

Teacher Guide: Learn to Code with Monster High

<https://www.tynker.com/hour-of-code/monsterhigh>

Time: 60 minutes

Grades: 3+

Difficulty: Beginner

Students complete a set of 20 coding puzzles that introduce them to all the basic coding concepts they need to start building their own projects. Then they create and publish a music video where they use code blocks to choreograph the dancers.

Activity Requirements: This activity requires computers with a Web browser and an Internet connection. Headphones recommended. Scavenger Hunt is also available in the Tynker app on iPads and Android tablets. You can download the app from the [App Store](#) or [Google Play Store](#).

Programming Activities



Scavenger Hunt (40 Minutes): Solve 20 Coding Puzzles

Students solve a set of 20 coding puzzles to guide Monster High characters through a scavenger hunt. The first puzzles are very simple and introduce basic concepts. As students progress through the set, the puzzles become more complex. They learn and apply computational thinking concepts like sequencing, pattern recognition, and automation. At the end of this activity, students understand basic programming concepts like conditional logic, loops, and sequencing.



Dance Party (20 Minutes): Program a Music Video

Students follow step-by-step instructions to create and publish their own music video. They use code blocks to choose a setting, add music, choreograph the ghouls, and animate other Halloween-themed items in the scene. Each student will produce a unique project. When they're done with their music video, they can publish it and it might be featured in the Monster High Showcase.



