Teach Computing Curriculum Map

Welcome to the **Teach Computing Curriculum** Map, this document provides an overview of the units and lessons designed for students aged 7-11 (Key Stage 2). Additional mapping documents are available for other ages at teachcomputing.org/curriculum.

Use this document to explore the curriculum, how it is structured and most importantly how it meets the objectives of the English national curriculum. You can also use this document to discover how the curriculum content connects to other frameworks such as **Education for a connected world** and various exam specifications (where relevant).

You are also able to explore progression within the curriculum materials as each objective is mapped to one or more of the 10 strands within our content taxonomy. For example if you want to understand how skills and concepts around **networks** are developed you can do so, by simply filtering your view to hide all non-network related objectives.

On the next sheet you'll find details of every unit, lesson and learning objective arranged in their suggested teaching order. Every column can be

To filter a column, click the filter control button in the column header and select the desired data from the drop down menu

Statement Number	National Curriculum Statement
2.1	design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
2.2	use sequence, selection, and repetition in programs; work with variables and various forms of input and output
2.3	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
2.4	understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
2.5	use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
2.6	select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
2.7	use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Teach Computing Taxonomy		
Abbreviation	**Strand**	**Description**
NW	Networks	Understand how networks can be used to retrieve and share information and come with associated risks
CM	Creating Media	Select and create a range of media including text, images, sounds and video.
DI	Data & Information	How is data stored, organised and used to represent real world artefacts and scenarios
DD	Design & Deveopment	The activities involved in planning, creating and evaluating computing artefacts
CS	Computing Systems	What is a computer, how do it's constituent parts function together as a whole
IT	Impact of Technology	How individuals, systems and society as a whole interact with computer systems
AL	Algorithms	Being able to comprehend, design, create and evaluate algorithms
PG	Programming	Creating software to allow computers to solve problems
ET	Effective Use of tools	Use software tools to support computing work
SS	Safety & Security	Understanding risks when using technology and how to protect individuals and systems

Year Group	Suggested Order	Unit Name	Lesson
3	1	Computing systems and networks – Connecting computers	1
3	1	Computing systems and networks – Connecting computers	2
3	1	Computing systems and networks – Connecting computers	3
3	1	Computing systems and networks – Connecting computers	4
3	1	Computing systems and networks – Connecting computers	5
3	1	Computing systems and networks – Connecting computers	6
3	2	Creating media – Animation	1
3	2	Creating media – Animation	2
3	2	Creating media – Animation	3
3	2	Creating media – Animation	4
3	2	Creating media – Animation	5
3	2	Creating media – Animation	6

3	3	Programming A – Sequence in music	1
3	3	Programming A – Sequence in music	2
3	3	Programming A – Sequence in music	3
3	3	Programming A – Sequence in music	4
3	3	Programming A – Sequence in music	5
3	3	Programming A – Sequence in music	6
3	4	Data and information – Branching databases	1
3	4	Data and information – Branching databases	2
3	4	Data and information – Branching databases	3
3	4	Data and information – Branching databases	4
3	4	Data and information – Branching databases	5
3	4	Data and information – Branching databases	6
3	5	Creating media – Desktop publishing	1

3	5	Creating media – Desktop publishing	2
3	5	Creating media – Desktop publishing	3
3	5	Creating media – Desktop publishing	4
3	5	Creating media – Desktop publishing	5
3	5	Creating media – Desktop publishing	6
3	6	Programming B – Events and actions	1
3	6	Programming B – Events and actions	2
3	6	Programming B – Events and actions	3
3	6	Programming B – Events and actions	4
3	6	Programming B – Events and actions	5
3	6	Programming B – Events and actions	6
4	1	Computing systems and networks – The Internet	1
4	1	Computing systems and networks – The Internet	2

4	1	Computing systems and networks – The Internet	3
4	1	Computing systems and networks – The Internet	4
4	1	Computing systems and networks – The Internet	5
4	1	Computing systems and networks – The Internet	6
4	2	Creating media – Audio editing	1
4	2	Creating media – Audio editing	2
4	2	Creating media – Audio editing	3
4	2	Creating media – Audio editing	4
4	2	Creating media – Audio editing	5
4	2	Creating media – Audio editing	6
4	3	Programming A – Repetition in shapes	1
4	3	Programming A – Repetition in shapes	2

4	3	Programming A – Repetition in shapes	3
4	3	Programming A – Repetition in shapes	4
4	3	Programming A – Repetition in shapes	5
4	3	Programming A – Repetition in shapes	6
4	4	Data and information – Data logging	1
4	4	Data and information – Data logging	2
4	4	Data and information – Data logging	3
4	4	Data and information – Data logging	4
4	4	Data and information – Data logging	5
4	4	Data and information – Data logging	6
4	5	Creating media – Photo editing	1
4	5	Creating media – Photo editing	2
4	5	Creating media – Photo editing	3

4	5	Creating media – Photo editing	4
4	5	Creating media – Photo editing	5
4	5	Creating media – Photo editing	6
4	6	Programming B – Repetition in games	1
4	6	Programming B – Repetition in games	2
4	6	Programming B – Repetition in games	3
4	6	Programming B – Repetition in games	4
4	6	Programming B – Repetition in games	5
4	6	Programming B – Repetition in games	6
5	1	Computing systems and networks – Sharing information	1
5	1	Computing systems and networks – Sharing information	2

5	1	Computing systems and networks – Sharing information	3
5	1	Computing systems and networks – Sharing information	4
5	1	Computing systems and networks – Sharing information	5
5	1	Computing systems and networks – Sharing information	6
5	2	Creating media – Video editing	1
5	2	Creating media – Video editing	2
5	2	Creating media – Video editing	3
5	2	Creating media – Video editing	4
5	2	Creating media – Video editing	5
5	2	Creating media – Video editing	6
5	3	Programming A – Selection in physical computing	1
5	3	Programming A – Selection in physical computing	2

5	3	Programming A – Selection in physical computing	3
5	3	Programming A – Selection in physical computing	4
5	3	Programming A – Selection in physical computing	5
5	3	Programming A – Selection in physical computing	6
5	4	Data and information – Flat-file databases	1
5	4	Data and information – Flat-file databases	2
5	4	Data and information – Flat-file databases	3
5	4	Data and information – Flat-file databases	4
5	4	Data and information – Flat-file databases	5
5	4	Data and information – Flat-file databases	6
5	5	Creating media – Vector drawing	1
5	5	Creating media – Vector drawing	2

5	5	Creating media – Vector drawing	3
5	5	Creating media – Vector drawing	4
5	5	Creating media – Vector drawing	5
5	5	Creating media – Vector drawing	6
5	6	Programming B – Selection in quizzes	1
5	6	Programming B – Selection in quizzes	2
5	6	Programming B – Selection in quizzes	3
5	6	Programming B – Selection in quizzes	4
5	6	Programming B – Selection in quizzes	5
5	6	Programming B – Selection in quizzes	6
6	1	Computing systems and networks – Communication	1
6	1	Computing systems and networks – Communication	2

6	1	Computing systems and networks – Communication	3
6	1	Computing systems and networks – Communication	4
6	1	Computing systems and networks – Communication	5
6	1	Computing systems and networks – Communication	6
6	2	Creating media – Web page creation	1
6	2	Creating media – Web page creation	2
6	2	Creating media – Web page creation	3
6	2	Creating media – Web page creation	4
6	2	Creating media – Web page creation	5
6	2	Creating media – Web page creation	6
6	3	Programming A – Variables in games	1
6	3	Programming A – Variables in games	2

6	3	Programming A – Variables in games	3
6	3	Programming A – Variables in games	4
6	3	Programming A – Variables in games	5
6	3	Programming A – Variables in games	6
6	4	Data and information – Spreadsheets	1
6	4	Data and information – Spreadsheets	2
6	4	Data and information – Spreadsheets	3
6	4	Data and information – Spreadsheets	4
6	4	Data and information – Spreadsheets	5
6	4	Data and information – Spreadsheets	6
6	5	Creating media – 3D Modelling	1
6	5	Creating media – 3D Modelling	2
6	5	Creating media – 3D Modelling	3
6	5	Creating media – 3D Modelling	4

6	5	Creating media – 3D Modelling	5
6	5	Creating media – 3D Modelling	6
6	6	Programming B – Sensing	1
6	6	Programming B – Sensing	2
6	6	Programming B – Sensing	3
6	6	Programming B – Sensing	4
6	6	Programming B – Sensing	5
6	6	Programming B – Sensing	6

Learning Objectives
To explain how digital devices function
To identify input and output devices
To recognise how digital devices can change the way we work
To explain how a computer network can be used to share information
To explore how digital devices can be connected
To recognise the physical components of a network
To explain that animation is a sequence of drawings or photographs
To relate animated movement with a sequence of images
To plan an animation
To identify the need to work consistently and carefully
To review and improve an animation
To evaluate the impact of adding other media to an animation

To explore a new programming environment
To identify that commands have an outcome
To explain that a program has a start
To recognise that a sequence of commands can have an order
To change the appearance of my project
To create a project from a task description
To create questions with yes/no answers
To identify the object attributes needed to collect relevant data
To create a branching database
To explain why it is helpful for a database to be well structured
To identify objects using a branching database
To compare the information shown in a pictogram with a branching database
To recognise how text and images convey information

To recognise that text and layout can be edited
To choose appropriate page settings
To add content to a desktop publishing publication
To consider how different layouts can suit different purposes
To consider the benefits of desktop publishing
To explain how a sprite moves in an existing project
To create a program to move a sprite in four directions
To adapt a program to a new context
To develop my program by adding features
To identify and fix bugs in a program
To design and create a maze-based challenge
To describe how networks physically connect to other networks
To recognise how networked devices make up the internet

