completed if a specific Code Yard task, code sequence, or assessment is added.

5. Coverage summary

Strongly covered

CSTA E3-ALG-02: Investigate how AI models can evolve when new data is added to a training set.
CSTA E5-ALG-02: Analyze relationships between the properties of training data and an AI model's output.
CSTA MS-ALG-07: Investigate ways to improve the accuracy of an AI model and reduce bias by refining the quality of examples and non-examples in its training data.
CSTA E3-DAA-09: Evaluate numeric and non-numeric data for accuracy and completeness.
CSTA MS-DAA-29: Analyze how decisions made during data collection, data processing, data analysis, and data presentation can lead to biased data, misleading conclusions, and compromised AI models.
CSTA MS-CAS-43: Analyze how the decisions humans make when using computing technologies influence ethical and social outcomes.
ISTE 1.1.d, 1.3.b, and 1.5.b: technology fundamentals, evaluation of information and data, and using relevant data sets for problem-solving.
AI4K12 Big Idea 3: Learning and Big Idea 5: Societal Impact.
CCSS CCRA.SL.1, CCRA.SL.2, CCRA.SL.4, CCRA.L.4, and CCRA.L.6.

Partially covered

CSTA E4-ALG-02: Train an AI model to make a classification or prediction. Gameplay simulates selected ideas about training through examples, but students do not train a live machine-learning model or upload a labeled dataset.
CSTA MS-ALG-06: Make informed predictions about hidden AI processes. Students infer behavior from inputs and outputs, but they do not investigate the underlying technical system.
CSTA E5-DAA-11: Analyze benefits and risks of computing technology that uses collected data. The lesson addresses useful and inaccurate results and includes limited fairness prompts, but it does not examine privacy or broader data-collection risks in depth.

CSTA MS-ALG-10: Describe beneficial and harmful impacts, ethical issues, and biases of algorithms encountered in daily life. The lesson includes limited fairness and human-responsibility prompts, but it does not include sustained analysis of real-world algorithms or cases.
ISTE 1.4.a and 1.4.c: design process, prototyping, testing, and refinement. Students refine examples and outcomes, but do not complete a full student-led design cycle in the core lesson.
AI4K12 Big Idea 2: Representation and Reasoning. Categories and examples support decisions, but formal representations and reasoning methods are not explicitly taught.
CCSS CCRA.SL.3: evaluation of a speaker's reasoning can transfer to evaluating an AI output, but the standard is not directly targeted throughout the lesson.

Not directly addressed - plan accordingly

CSTA Programming standards: students do not write, inspect, or modify code in the core lesson. The optional Code Yard experience requires a separate task-specific alignment.
CSTA Systems and Security standards: networks, authentication, encryption, cyberattacks, and system protection are outside the lesson's focus.
AI4K12 Big Idea 1: Perception. The lesson does not explicitly teach how AI uses sensors or perceptual processes to interpret images, sounds, or signals.
AI4K12 Big Idea 4: Natural Interaction. The lesson does not examine language understanding, conversational AI, or speech-based interaction.
Common Core Reading and Writing strands: the core materials include short written responses but do not require sustained close reading, research, or extended composition.
Documentation: the lesson materials do not cite these standards; all mappings in this crosswalk are independent and should be verified before formal adoption.

Appendix A - CSTA Draft 3.0 standards used

Official standard statements reproduced from Revised PK-12 Computer Science Standards, Draft 3.0 (CSTA, 2025). Boundary statements are summarized in the alignment tables rather than reproduced in full.

Code	Official standard wording
E3-ALG-02	Investigate how AI models can evolve when new data is added to a training set.
E4-ALG-02	Train an AI model to make a classification or prediction.
E5-ALG-02	Analyze relationships between the properties of training data and an AI model's output.
MS-ALG-06	Make informed predictions about the hidden processes and functions of AI and other complex systems.
MS-ALG-07	Investigate ways to improve the accuracy of an AI model and reduce bias by refining the quality of examples and non-examples in its training data.
MS-ALG-10	Describe evidence of beneficial and harmful impacts, ethical issues, and biases of algorithms encountered in daily life.

E3-DAA-09	Evaluate numeric and non-numeric data for accuracy and completeness.
E5-DAA-11	Analyze the benefits and risks of computing technology that uses collected data.
MS-DAA-29	Analyze how decisions made during data collection, data processing, data analysis, and data presentation can lead to biased data, misleading conclusions, and compromised AI models.
MS-CAS-43	Analyze how the decisions humans make when using computing technologies influence ethical and social outcomes.

Appendix B - ISTE, AI4K12, and Common Core references

Framework · Code	Reference used in this analysis
ISTE · 1.1.d	Technology Fundamentals.
ISTE · 1.3.b	Evaluate Information.
ISTE · 1.4.a / 1.4.c	Design Process; Prototypes and Refinement.
ISTE · 1.5.b / 1.5.d	Data Sets; Algorithmic Thinking.
AI4K12 · Big Idea 2	Representation and Reasoning.
AI4K12 · Big Idea 3	Learning.
AI4K12 · Big Idea 5	Societal Impact.
CCSS · CCRA.SL.1	Prepare for and participate effectively in a range of conversations and collaborations.
CCSS · CCRA.SL.2	Integrate and evaluate information presented in diverse media and formats.
CCSS · CCRA.SL.3	Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric.
CCSS · CCRA.SL.4	Present information, findings, and supporting evidence clearly.
CCSS · CCRA.L.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases.

CCSS · CCRA.L.6	Acquire and use general academic and domain-specific words and phrases.

Source links

ISTE Standards for Students: https://iste.org/standards/students
Revised CSTA PK-12 Computer Science Standards Draft 3.0: https://csteachers.org/wp-content/uploads/2025/12/Revised-CSTA-PK-12-Standards-Draft-3.0.pdf
AI4K12 Grade Band Progression Charts: https://ai4k12.org/gradeband-progression-charts/
Common Core Speaking and Listening Anchor Standards: https://www.thecorestandards.org/ELA-Literacy/CCRA/SL/
Common Core Language Anchor Standards: https://www.thecorestandards.org/ELA-Literacy/CCRA/L/

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