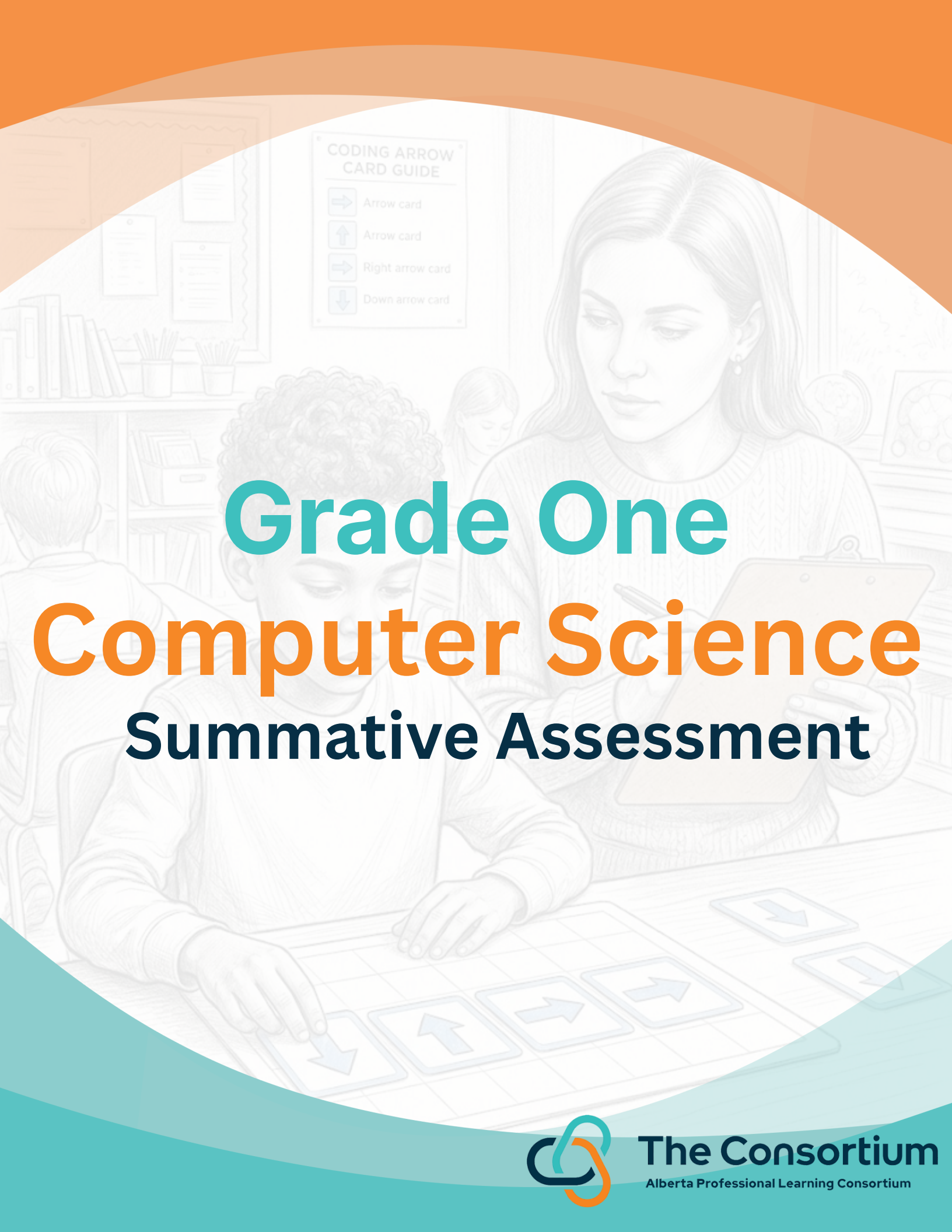

Grade One Computer Science

Summative Assessment

The Consortium
Alberta Professional Learning Consortium

Grade 1 CS: Observation Checklist

Student Name:

Date:

Skills	Met?	Teacher Notes / Evidence
Instructional Forms		
Follows instructions given in different forms (verbal, audio, visual, or written).	☐	
Successfully follows a 2- or 3-step sequence.	☐	
Logical Analysis		
Determines if a different order of steps still produces the desired outcome.	☐	
Identifies that many instructions need a specific order to work (e.g., recipes, directions).	☐	
Problem Solving		
Sequences 2 or 3 steps to achieve a specific goal.	☐	
Exchanges ideas with peers to create a 3-step instruction for a task.	☐	
Safety & Respect		
Follows safety protocols during a science investigation.	☐	
Demonstrates respect for others by following established classroom instructions.	☐	

Teacher Guide: Grade 1 Science Computer Science Summative Assessment

This guide is designed to assist teachers in administering the "Instructions and Outcomes" assessment. It covers core computational thinking concepts including sequencing, instruction types, and safety protocols.