To outline how websites can be shared via the World Wide Web (WWW)
To describe how content can be added and accessed on the World Wide Web (WWW)
To recognise how the content of the WWW is created by people
To evaluate the consequences of unreliable content
To identify that sound can be digitally recorded
To use a digital device to record sound
To explain that a digital recording is stored as a file
To explain that audio can be changed through editing
To show that different types of audio can be combined and played together
To evaluate editing choices made
To identify that accuracy in programming is important
To create a program in a text-based language

To explain what ‘repeat’ means
To modify a count-controlled loop to produce a given outcome
To decompose a task into small steps
To create a program that uses count-controlled loops to produce a given outcome
To explain that data gathered over time can be used to answer questions
To use a digital device to collect data automatically
To explain that a data logger collects ‘data points’ from sensors over time
To use data collected over a long duration to find information
To identify the data needed to answer questions
To use collected data to answer questions
To explain that digital images can be changed
To change the composition of an image
To describe how images can be changed for different uses

To make good choices when selecting different tools
To recognise that not all images are real
To evaluate how changes can improve an image
To develop the use of count-controlled loops in a different programming environment
To explain that in programming there are infinite loops and count controlled loops
To develop a design that includes two or more loops which run at the same time
To modify an infinite loop in a given program
To design a project that includes repetition
To create a project that includes repetition
To explain that computers can be connected together to form systems
To recognise the role of computer systems in our lives

To recognise how information is transferred over the internet
To explain how sharing information online lets people in different places work together
To contribute to a shared project online
To evaluate different ways of working together online
To explain what makes a video effective
To identify digital devices that can record video
To capture video using a range of techniques
To create a storyboard
To identify that video can be improved through reshooting and editing
To consider the impact of the choices made when making and sharing a video
To control a simple circuit connected to a computer
To write a program that includes count-controlled loops

To explain that a loop can stop when a condition is met
To explain that a loop can be used to repeatedly check whether a condition has been met
To design a physical project that includes selection
To create a program that controls a physical computing project
To use a form to record information
To compare paper and computer-based databases
To outline how grouping and then sorting data allows us to answer questions
To explain that tools can be used to select specific data
To explain that computer programs can be used to compare data visually
To apply my knowledge of a database to ask and answer real-world questions
To identify that drawing tools can be used to produce different outcomes
To create a vector drawing by combining shapes

To use tools to achieve a desired effect
To recognise that vector drawings consist of layers
To group objects to make them easier to work with
To evaluate my vector drawing
To explain how selection is used in computer programs
To relate that a conditional statement connects a condition to an outcome
To explain how selection directs the flow of a program
To design a program which uses selection
To create a program which uses selection
To evaluate my program
To identify how to use a search engine
To describe how search engines select results

To explain how search results are ranked
To recognise why the order of results is important, and to whom
To recognise how we communicate using technology
To evaluate different methods of online communication
To review an existing website and consider its structure
To plan the features of a web page
To consider the ownership and use of images (copyright)
To recognise the need to preview pages
To outline the need for a navigation path
To recognise the implications of linking to content owned by other people
To define a ‘variable’ as something that is changeable
To explain why a variable is used in a program

To choose how to improve a game by using variables
To design a project that builds on a given example
To use my design to create a project
To evaluate my project
To identify questions which can be answered using data
To explain that objects can be described using data
To explain that formulas can be used to produce calculated data
To apply formulas to data, including duplicating
To create a spreadsheet to plan an event
To choose suitable ways to present data
To use a computer to create and manipulate three-dimensional (3D) digital objects
To compare working digitally with 2D and 3D graphics
To construct a digital 3D model of a physical object
To identify that physical objects can be broken down into a collection of 3D shapes

To design a digital model by combining 3D objects
To develop and improve a digital 3D model
To create a program to run on a controllable device
To explain that selection can control the flow of a program
To update a variable with a user input
To use an conditional statement to compare a variable to a value
To design a project that uses inputs and outputs on a controllable device
To develop a program to use inputs and outputs on a controllable device

Success Criteria	National Curriculum Links				
	2.1	2.2	2.3	2.4	2.5
- I can explain that digital devices accept inputs - I can explain that digital devices produce outputs - I can follow a process					
- I can classify input and output devices - I can describe a simple process - I can design a digital device					
- I can explain how I use digital devices for different activities - I can recognise similarities between using digital devices and non-digital tools - I can suggest differences between using digital devices and non-digital tools					
- I can discuss why we need a network switch - I can explain how messages are passed through multiple connections - I can recognise different connections					
- I can demonstrate how information can be passed between devices - I can explain the role of a switch, server, and wireless access point in a network - I can recognise that a computer network is made up of a number of devices					
- I can identify how devices in a network are connected together - I can identify networked devices around me - I can identify the benefits of computer networks					
- I can create an effective flip book—style animation - I can draw a sequence of pictures - I can explain how an animation/flip book works					
- I can create an effective stop-frame animation - I can explain why little changes are needed for each frame - I can predict what an animation will look like					
- I can break down a story into settings, characters and events - I can create a storyboard - I can describe an animation that is achievable on screen					
- I can evaluate the quality of my animation - I can review a sequence of frames to check my work - I can use onion skinning to help me make small changes between frames					
- I can evaluate another learner's animation - I can explain ways to make my animation better - I can improve my animation based on feedback					
- I can add other media to my animation - I can evaluate my final film - I can explain why I added other media to my animation					

- I can explain that objects in Scratch have attributes (linked to) - I can identify the objects in a Scratch project (sprites, backdrops) - I can recognise that commands in Scratch are represented as blocks					
- I can choose a word which describes an on-screen action for my plan - I can create a program following a design - I can identify that each sprite is controlled by the commands I choose					
- I can create a sequence of connected commands - I can explain that the objects in my project will respond exactly to the code - I can start a program in different ways					
- I can combine sound commands - I can explain what a sequence is - I can order notes into a sequence					
- I can build a sequence of commands - I can decide the actions for each sprite in a program - I can make design choices for my artwork					
- I can identify and name the objects I will need for a project - I can implement my algorithm as code - I can relate a task description to a design					
- I can create two groups of objects separated by one attribute - I can investigate questions with yes/no answers - I can make up a yes/no question about a collection of objects					
- I can arrange objects into a tree structure - I can create a group of objects within an existing group - I can select an attribute to separate objects into groups					
- I can group objects using my own yes/no questions - I can prove my branching database works - I can select objects to arrange in a branching database					
- I can compare two branching database structures - I can create yes/no questions using given attributes - I can explain that questions need to be ordered carefully to split objects into similarly sized groups					
- I can create questions and apply them to a tree structure - I can select a theme and choose a variety of objects - I can use my branching database to answer questions					
- I can compare two ways of presenting information - I can explain what a branching database tells me - I can explain what a pictogram tells me					
- I can explain the difference between text and images - I can identify the advantages and disadvantages of using text and images - I can recognise that text and images can communicate messages clearly					

- I can change font style, size, and colours for a given purpose - I can edit text - I can explain that text can be changed to communicate more clearly					
- I can create a template for a particular purpose - I can define the term 'page orientation' - I can recognise placeholders and say why they are important					
- I can choose the best locations for my content - I can make changes to content after I've added it - I can paste text and images to create a magazine cover					
- I can choose a suitable layout for a given purpose - I can identify different layouts - I can match a layout to a purpose					
- I can compare work made on desktop publishing to work created by hand - I can identify the uses of desktop publishing in the real world - I can say why desktop publishing might be helpful					
- I can choose which keys to use for actions and explain my choices - I can explain the relationship between an event and an action - I can identify a way to improve a program					
- I can choose a character for my project - I can choose a suitable size for a character in a maze - I can program movement					
- I can choose blocks to set up my program - I can consider the real world when making design choices - I can use a programming extension					
- I can build more sequences of commands to make my design work - I can choose suitable keys to turn on additional features - I can identify additional features (from a given set of blocks)					
- I can match a piece of code to an outcome - I can modify a program using a design - I can test a program against a given design					
- I can evaluate my project - I can implement my design - I can make design choices and justify them					
- I can demonstrate how information is shared across the internet - I can describe the internet as a network of networks - I can discuss why a network needs protecting					
- I can describe networked devices and how they connect - I can explain that the internet is used to provide many services - I can recognise that the World Wide Web contains websites and web pages					

- I can describe how to access websites on the WWW - I can describe where websites are stored when uploaded to the WWW - I can explain the types of media that can be shared on the WWW					
- I can explain that internet services can be used to create content online - I can explain what media can be found on websites - I can recognise that I can add content to the WWW					
- I can explain that there are rules to protect content - I can explain that websites and their content are created by people - I can suggest who owns the content on websites					
- I can explain that not everything on the World Wide Web is true - I can explain why I need to think carefully before I share or reshare content - I can explain why some information I find online may not be honest, accurate, or legal					
- I can identify digital devices that can record sound and play it back - I can identify the inputs and outputs required to play audio or record sound - I can recognise the range of sounds that can be recorded					
- I can discuss what other people include when recording sound for a podcast - I can suggest how to improve my recording - I can use a device to record audio and play back sound					
- I can discuss why it is useful to be able to save digital recordings - I can plan and write the content for a podcast - I can save a digital recording as a file					
- I can discuss ways in which audio recordings can be altered - I can edit sections of of an audio recording - I can open a digital recording from a file					
- I can choose suitable sounds to include in a podcast - I can discuss sounds that other people combine - I can use editing tools to arrange sections of audio					
- I can discuss the features of a digital recording I like - I can explain that digital recordings need to be exported to share them - I can suggest improvements to a digital recording					
- I can create a code snippet for a given purpose - I can explain the effect of changing a value of a command - I can program a computer by typing commands					
- I can test my algorithm in a text-based language - I can use a template to create a design for my program - I can write an algorithm to produce a given outcome					

