Teacher Guide: Code Monsters

https://www.tynker.com/hour-of-code/codemonsters

Time: 30 minutes
Grades: 3+
Difficulty: Intermediate

Students complete a set of 21 coding puzzles that introduce them to all the basic coding concepts they need to program their monsters.

Activity Requirements: This activity requires computers with a Web browser and an Internet connection. Headphones recommended.

Programming Activities

Solve 20 Coding Puzzles (30 minutes)

Students solve a set of 21 coding puzzles to learn how to program the monsters that they collect. The first puzzles are very simple and introduce basic concepts. As students progress through the set, they collect new monsters that they can program and the puzzles become more challenging. They learn and apply computational thinking concepts like sequencing and automation. At the end of this activity, students understand basic programming concepts like conditional logic and sequencing.

Hour of Code Certificate

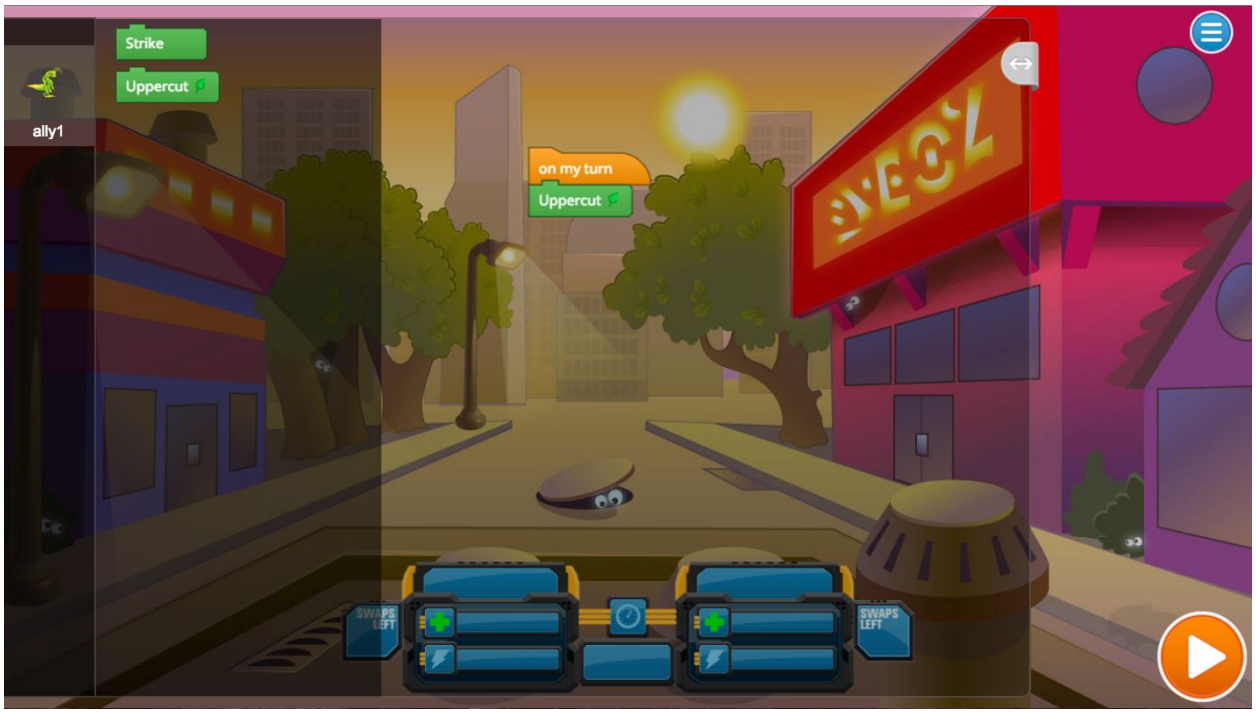
Be sure to download a personalized certificate for your students when they complete this activity.