Part 1: How We Get Instructions

Goal: To evaluate the student's ability to recognize different instruction types.

Teacher Instruction

Read the questions aloud to the class or small groups to ensure language is not a barrier. You may wish to point to actual items in the classroom (e.g., a "Quiet" sign or a clock bell) to provide real-world context.

Image / Description	Correct Type
A teacher speaking to the class	**Verbal**
A picture of a "Stop" sign	**Visual**
Words written on a whiteboard	**Written**
A bell ringing for recess	**Audio**

Part 2: Putting Steps in Order

Goal: Demonstrate an understanding of logical sequencing.

Teacher Instruction

Review the steps with the students. Ask them to number the steps in the correct logical order.

- **[3]** Put the two pieces of bread together.
- **[1]** Get two slices of bread.
- **[2]** Spread the peanut butter on the bread.

Part 3: Does Order Matter?

Goal: Identify dependencies in tasks.

Teacher Instruction

Lead a class discussion on whether the order of steps (algorithms) is critical to the outcome.

- **Shoes and Hat:** NO (The outcome is the same).
- **Socks and Shoes:** YES (The order matters).

Part 4: Safety and Respect

Goal: Assess understanding of classroom protocols and respect for instructions.

Teacher Instruction

Discuss the concept of "rules" in computer science—programs are just rules we give a computer to keep it working safely.

- 1. Correct Choice: B) Wait and follow every step carefully.
- 2. Correct Choice: A) To keep everyone safe and show respect.

Part 5: Solve a Problem

Goal: Summative assessment of ability to create a logical 3-step plan.

Teacher Instruction

This section is designed for partners. Observe students to ensure they are communicating clearly and that their 3-step plan is logical.

- **Success Criteria:** The plan must be logical and sequential.
- **Examples:**
    - Washing Hands: 1. Wet hands, 2. Add soap, 3. Rinse and dry.
    - Cleaning a Desk: 1. Clear off books, 2. Wipe with a cloth, 3. Put books back neatly.

Scoring Rubric & Notes

Skill Observed	Mastery (3)	Progressing (2)	Emerging (1)
Identifies Instructions	Correctly matches all types.	Matches 2-3 types correctly.	Matches 0-1 types.
Logical Sequencing	Orders all steps correctly.	Orders 1-2 steps correctly.	Unable to sequence steps.
Understands Dependencies	Identifies order relevance correctly.	N/A	Struggles to identify why order matters.
Safety/Protocols	Identifies correct protocol choices.	Identifies 1 choice.	Unable to identify protocols.
Problem Solving	Creates a logical 3-step plan.	Creates a 1-2 step plan.	Plan is unclear or illogical.

Grade 1 Science: Instructions and Outcomes

Part 1: How We Get Instructions

Instructions are directions that help us do a task. They can come in many forms. Draw a line to match the picture to the type of instruction.

Image / Description	Type of Instruction
A teacher speaking to the class	Written
A picture of a "Stop" sign	Audio
Words written on a whiteboard	Visual
A bell ringing for recess	Verbal

Part 2: Putting Steps in Order

Instructions often need to be in a specific order to work. Look at the steps for making a peanut butter sandwich. Write 1, 2, and 3 in the boxes to show the right order.

- ☐ Put the two pieces of bread together.
- ☐ Get two slices of bread.
- ☐ Spread the peanut butter on the bread.

Part 3: Does Order Matter?

Sometimes, changing the order changes what happens. Other times, it does not.

Question: If you are putting on your shoes and your hat, does it matter which one you do first? Circle your answer.

YES (The order matters)

NO (The outcome is the same)

Question: If you are putting on your socks and your shoes, does it matter which one you do first? Circle your answer.

YES (The order matters)

NO (The outcome is the same)

Part 4: Safety and Respect

Instructions help keep us safe and show respect to others during science investigations.

Circle the "Safe" choice:

1. When your teacher gives instructions for a science experiment, should you:

   A) Start right away before they finish talking.

   B) Wait and follow every step carefully.

2. Why do we have safety protocols (rules) in the classroom?

   A) To keep everyone safe and show respect.

   B) To make things take longer.

Part 5: Solve a Problem

Work with a partner to think of a **3-step instruction** for a simple task, like washing your hands or cleaning a desk.

Our 3-Step Plan: