



EduTrend Contents

EDUTECH · STEM RESOURCES FOR STUDENTS · PRIMARY

Small Goal Coding

Set one small goal, code it in Scratch and explain what went wrong

Ages 8–11

Level: Developing

50 minutes

Individual · up to 30

Activity 02

Inside: activity at a glance · step-by-step session plan · facilitator notes · 3 pupil worksheets · assessment checklist

ACTIVITY 02 · AT A GLANCE

Small Goal Coding

Each pupil opens a simple Scratch catch game and sets one small goal from a menu, such as adding a score counter, a timer or a sound. They plan the steps, code, test and debug. At the end they explain to a partner what the project does, what went wrong and how they fixed it, just as they could at home.

Learning outcomes

By the end of the session pupils can:

- set a small, clear goal;
- plan steps before coding;
- debug independently;
- explain their project and bugs.

KEY WORDS

goal · variable · score · debug · test · explain

CURRICULUM LINKS

Maths: counting and variables.
English: explaining. PSHE: setting goals.

1**GOAL**

Set a small goal

2**QUESTION**

What do I want to know?

3**EXPLORE**

Use a trusted resource

4**MAKE**

Build, solve or record

5**EXPLAIN**

Tell someone

6**REFLECT**

What next?

Materials (per pupil)

- Devices with Scratch
- Starter catch game
- Goal menu cards
- Worksheets 1, 2 and 3

Before the session

- Prepare a starter project.
- Print goal menu cards.
- Check Scratch access.
- Print worksheets.

SAFETY

Use school or offline Scratch accounts. Do not share personal details when sharing projects.

ACTIVITY 02 · SESSION PLAN

Step by step

A small goal finished well teaches more than a big goal left half done.

Time	What happens	Say or ask
0–5 min Goal	Choose one goal card.	<i>“Is it small enough?”</i>
5–12 min Plan	Write steps.	<i>“Which blocks will you need?”</i>
12–38 min Code	Build, test, debug.	<i>“What happened when you tested?”</i>
38–45 min Explain	Explain to a partner.	<i>“What went wrong?”</i>
45–50 min Next	Set the next goal.	<i>“What will you add next time?”</i>

CHALLENGE CARD (print or copy onto the board)

Choose one small goal for a Scratch game, plan it, code and debug it, and explain what went wrong and how you fixed it.

ACTIVITY 02 · FACILITATOR NOTES

The learning know-how in brief

Short, regular coding sessions with a clear goal work better than one long session. A goal such as “add a score counter” is small enough to finish and check.

A score counter uses a variable: a named store that changes, such as adding 1 each time the player catches an object. Explaining bugs out loud helps pupils understand their code.

Common ideas to listen for

- “Bigger goals are better.” Small goals get finished.
- “Bugs mean I am bad at coding.” Everyone debugs.
- “My grown-up must know how to code.” They only need to ask questions.

Adapting the activity

Support

Choose the sound goal first.

Stretch

Add levels that speed up as the score rises.

WORKSHEET 1

My goal and plan

Name: _____

Class: _____ Date: _____

Plan before coding.

My goal and plan

Part	My plan
Goal	
Step 1	
Step 2	
Step 3	
Blocks needed	

WORKSHEET 2

Bug log

Record bugs.

Bug log

What went wrong	How I fixed it
1	
2	
3	

WORKSHEET 3

Explain my project

Tell someone about it.

What my project does and what I learned

FOR THE TEACHER

Assessment checklist

Use during the session. One sheet covers up to eight pupils; copy as needed.

Pupil	Sets a small goal	Debugs	Explains project

Suggested codes: W = working towards · E = expected · G = greater depth

ABOUT THIS ACTIVITY

Small Goal Coding is a sample activity from the EduTrend Contents Edutech STEM Resources for Students programme (primary, level: developing). Every activity in the programme follows the same format: a practical challenge, a clear session plan, facilitator notes and ready-to-print worksheets, so that teachers, club leaders and parents can run it without extra preparation.

Full 15-, 20- and 32-week programmes are available from EduStore at edutrend.org.

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