Standards Mapping

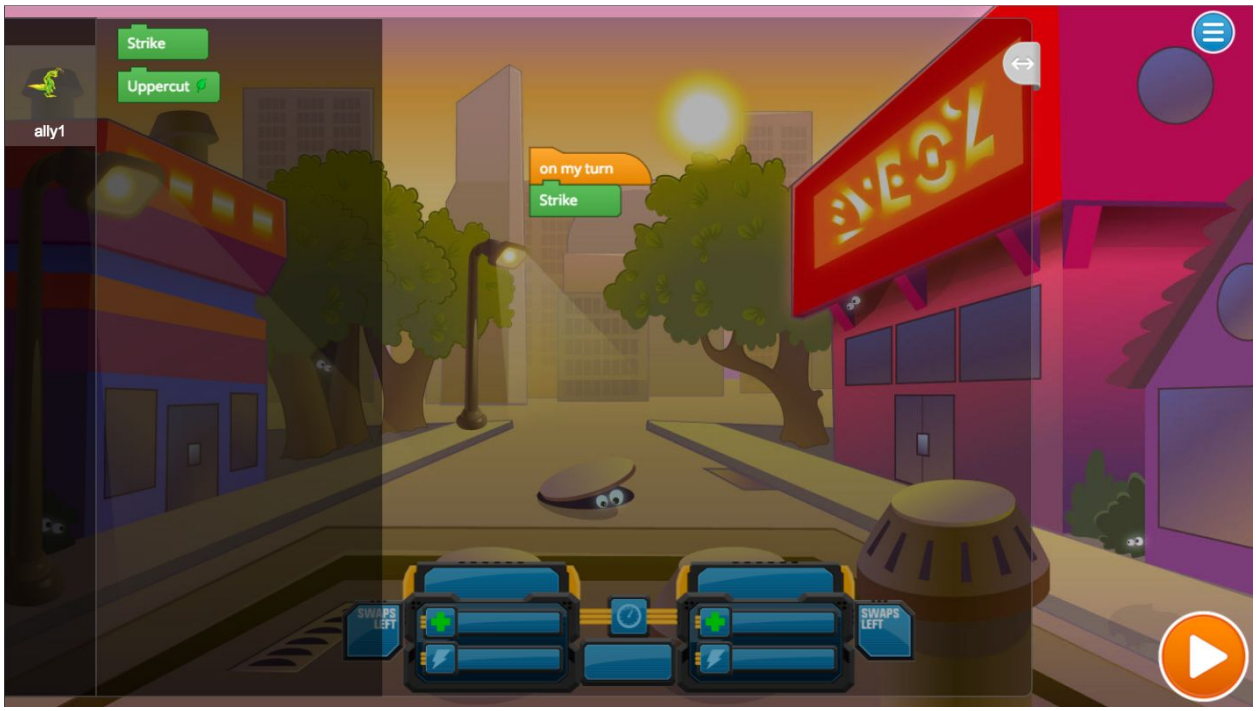
CCSS ELA: RI.3.3, W.3.6, RI.4.5, RI.4.3, RI.5.10, RST.6-8.4, RST.6-8.7, RST.9-10.5, RST.11-12.3
CCSS Math: MP.3.2, MP.3.8, MD.4.5, NF.4.7
CSTA: L1:6.CT.1, L1:6.CPP.5, L1:6.CPP.6, L2:9.CT.1, L2:9.CT.3, L2:9.CT.5, L2:9.CT.12, L2:9.CPP.3, L2:9.CPP.5

Puzzle Solutions

Puzzle 2



Puzzle 3



Puzzle 5

Puzzle 6

Puzzle 6

Puzzle 7

Puzzle 8

Puzzle 9

Puzzle 10


ally1
ally2
ally3
if is first turn? then
else if full energy? then
else
switch to ally1
Strike
Uppercut
Pray
Swiftness
on my turn
if is first turn? then
switch to ally3
else if full energy? then
Pray
else
Strike
SWAPS LEFT
SWAPS LEFT


ally1
ally2
ally3
if is first turn? then
else if full energy? then
else
switch to ally1
Fin Blade
Soak
Hydroshock
on my turn
if full energy? then
Hydroshock
else
Fin Blade
SWAPS LEFT
SWAPS LEFT

Puzzle 10 Cont.

Puzzle 11

Puzzle 12

Puzzle 13

Puzzle 13 Cont.