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 1



Puzzle 2



Puzzle 3



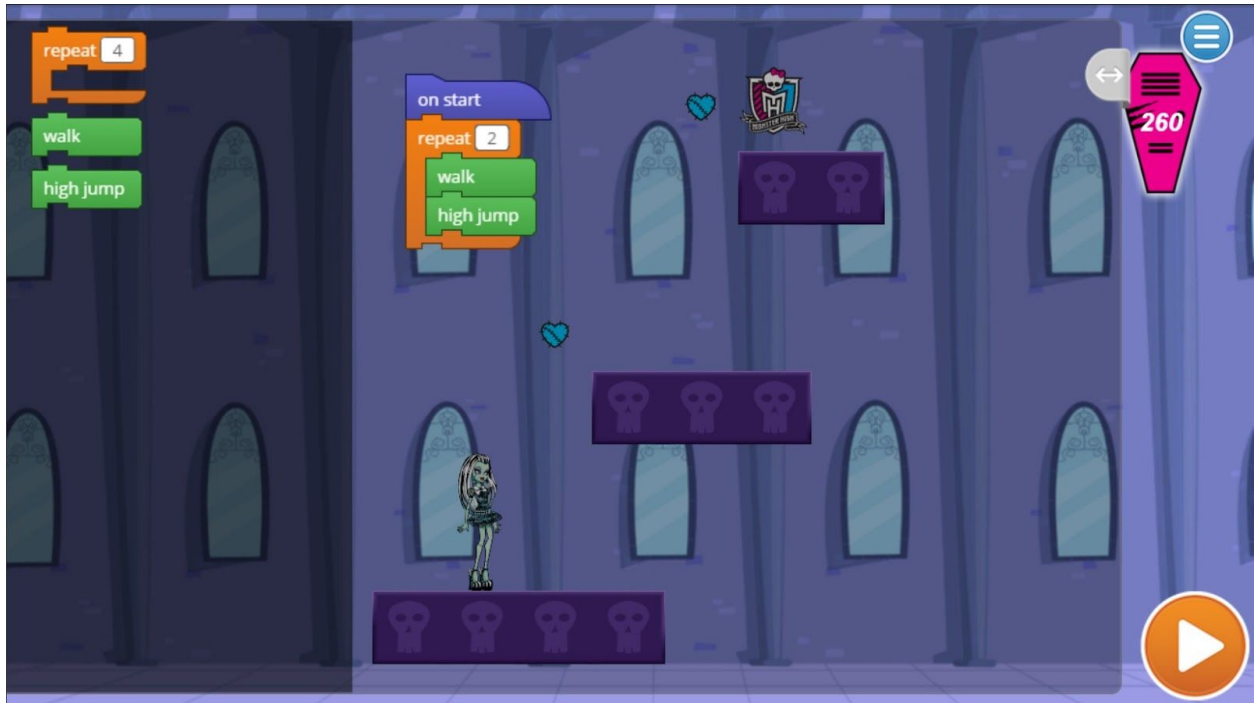
Puzzle 4



Puzzle 5



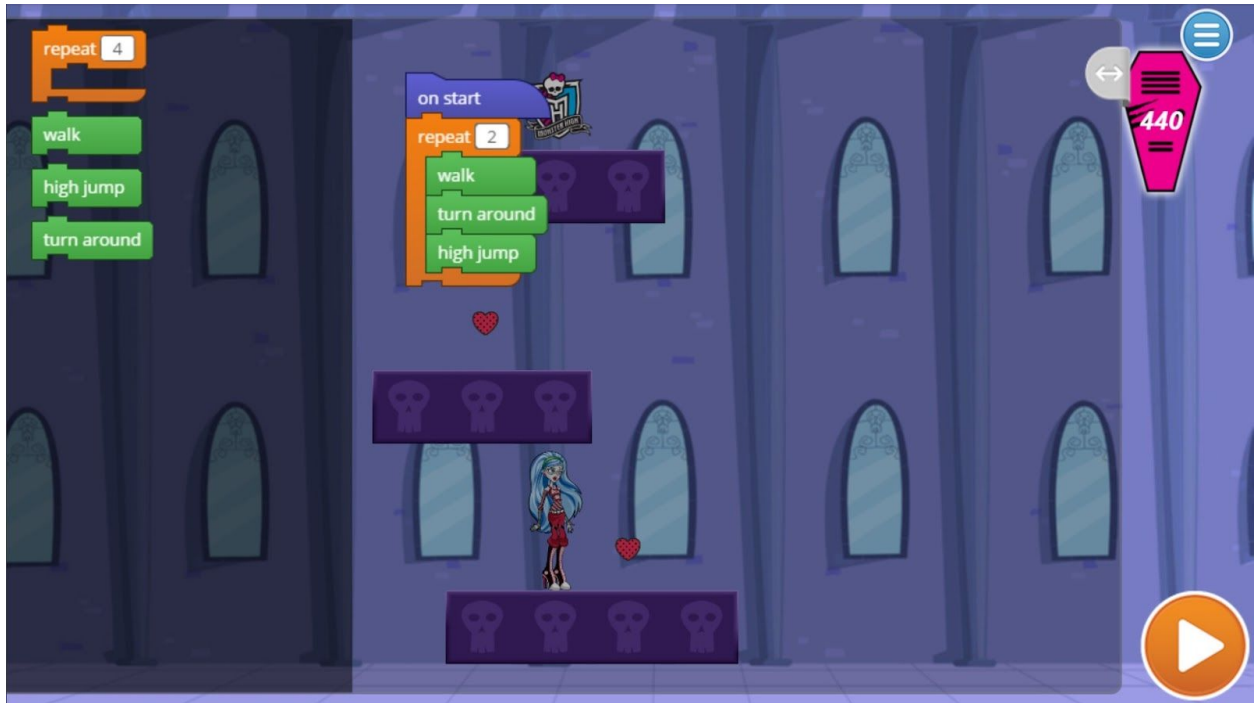
Puzzle 6



Puzzle 7



Puzzle 8



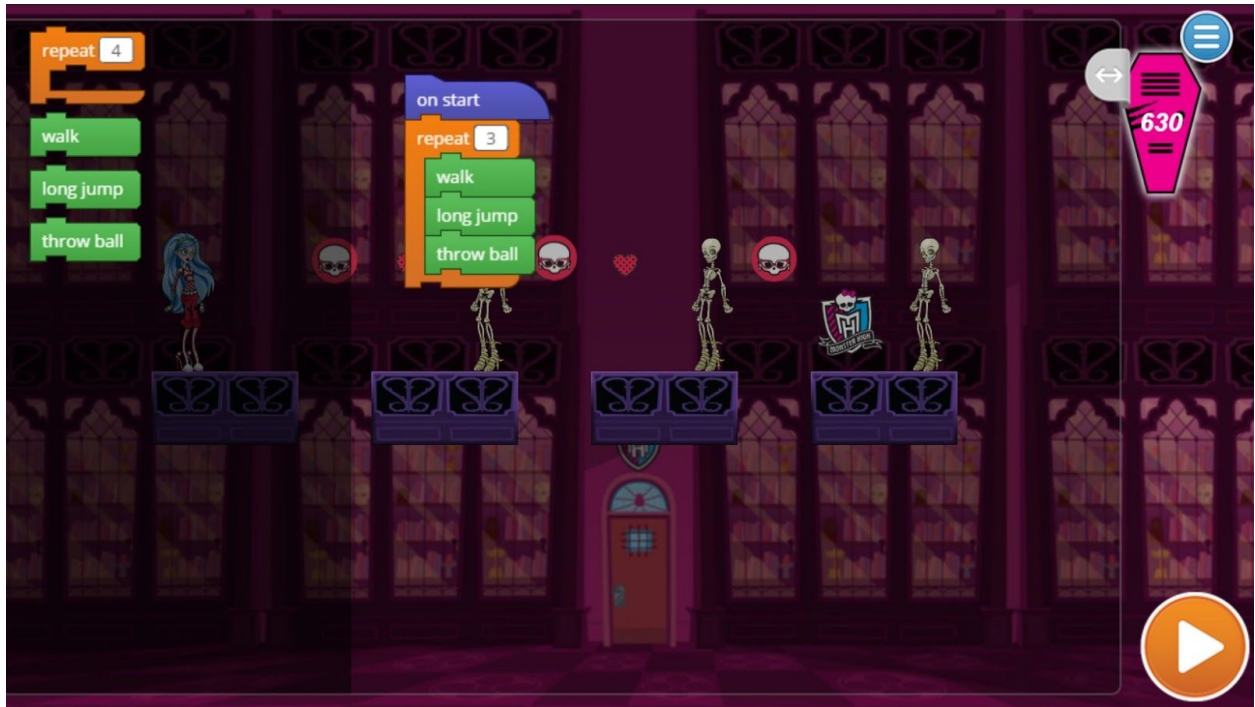
Puzzle 9



Puzzle 10



Puzzle 11



Puzzle 12



Puzzle 13

The screenshot shows Puzzle 13 in the game. The character is on a platform with a staircase. The score is 830. The code blocks are as follows:

```

on start
  repeat until crest
    walk
    if edge of platform then
      turn around
      high jump
  
```

On the left side of the screen, there is a separate code block:

```

repeat until crest
  if edge of platform then
    walk
    turn around
    high jump
  
```

Puzzle 14

The screenshot shows Puzzle 14 in the game. The character is on a platform with a skeleton enemy. The score is 910. The code blocks are as follows:

```

on start
  repeat until crest
    walk
    if edge of platform then
      long jump
    if enemy ahead then
      howl
      walk
      high jump
  
```

On the left side of the screen, there is a separate code block:

```

repeat until crest
  if edge of platform then
    if enemy ahead then
      walk
      long jump
      high jump
      howl
  
```

Puzzle 15

The code for Puzzle 15 is as follows:

```

on start
  repeat until crest
    if edge of platform then
      long jump
    if enemy ahead then
      turn around
      high jump
      walk
  walk
  long jump
  high jump
  turn around
  
```

Puzzle 16

The code for Puzzle 16 is as follows:

```

on start
  repeat until crest
    if edge of platform then
      long jump
    else +
      walk
  walk
  long jump
  
```


Puzzle 17

repeat until crest

if edge of platform then

if enemy ahead then

else

walk

turn around

high jump

throw ball

on start

turn around

repeat until crest

if edge of platform then

turn around

high jump

if enemy ahead then

throw ball

else

walk

1120

Puzzle 18

repeat until crest

if edge of platform then

if enemy ahead then

else

walk

high jump

transform

on start

repeat until crest

if edge of platform then

walk

high jump

if enemy ahead then

transform

else

walk

1230

Puzzle 19

repeat until crest

if edge of platform then

if enemy ahead then

else +

walk

high jump

long jump

turn around

mind control

on start

repeat until crest

if edge of platform then

long jump

walk

turn around

high jump

if enemy ahead then

mind control

else +

walk

1350

Puzzle 20

repeat until crest

if edge of platform then

else +

if enemy ahead then

else +

walk

high jump

long jump

turn around

howl

on start

repeat until crest

if edge of platform then

long jump

else +

if enemy ahead then

howl

walk

turn around

high jump

else +

walk

1470



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!