- I can identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves - I can identify patterns in a sequence - I can use a count-controlled loop to produce a given outcome					
- I can choose which values to change in a loop - I can identify the effect of changing the number of times a task is repeated - I can predict the outcome of a program containing a count-controlled loop					
- I can explain that a computer can repeatedly call a procedure - I can identify 'chunks' of actions in the real world - I can use a procedure in a program					
- I can design a program that includes count-controlled loops - I can develop my program by debugging it - I can make use of my design to write a program					
- I can choose a data set to answer a given question - I can identify data that can be gathered over time - I can suggest questions that can be answered using a given data set					
- I can explain that sensors are input devices - I can identify that data from sensors can be recorded - I can use data from a sensor to answer a given question					
- I can identify a suitable place to collect data - I can identify the intervals used to collect data - I can talk about the data that I have captured					
- I can import a data set - I can use a computer program to sort data - I can use a computer to view data in different ways					
- I can plan how to collect data using a data logger - I can propose a question that can be answered using logged data - I can use a data logger to collect data					
- I can draw conclusions from the data that I have collected - I can explain the benefits of using a data logger - I can interpret data that has been collected using a data logger					
- I can explain the effect that editing can have on an image - I can explore how images can be changed in real life - I can identify changes that we can make to an image					
- I can change the composition of an image by selecting parts of it - I can consider why someone might want to change the composition of an image - I can explain what has changed in an edited image					
- I can choose effects to make my image fit a scenario - I can explain why my choices fit a scenario - I can talk about changes made to images					

- I can choose appropriate tools to retouch an image - I can give examples of positive and negative effects that retouching can have on an image - I can identify how an image has been retouched					
- I can combine parts of images to create new images - I can sort images into 'fake' or 'real' and explain my choices - I can talk about fake images around me					
- I can compare the original image with my completed publication - I can consider the effect of adding other elements to my work - I can evaluate the impact of my publication on others through feedback					
- I can list an everyday task as a set of instructions including repetition - I can modify a snippet of code to create a given outcome - I can predict the outcome of a snippet of code					
- I can choose when to use a count-controlled and an infinite loop - I can modify loops to produce a given outcome - I can recognise that some programming languages enable more than one process to be run at once					
- I can choose which action will be repeated for each object - I can evaluate the effectiveness of the repeated sequences used in my program - I can explain what the outcome of the repeated action should be					
- I can explain the effect of my changes - I can identify which parts of a loop can be changed - I can re-use existing code snippets on new sprites					
- I can develop my own design explaining what my project will do - I can evaluate the use of repetition in a project - I can select key parts of a given project to use in my own design					
- I can build a program that follows my design - I can evaluate the steps I followed when building my project - I can refine the algorithm in my design					
- I can describe that a computer system features inputs, processes, and outputs - I can explain that computer systems communicate with other devices - I can explain that systems are built using a number of parts					
- I can explain the benefits of a given computer system - I can identify tasks that are managed by computer systems - I can identify the human elements of a computer system					

- I can explain that data is transferred over networks in packets - I can explain that networked digital devices have unique addresses - I can recognise that data is transferred using agreed methods					
- I can explain that the internet allows different media to be shared - I can recognise that connected digital devices can allow us to access shared files stored online - I can send information over the internet in different ways					
- I can compare working online with working offline - I can make thoughtful suggestions on my group's work - I can suggest strategies to ensure successful group work					
- I can explain how the internet enables effective collaboration - I can identify different ways of working together online - I can recognise that working together on the internet can be public or private					
- I can compare features in different videos - I can explain that video is a visual media format - I can identify features of videos					
- I can experiment with different camera angles - I can identify and find features on a digital video recording device - I can make use of a microphone					
- I can capture video using a range of filming techniques - I can review how effective my video is - I can suggest filming techniques for a given purpose					
- I can create and save video content - I can decide which filming techniques I will use - I can outline the scenes of my video					
- I can explain how to improve a video by reshooting and editing - I can select the correct tools to make edits to my video - I can store, retrieve, and export my recording to a computer					
- I can evaluate my video and share my opinions - I can make edits to my video and improve the final outcome - I can recognise that my choices when making a video will impact on the quality of the final outcome					
- I can create a simple circuit and connect it to a microcontroller - I can explain what an infinite loop does - I can program a microcontroller to make an LED switch on					
- I can connect more than one output component to a microcontroller - I can design sequences that use count-controlled loops - I can use a count-controlled loop to control outputs					

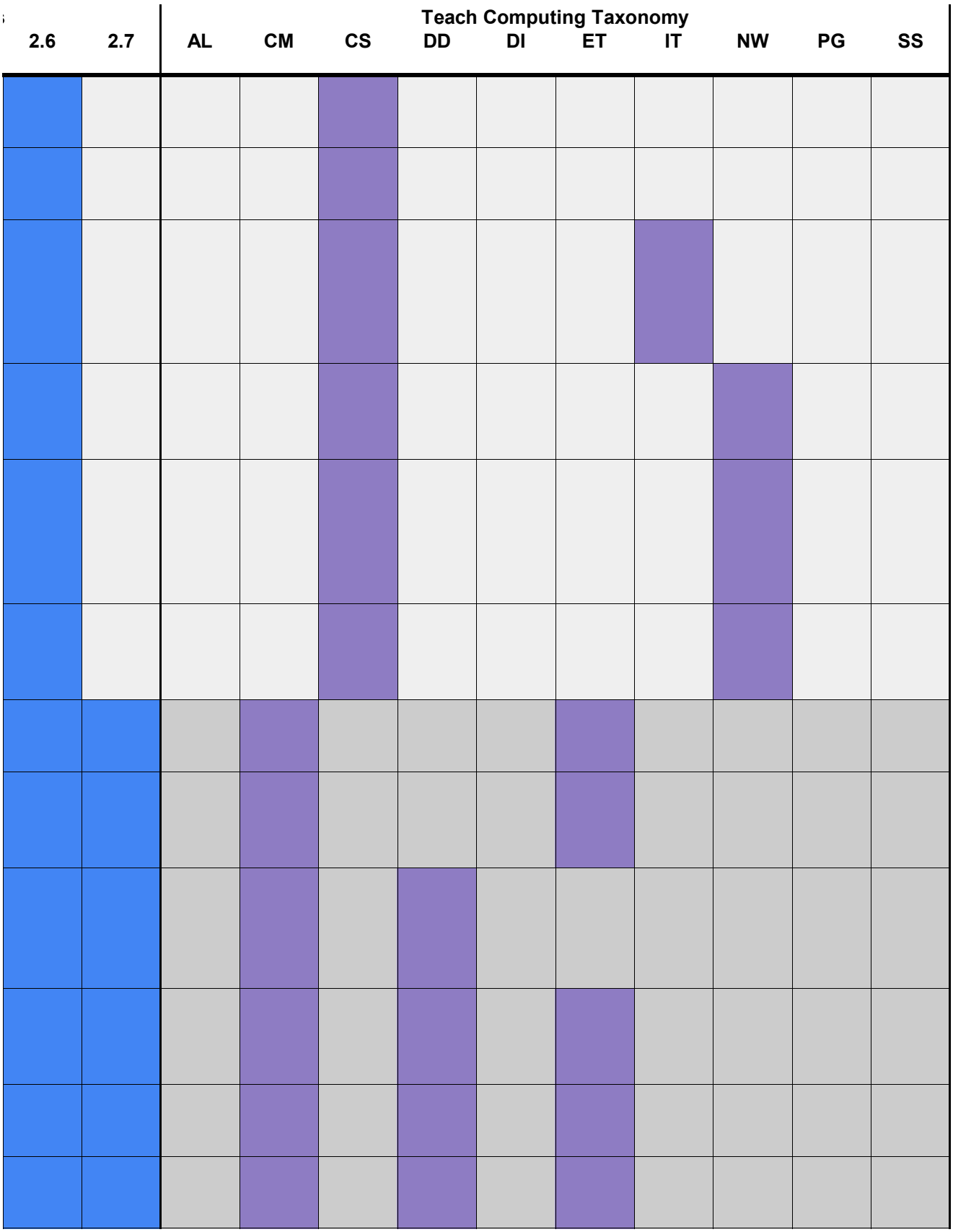
- I can design a conditional loop - I can explain that a condition is either true or - I can program a microcontroller to respond to an input					
- I can explain that a condition being met can start an action - I can identify a condition and an action in my project - I can use selection (an 'if…then…' statement) to direct the flow of a program					
- I can create a detailed drawing of my project - I can describe what my project will do - I can identify a real-world example of a condition starting an action					
- I can test and debug my project - I can use selection to produce an intended outcome - I can write an algorithm that describes what my model will do					
- I can create multiple questions about the same field - I can explain how information can be recorded - I can order, sort, and group my data cards					
- I can choose which field to sort data by to answer a given question - I can explain what a 'field' and a 'record' is in a database - I can navigate a flat-file database to compare different views of information					
- I can combine grouping and sorting to answer more specific questions - I can explain how information can be grouped - I can group information to answer questions					
- I can choose multiple criteria to answer a given question - I can choose which field and value are required to answer a given question - I can outline how 'AND' and 'OR' can be used to refine data selection					
- I can explain the benefits of using a computer to create graphs - I can refine a chart by selecting a particular filter - I can select an appropriate chart to visually compare data					
- I can ask questions that will need more than one field to answer - I can present my findings to a group - I can refine a search in a real-world context					
- I can discuss how a vector drawing is different from paper-based drawings - I can identify the main drawing tools - I can recognise that vector drawings are made using shapes					
- I can explain that each element added to a vector drawing is an object - I can identify the shapes used to make a vector drawing - I can move, resize, and rotate objects I have duplicated					