Puzzle 14


ally1
ally2
ally3
if attack boosted? and full energ
else if attack boosted? and ener
else if attack boosted? then
else
Body Slam
Thunderclap
Lightning Punch
Supercharge
on my turn
if attack boosted? and full energy? then
Lightning Punch
else if attack boosted? and enemy weak to my element? then
Thunderclap
else if attack boosted? then
Body Slam
else
Supercharge
SWAPS LEFT
SWAPS LEFT

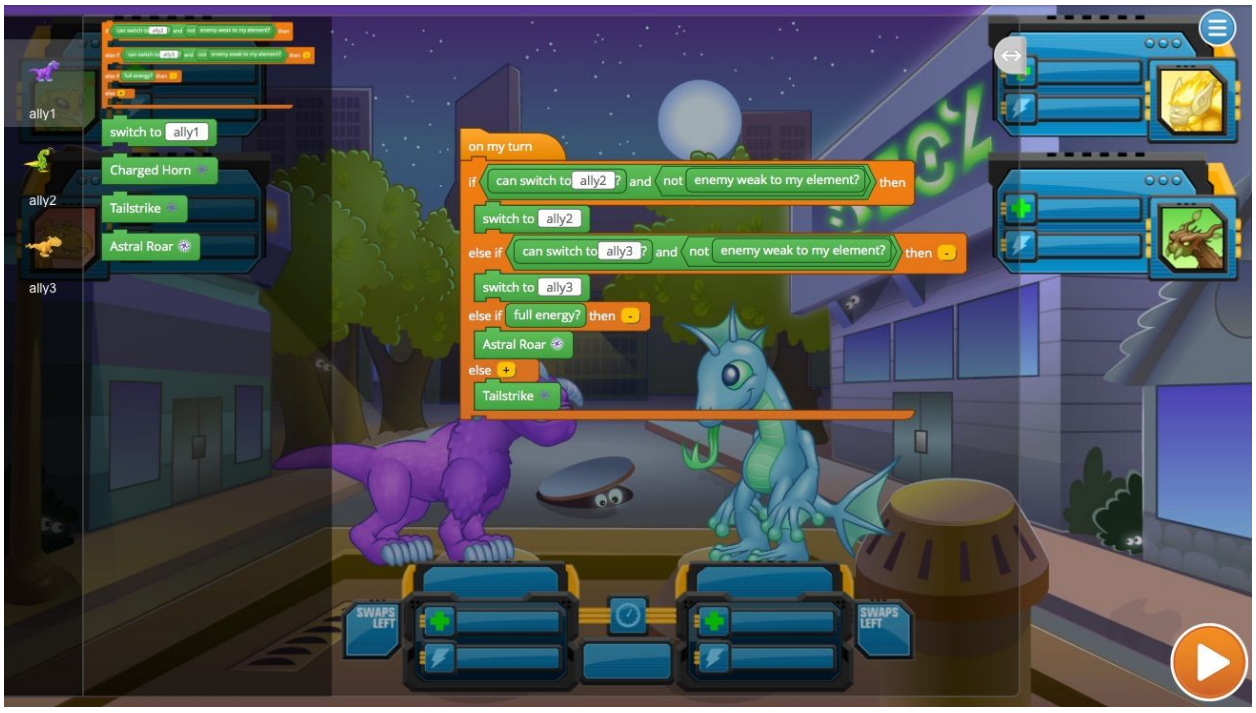

ally1
ally2
ally3
if full energy? then
else if enemy weak to my element?
else
switch to ally1
Strike
Uppercut
Pray
Swiftness
on my turn
if full energy? then
Pray
else if enemy weak to my element? then
Uppercut
else
Strike
SWAPS LEFT
SWAPS LEFT

Puzzle 14 Cont.

