

Echo Explorers is a "born-accessible" interactive game designed for kids ages 6-8, featuring beloved characters from the PBS KIDS math and environmental adventure series, *Cyberchase*. Players explore the math concepts of directionality, spatial sense, and navigating a coordinate grid, and the science concepts of pollination and echolocation. The game incorporates accessibility features and universal design practices to support students with physical and cognitive impairments.

The game is playable from the *Cyberchase* website at **pbskids.org/cyberchase** on phones, tablets, and desktops, and is also available on the PBS KIDS Games App.

ABOUT THE GAME

Digit's cousin Brigit has a problem. The bats she relies on to pollinate her cactus apple plants have gone missing. Turns out Hacker has trapped them in nearby caves, and it's up to the CyberSquad to free them! In each of six cave levels, the player will help the Squad find the parts to assemble a "cave crasher" machine to free the bats. But since the kids don't have any light to see in the caves, they must use a process that bats and even some people who are blind—use, called **echolocation**. Players send out pings and use the echoes that bounce back to locate hidden items. Once they locate the three parts of the cave crasher, they can break down Hacker's wall and free the bats in that level. When the mission is complete, the bats can return to Brigit's garden to pollinate her cactus apple plants once again!



LEVELING AND OTHER FEATURES

At the end of each level, players can choose to advance to a more challenging cave, stick with the same level cave, or play a previous level. Levels vary in difficulty based on grid size and movement (by swipe/tap/click/arrow keys, or by entering coordinates), with more challenging levels enabling players to free more bats. At any point in the game, players may customize their gameplay experience as they wish, using the settings described below.





USING THE ACCESSIBILITY SETTINGS

Echo Explorers is designed to allow children of all ability levels to play regardless of their sensory or physical challenges. While some features, such as closed captioning, high contrast backgrounds, and hints, are default features in this game, many features (described below) are adjustable to meet a child's needs or preferences. It is impossible to say which settings will work best for a child because each child is unique. The guidelines below provide a starting point. Many children, with and without disabilities, may enjoy adjusting the settings to improve their experience.

TO OPEN THE SETTINGS PANEL, select "Set up my game"



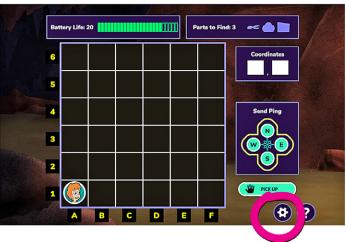
from the main title screen

or the gear-shaped settings icon



from any other point within the game.





If your child uses a **keyboard** or **switch*** to play games:

The entire game can be played using only 6 keys or by assigning these keys to your switch device.

- The **tab** key moves through the controls on each screen. (Note that **shift+tab** moves backwards through the controls.)
- The **enter** key allows you to select an item.
- The four **arrow** keys move your character around the grid in the cave.

* A switch is a device that assists some people with severe physical or cognitive impairments in using computers or other electronic devices.



If your child uses **eye-tracking*** or **head-tracking*** to play games:

Turn on the <u>dwell activation</u> feature from the home screen of the game. This will enable your child to use their eye-tracking or head-tracking device to play the game.



If you want to turn the dwell feature on or off after gameplay begins:

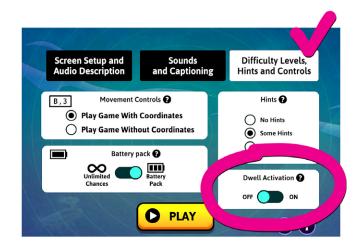
• Select the gear-shaped settings icon.



• Choose "Difficulty Levels, Hints and Control."



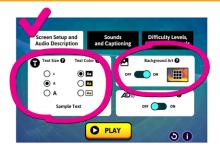
• Turn the Dwell settings on or off in the lower right corner of the screen.



* Some people with severe physical or cognitive impairments use eye-tracking or head-tracking devices to control their computers or other electronic devices.



If your child cannot see:



Adjust the visual images on the screen.

Open the Settings Panel. Select "Screen Setup and Audio Description."

- On the left, you can adjust the size and color of the text used during the game.
- On the upper right, you can turn off the background art if your child cannot see or focus on the game with the extra images.

If your child cannot see the screen well:

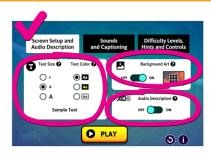


Turn on <u>audio description</u> to provide additional narration about what is on the screen.

Open the Settings Panel. Select "Screen Setup and Audio Description."

- On the lower right, you can turn audio description on or off.
- When audio description is turned on, players can replay the audio description at any time by pressing the spacebar.

If your child is **easily distracted by what they see**:



Adjust the visual images on the screen.

Open the Settings Panel. Select "Screen Setup and Audio Description."

- On the left, you can adjust the **size and color of the text** used during the game to be the least distracting for your child.
- On the upper right, you can turn off the background art.
- On the lower right, you can turn on audio description, which describes key pieces of visual information and may help your child focus on the most important part of the screen.

If your child **likes extra explanations** about what is happening on the screen:



You can turn on <u>audio description</u> to provide additional narration about what is on the screen and help your child better understand the game.

Open the Settings Panel. Select "Screen Setup and Audio Description."

- On the lower right, you can turn audio description on or off.
- When audio description is turned on, players can replay the audio description at any time by pressing the spacebar.



If your child cannot hear:



<u>Closed captioning</u> is on by default when the game begins.

If closed captioning is turned off, use the following steps to turn it back on.

Open the Settings Panel. Select "Sounds and Captions."

• On the top right, you can turn captions on and off.

If your child cannot hear the game well:



If your child wants to adjust the volume of the voices, music, and/or sounds:

Open the Settings Panel. Select "Sounds and Captions" tab.

 On the left, you can adjust the volume of the voices, music, and sound effects.



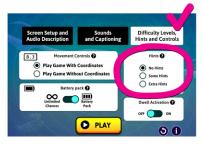
If your child is unable to hear the "ping" sound effect used in the game:

Open the Settings Panel. Select "Sounds and Captions" tab.

 On the bottom right, your child can choose between three sound effect options.

If your child is sensitive to noises and sounds:





You can adjust the volume of voices, music, and sounds, and even turn off auditory hints.

To adjust the sounds:

Open the Settings Panel. Select "Sounds and Captions."

- On the left, you can adjust the volume of the voices, music, and sound effects or turn them off completely.
- On the bottom right, your child can choose between three sound effect options to select the one they like best.

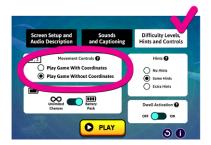
To turn off hints:

Open the Settings Panel. Select the "Difficulty Levels, Hints and Controls" tab at the top of the screen

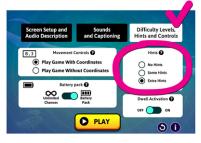
 On the upper right, you can choose "no hints" to remove auditory hints from the game.



If your child want or needs **extra support** when playing the game:







If your child is frustrated with the coordinate entry or does not understand it:

Open the Settings Panel. Select "Difficulty Levels, Hints and Control." In the first three levels of the game, children move their character with arrow keys or swipe/tap/click, and in the last three levels, children move their character by entering grid coordinates. If your child is frustrated with the coordinate entry or does not understand it, select "Play Game Without Coordinates" on the top left to play all levels with swipe/tap/click or arrow keys.

If your child needs more chances to find the parts, select "Unlimited battery pack" on the lower left.

If your child would like additional hints to guide them through the game, select "extra hints" on the top right.











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