- I can explain how alignment grids and resize handles can be used to improve consistency - I can modify objects to create different effects - I can use the zoom tool to help me add detail to my drawings					
- I can change the order of layers in a vector drawing - I can identify that each added object creates a new layer in the drawing - I can identify which objects are in the front layer or in the back layer of a drawing					
- I can copy part of a drawing by duplicating several objects - I can group to create a single object - I can reuse a group of objects to further develop my vector drawing					
- I can apply what I have learned about vector drawings - I can suggest improvements to a vector drawing - I create alternatives to vector drawings					
- I can identify conditions in a program - I can modify a condition in a program - I can recall how conditions are used in selection					
- I can create a program with different outcomes using selection - I can identify the condition and outcomes in an 'if... then… else...' statement - I can use selection in an infinite loop to check a condition					
- I can design the flow of a program which contains 'if… then… else…' - I can explain that program flow can branch according to a condition - I can show that a condition can direct program flow in one of two ways					
- I can identify the outcome of user input in an algorithm - I can outline a given task - I can use a design format to outline my project					
- I can implement my algorithm to create the first section of my program - I can share my program with others - I can test my program					
- I can extend my program further - I can identify the setup code I need in my program - I can identify ways the program could be improved					
- I can compare results from different search engines - I can complete a web search to find specific information - I can refine my search					
- I can explain why we need tools to find things online - I can recognise the role of web crawlers in creating an index - I can relate a search term to the search engine's index					

- I can explain that a search engine follows rules to rank relevant pages - I can explain that search results are ordered - I can suggest some of the criteria that a search engine checks to decide on the order of results					
- I can describe some of the ways that search results can be influenced - I can explain how search engines make money - I can recognise some of the limitations of search engines					
- I can choose methods of communication to suit particular purposes - I can explain the different ways in which people communicate - I can identify that there are a variety of ways of communicating over the internet					
- I can compare different methods of communicating on the internet - I can decide when I should and should not share - I can explain that communication on the internet may not be private					
- I can discuss the different types of media used on websites - I can explore a website - I know that websites are written in HTML					
- I can draw a web page layout that suits my purpose - I can recognise the common features of a web page - I can suggest media to include on my page					
- I can describe what is meant by the term ‘fair use’ - I can find copyright-free images - I can say why I should use copyright-free images					
- I can add content to my own web page - I can evaluate what my web page looks like on different devices and suggest/make edits - I can preview what my web page looks like					
- I can describe why navigation paths are useful - I can explain what a navigation path is - I can make multiple web pages and link them using hyperlinks					
- I can create hyperlinks to link to other people's work - I can evaluate the user experience of a website - I can explain the implication of linking to content owned by others					
- I can explain that the way that a variable changes can be defined - I can identify examples of information that is variable - I can identify that variables can hold numbers or letters					
- I can explain that a variable has a name and a value - I can identify a program variable as a placeholder in memory for a single value - I can recognise that the value of a variable can be changed					

- I can decide where in a program to change a variable - I can make use of an event in a program to set a variable - I can recognise that the value of a variable can be used by a program					
- I can choose the artwork for my project - I can create algorithms for my project - I can explain my design choices					
- I can choose a name that identifies the role of a variable - I can create the artwork for my project - I can test the code that I have written					
- I can extend my game further using more variables - I can identify ways that my game could be improved - I can share my game with others					
- I can answer questions from an existing data set - I can ask simple relevant questions which can be answered using data - I can explain the relevance of data headings					
- I can apply an appropriate number format to a cell - I can build a data set in a spreadsheet application - I can explain what an item of data is					
- I can construct a formula in a spreadsheet - I can explain the relevance of a cell's data type - I can identify that changing inputs changes outputs					
- I can apply a formula to multiple cells by duplicating it - I can create a formula which includes a range of cells - I can recognise that data can be calculated using different operations					
- I can apply a formula to calculate the data I need to answer questions - I can explain why data should be organised - I can use a spreadsheet to answer questions					
- I can produce a graph - I can suggest when to use a table or graph - I can use a graph to show the answer to questions					
- I can discuss the similarities and differences between 2D and 3D shapes - I can explain why we might represent 3D objects on a computer - I can select, move, and delete a digital 3D shape					
- I can change the colour of a 3D object - I can identify how graphical objects can be modified - I can resize a 3D object					
- I can position 3D objects in relation to each other - I can rotate a 3D object - I can select and duplicate multiple 3D objects					
- I can create digital 3D objects of an appropriate size - I can group a digital 3D shape and a placeholder to create a hole in an object - I can identify the 3D shapes needed to create a model of a real-world object					

- I can choose which 3D objects I need to construct my model - I can modify multiple 3D objects - I can plan my 3D model					
- I can decide how my model can be improved - I can evaluate my model against a given criterion - I can modify my model to improve it					
- I can apply my knowledge of programming to a new environment - I can test my program on an emulator - I can transfer my program to a controllable device					
- I can determine the flow of a program using selection - I can identify examples of conditions in the real world - I can use a variable in an if, then, else statement to select the flow of a program					
- I can experiment with different physical inputs - I can explain that if you read a variable, the value remains - I can use a condition to change a variable					
- I can explain the importance of the order of conditions in else, if statements - I can modify a program to achieve a different outcome - I can use an operand (e.g. <>=) in an if, then statement					
- I can decide what variables to include in a project - I can design the algorithm for my project - I can design the program flow for my project					
- I can create a program based on my design - I can test my program against my design - I can use a range of approaches to find and fix bugs					


2.6
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Teach Computing Taxonomy
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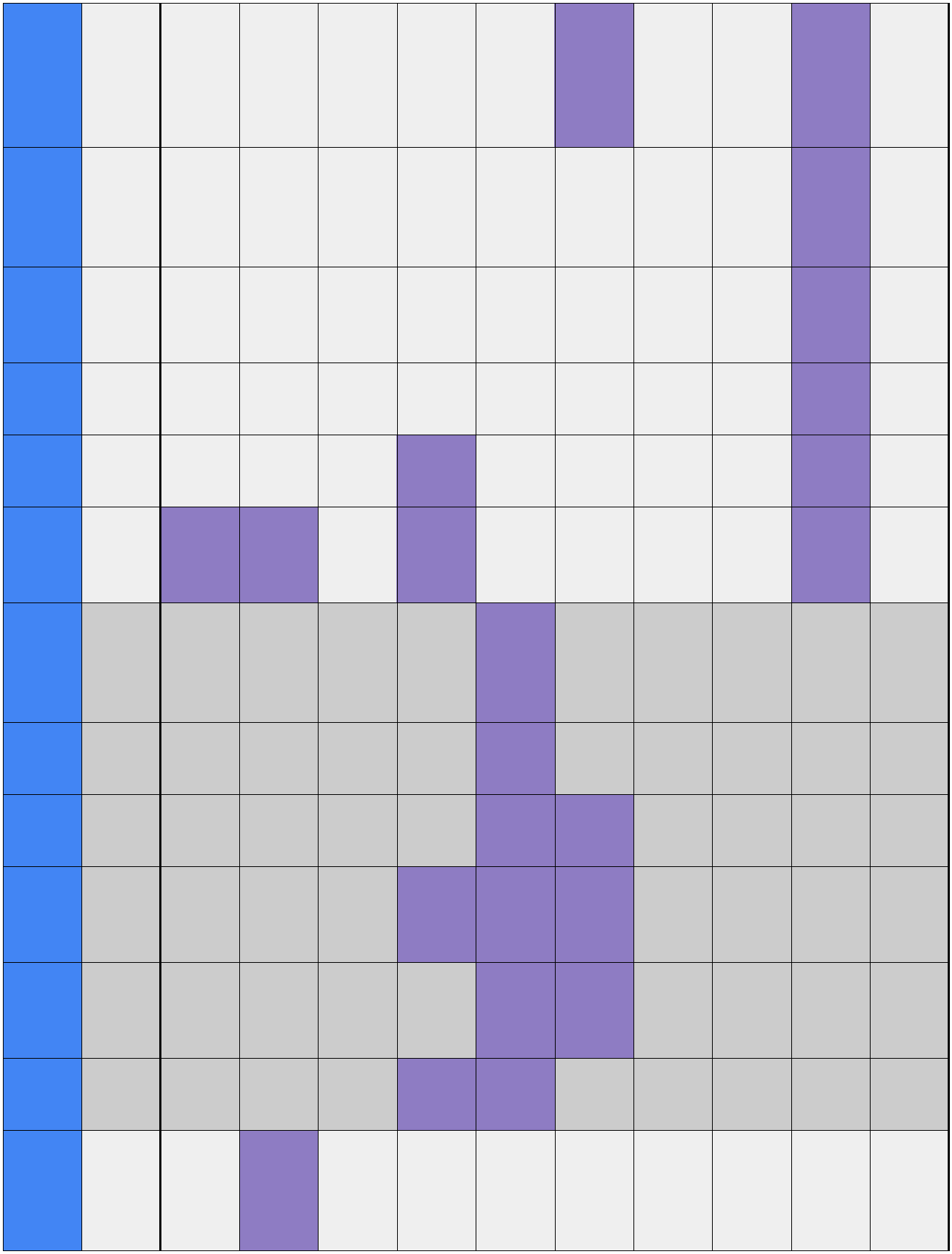

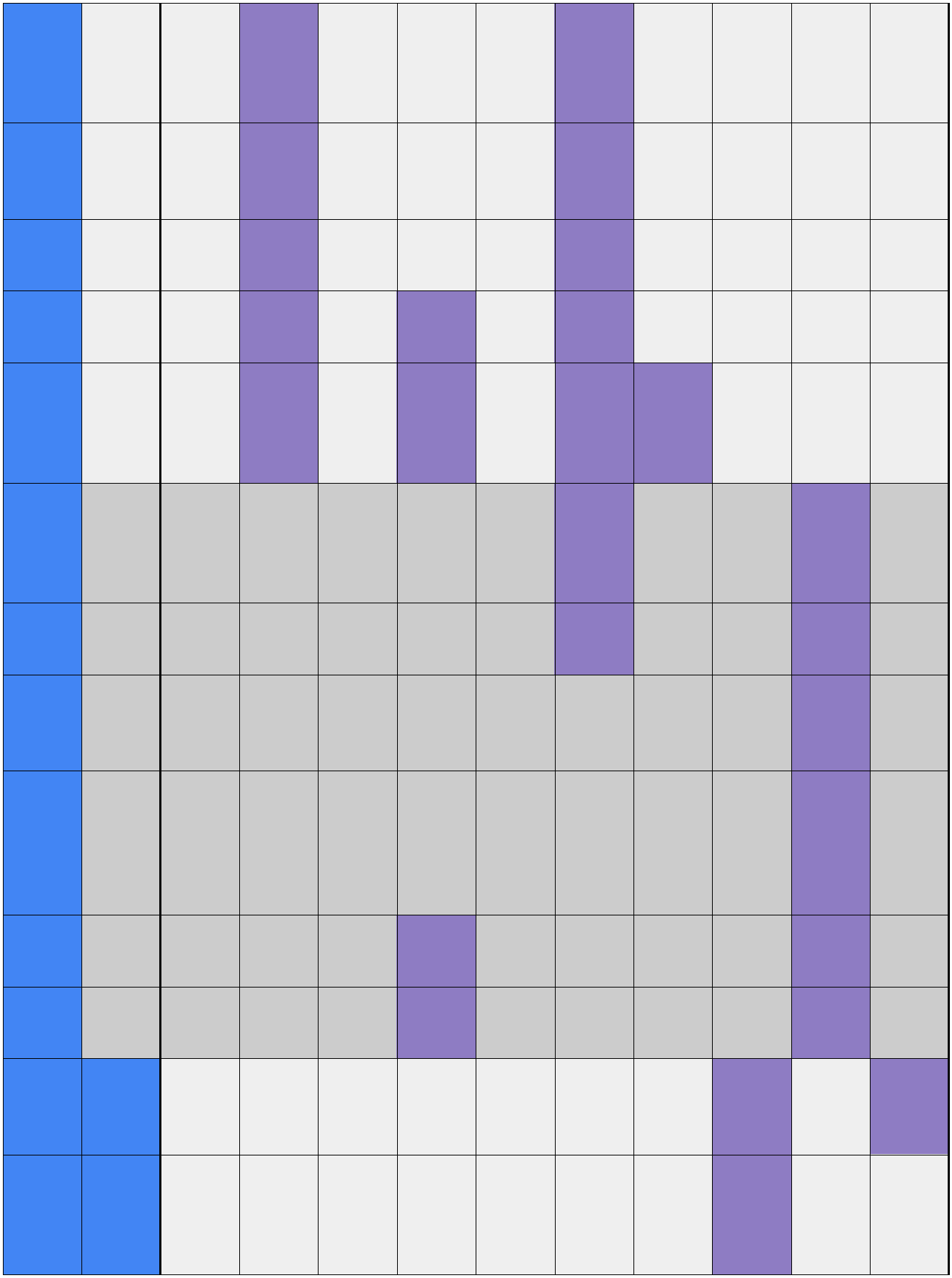

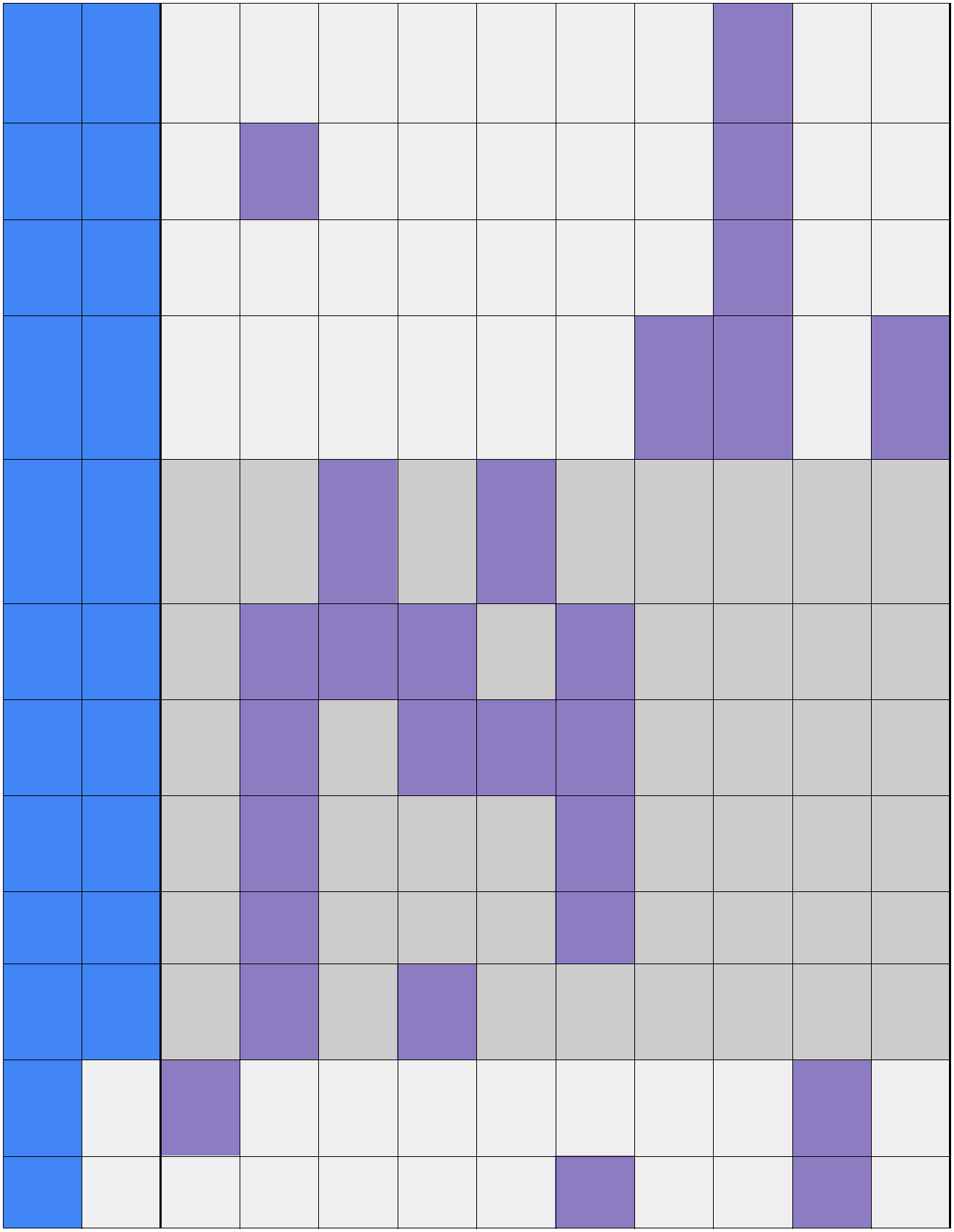

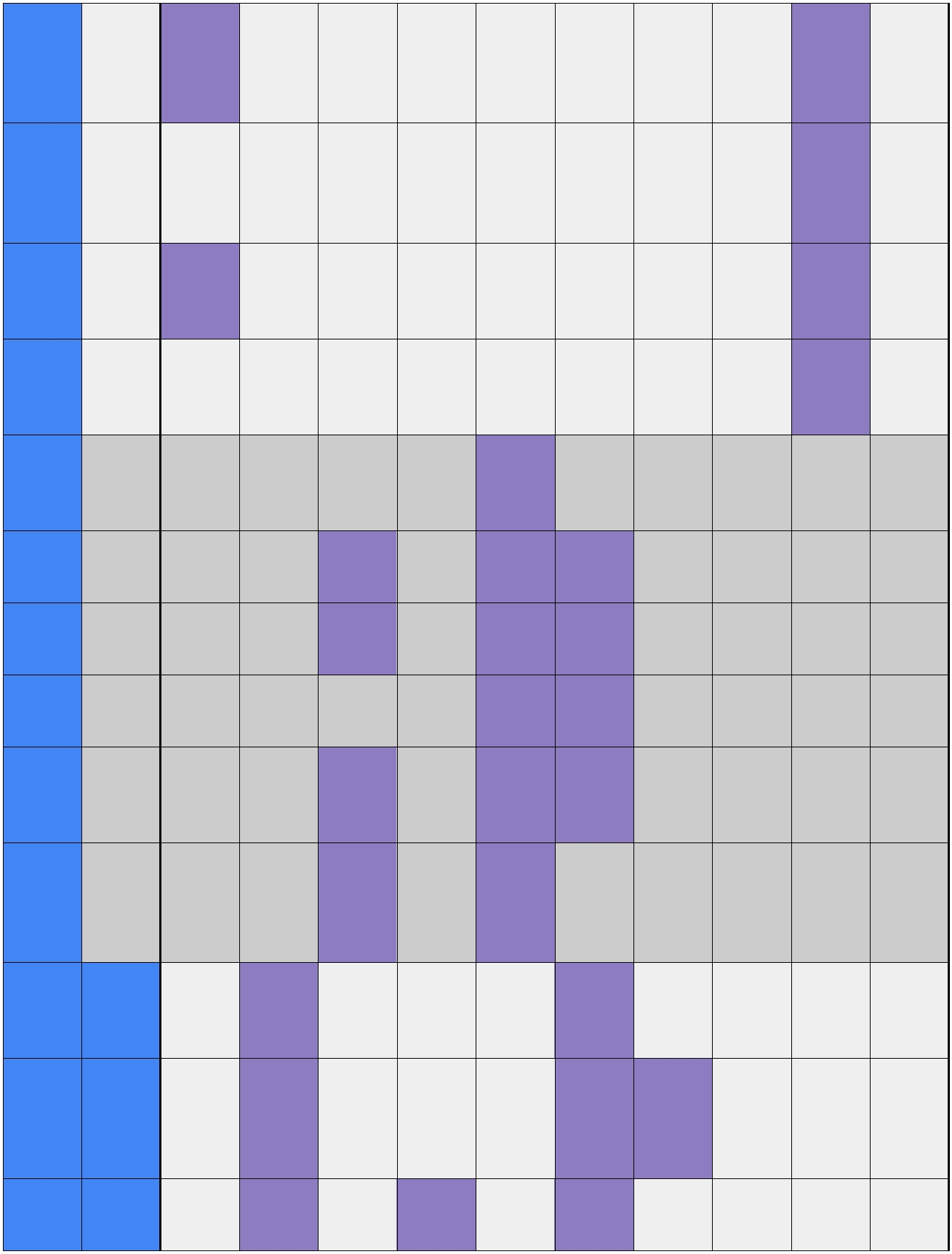

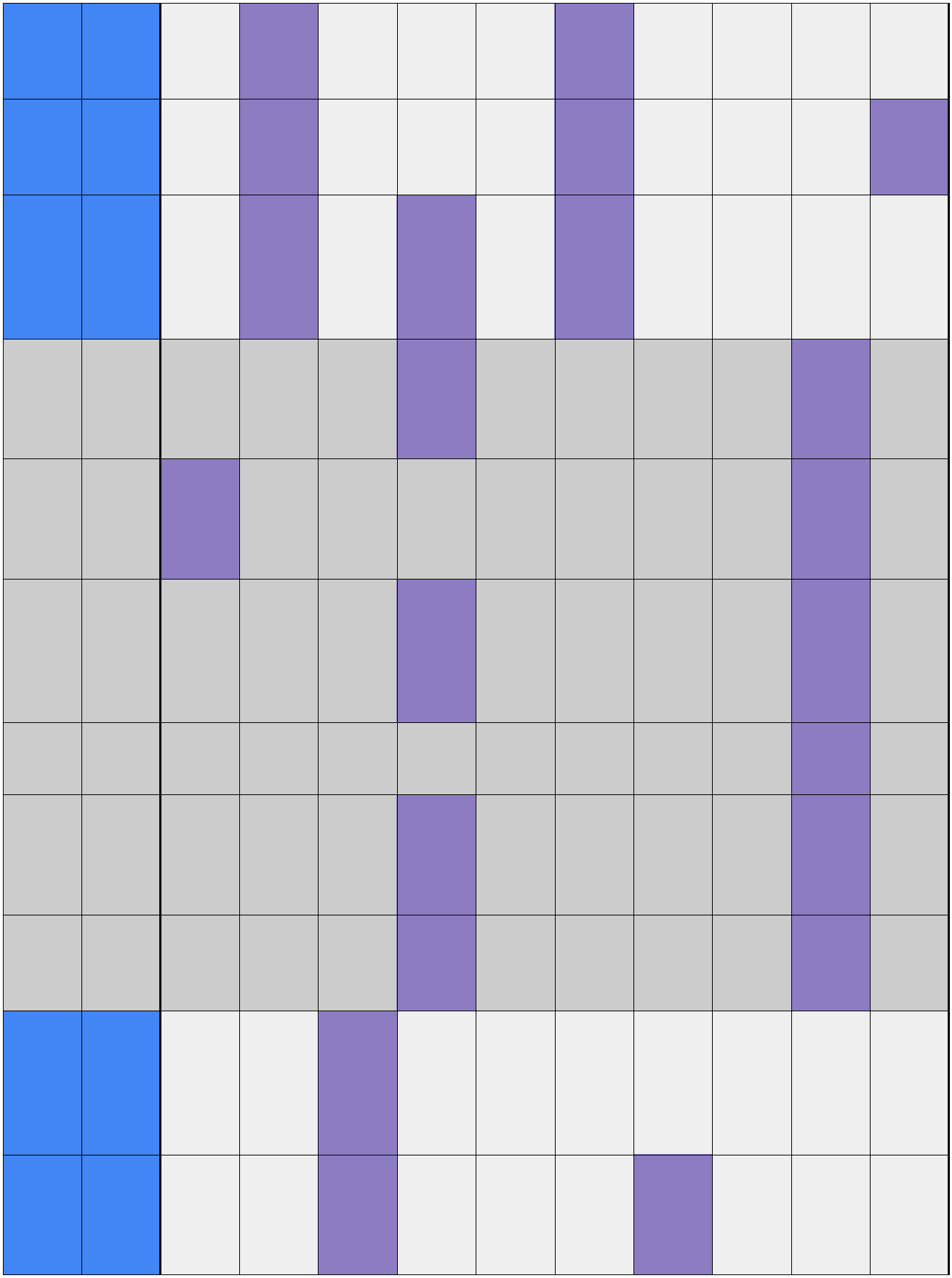

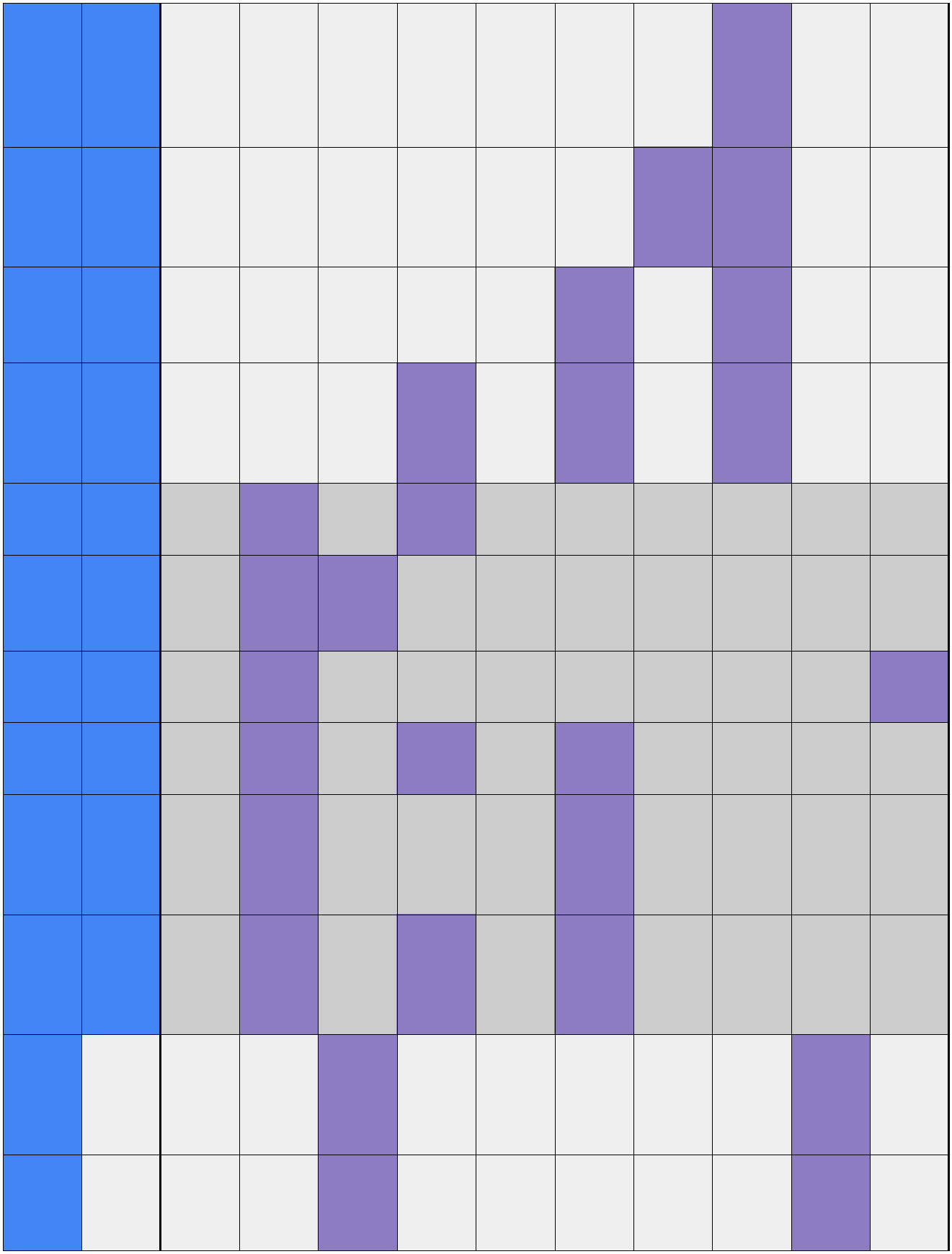

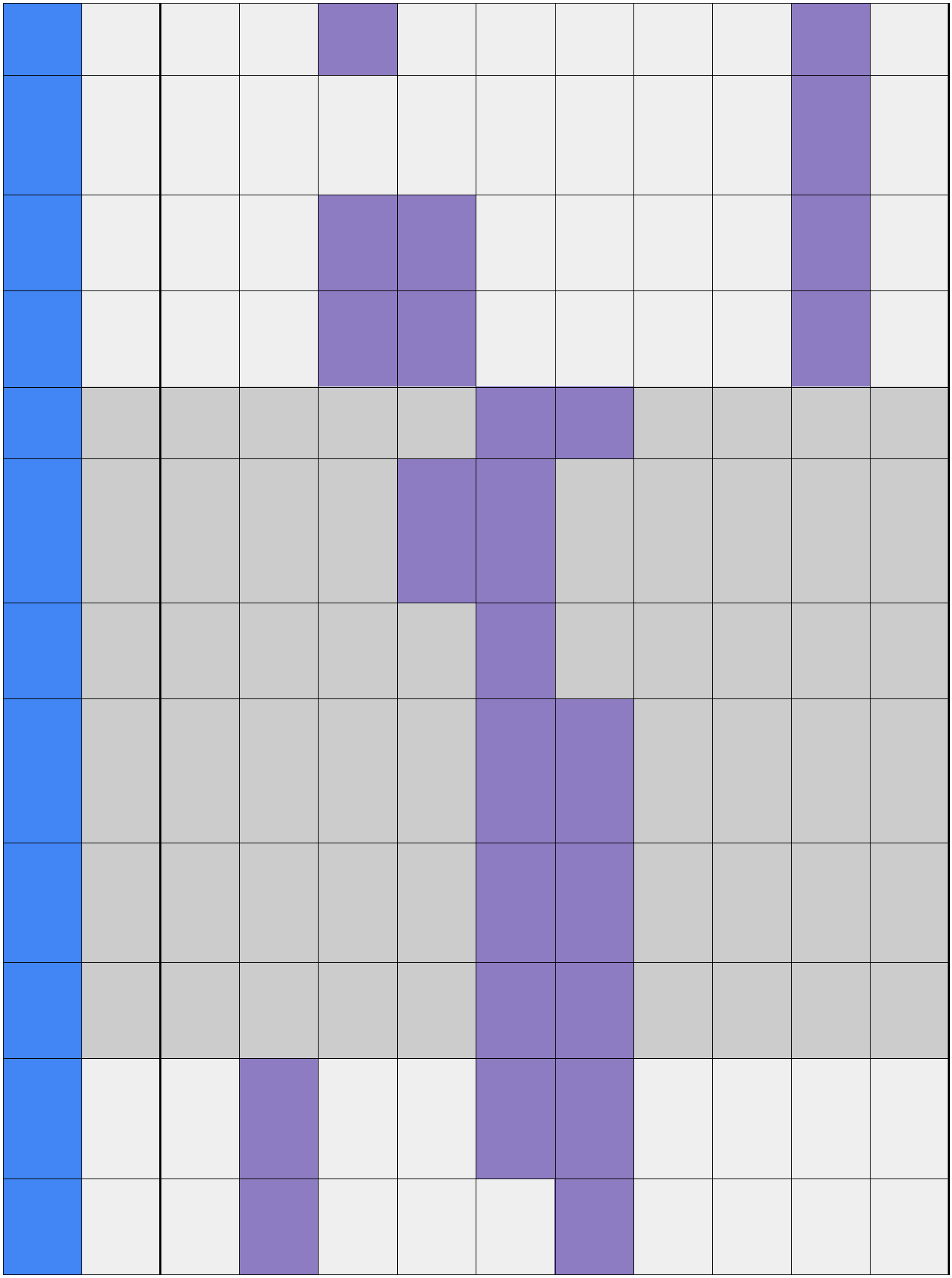

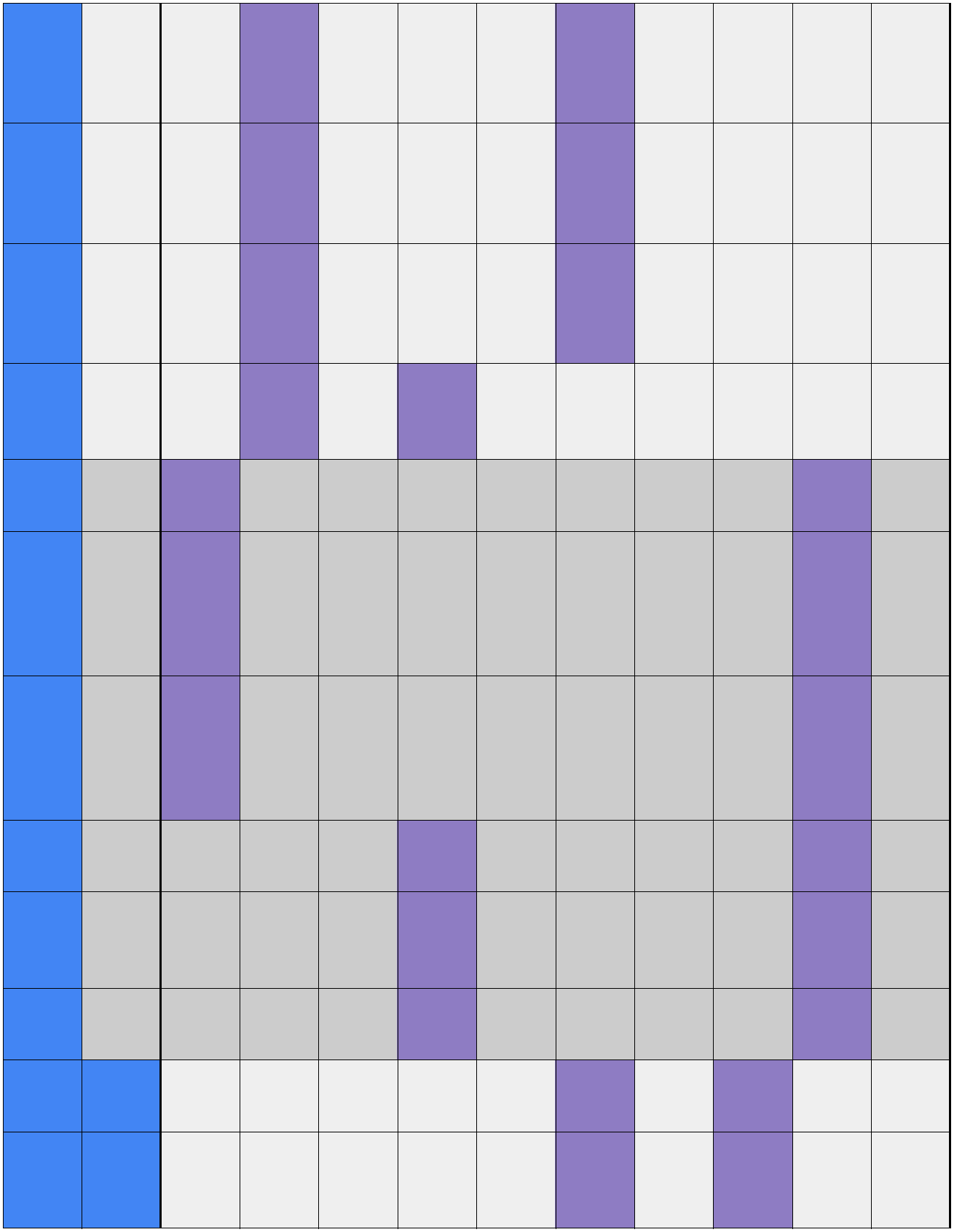

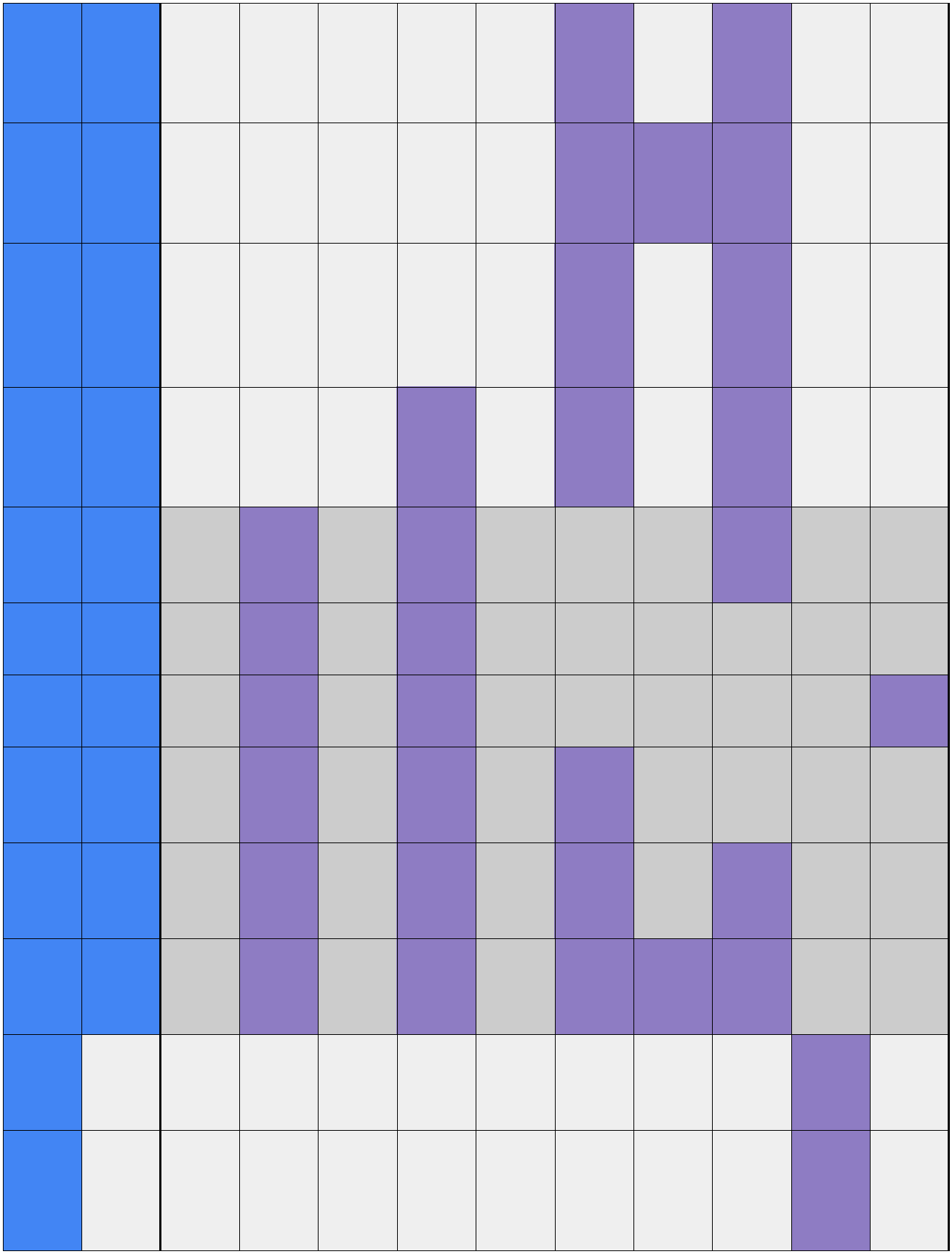

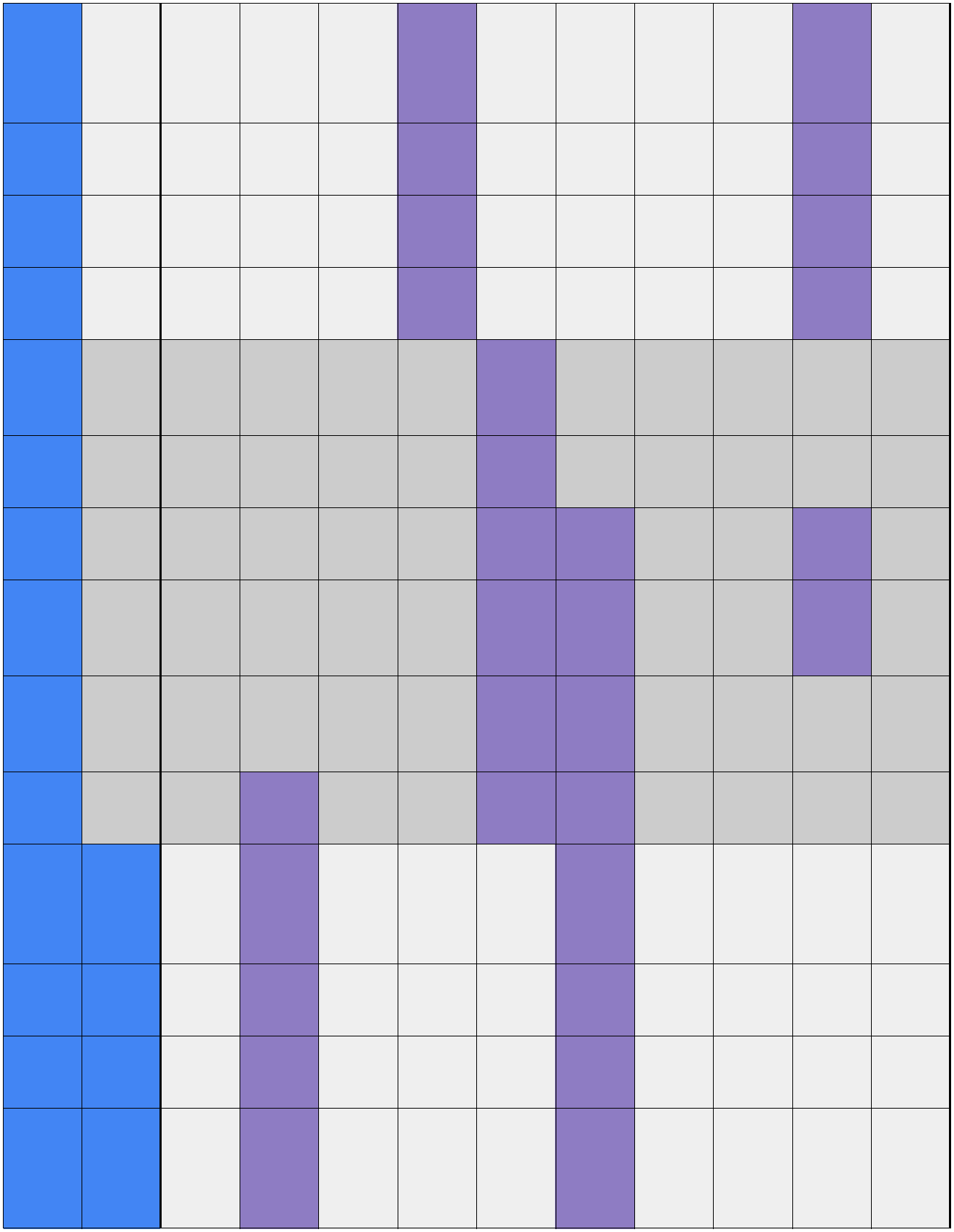

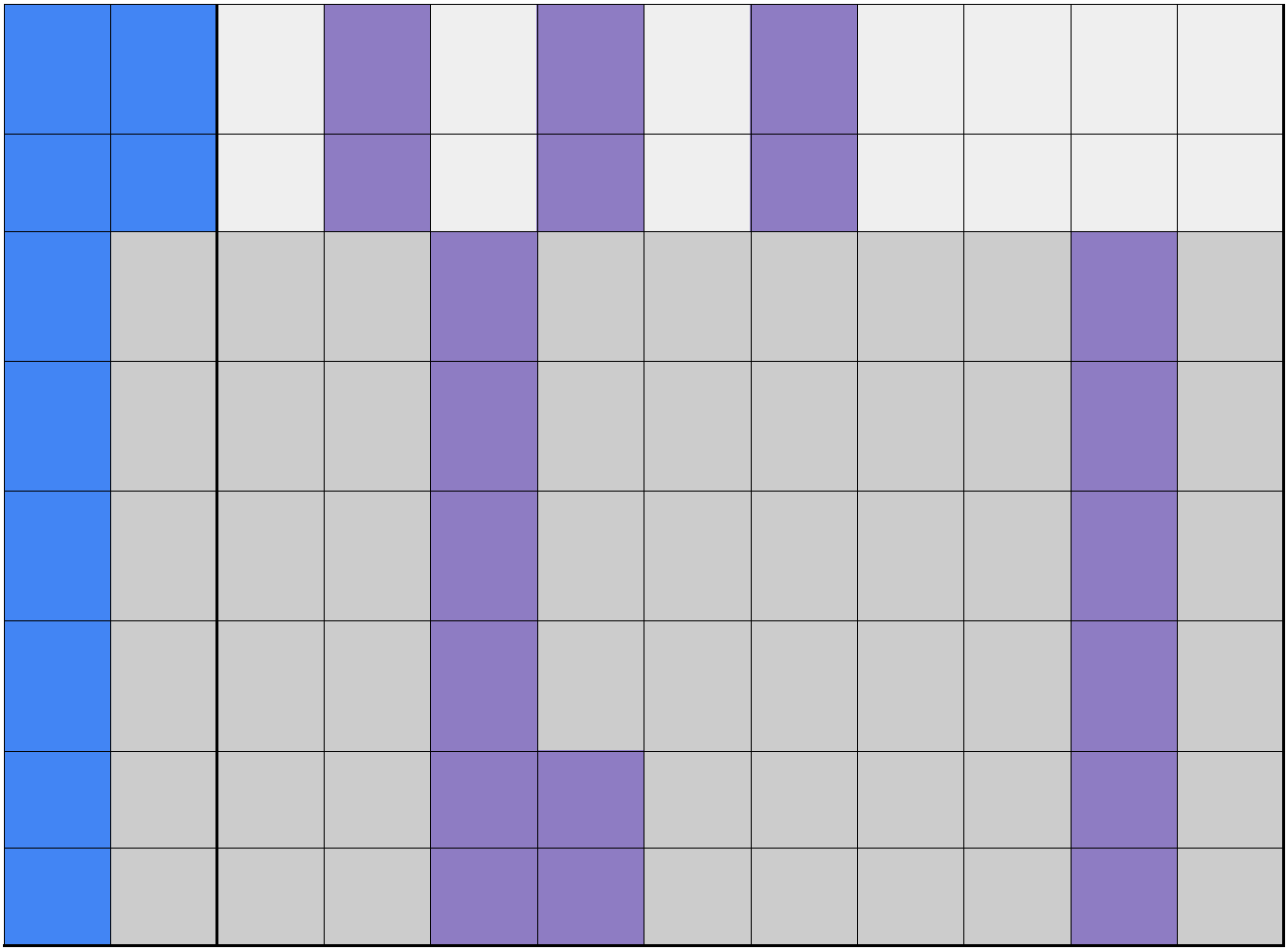

Cross Curricular Links	Education for a Connected World
	- Copyright and ownership - Managing online information
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	- Copyright and ownership - Self-image and identity
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	- Managing online information - Online relationships - Online reputation - Self-image and identity
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	- Privacy and security
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	- Privacy and security
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	- Copyright and ownership - Online relationships
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