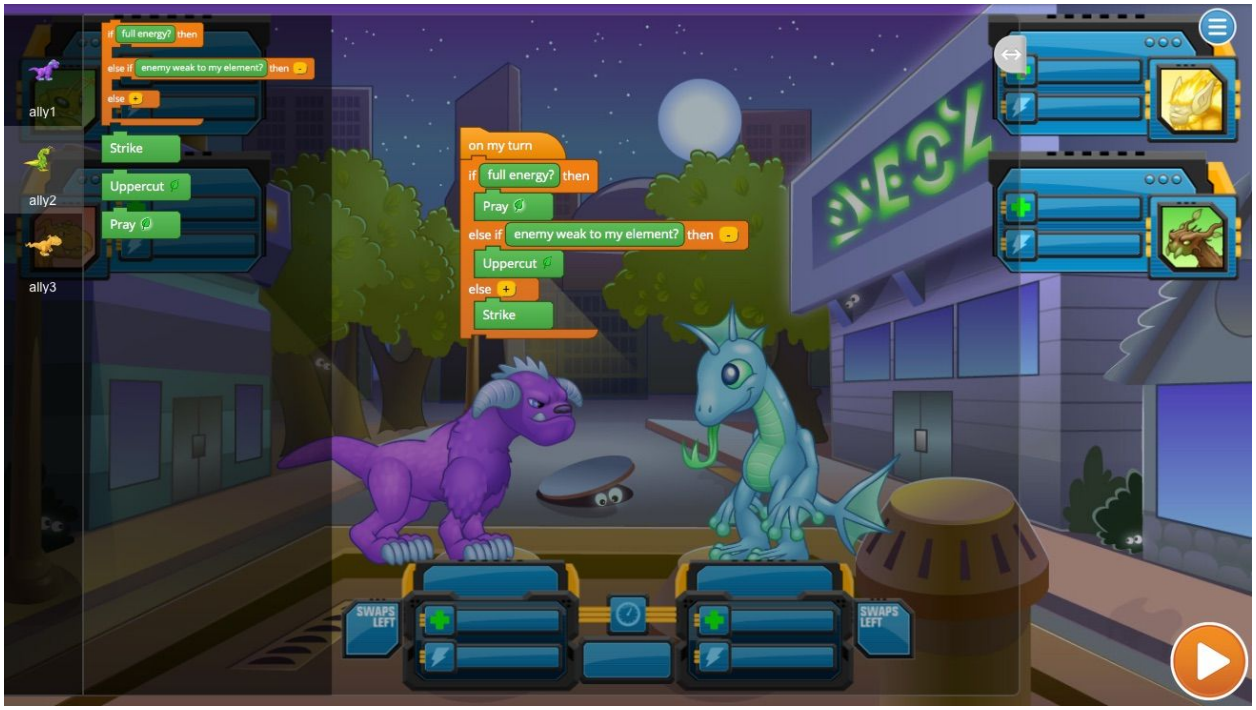
Puzzle 15

Puzzle 16

Puzzle 17



Puzzle 17 Cont.



Puzzle 18


ally1
ally2
switch to ally1
Fin Blade
Soak
Hydroshock
on my turn
if can switch to ally2 and element of opponent = lightning then
switch to ally2
else if full energy? then
Hydroshock
else if enemy weak to my element? then
Soak
else
Fin Blade
SWAPS LEFT
SWAPS LEFT


ally1
ally2
if full energy? then
else
Charged Horn
Tailstrike
Astral Roar
on my turn
if full energy? then
Astral Roar
else
Tailstrike
SWAPS LEFT
SWAPS LEFT

Puzzle 19

Puzzle 20

Puzzle 20 Cont.

Puzzle 21

Puzzle 21 Cont.

Teacher Guide to Tynker Hour of Code

Tynker's activities combine structured and open-ended components to support multiple learning styles. This experience emphasizes that programming requires not only knowledge of how to use a language, but also creativity and critical thinking to figure out how to build projects. Tynker is offering a wide variety of activities appropriate for all grades and experience levels.

What Tynker Provides

- Self-contained, game-based activities that students can complete with minimal support
- A combination of structured and open-ended activities that teach and allow students to create
- Puzzle solutions for all of our puzzles so you can give hints to any students who get stuck
- Common Core alignment for all activities
- A customized Hour of Code certificate for each activity that will show up in the student dashboard when a student completes an hour of programming

Why Children Love Tynker

- Tynker puzzles use game-based learning to teach programming and computational thinking concepts in a fun way
- Tynker tutorials guide students through all the steps to create storytelling projects, games, animations, and much more
- The Tynker Workshop allows students to create anything they can imagine with code
- Tynker's built-in Physics Engine makes it easy to create exciting projects
- Tynker's high quality media assets give students tons of creative options

Recommended Setup and Logistics

- Ideal environment: a computer lab, library, or classroom with your class
- Students can work individually or in pairs
- Students should have headphones if possible, but if not, you can turn the computer volume down
- Set up a free teacher account on tynker.com prior to the activity and add your students so you can track their progress and share a class showcase—and so students can continue working at home! (Note: Creating a teacher account is optional. You can complete your Hour of Code with Tynker without creating an account.)

We hope you take a look at all of our Hour of Code activities to figure out which one is right for your class. Join the global movement and host your Hour of Code with Tynker!