

PLANETEERS

SUIT UP FOR ADVENTURE!

SERIOUS GAMING IN THE CLASSROOM

SCHOOL EDITION

LOGIN

REGISTER

PLANETEERS HELP GUIDE

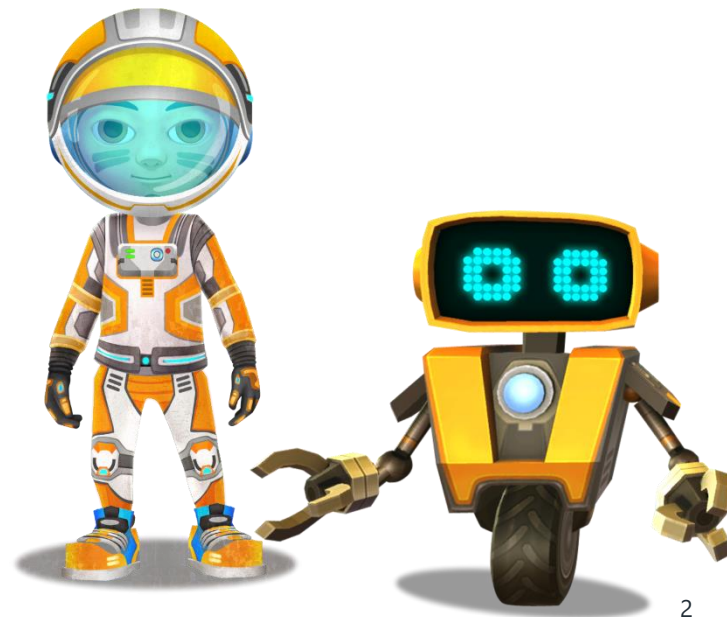


Help Guide



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MINIMUM Requirements

Follow the steps below to download the latest Planeteers game version for new features, quests and updates. Please see the minimum and recommended specifications below for Windows and Mac.

PC Minimum Specifications: Intel Core i3 2 GHz, 2GB RAM, keyboard & mouse, 16:9 1600x900 screen resolution

Recommended Specifications: Intel Core i5 2 GHz, 4GB RAM, 1GB Graphics Card, keyboard & mouse, 16:9 1600x900 screen resolution

Mac Minimum Specifications: Intel Core i3 2 GHz, 2GB RAM, keyboard & mouse, 16:9 screen resolution, Mac OS 10

Recommended Specifications: Intel Core i5 2 GHz, 4GB RAM, 1GB Graphics Card, keyboard & mouse, 16:9 screen resolution, Mac OS 10 or higher



Need Help?

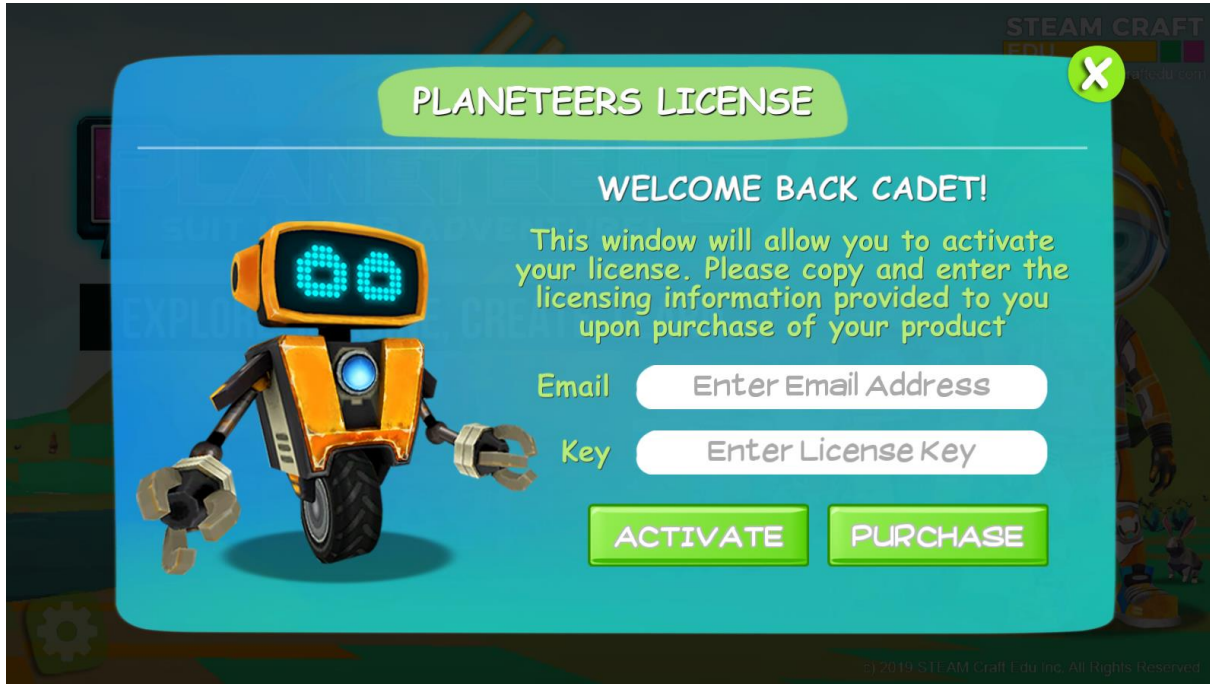
If any questions or issues,
Please contact our school
community support team
support@steamcraftedu.com

Planeteers



License Verification

To access the game, you need to first activate it using a Trial or Paid License.
You can get a license via our website at www.planeteersgame.com



Game Guide

The Trial License gives you access to the game and can be used for 10 game sessions on two devices.

For unlimited access, you can buy the Paid License from our website. It can also be used to activate two devices.

Quick Play Guide

Jump in and Play!

Planeteers has an in-game onboarding feature which introduces players to the basic controls and features as part of their first game session. The game also has context sensitive help, hints and a digital game manual.

Mission control and Socket the robot also help guide players. We highly recommend just jumping in and playing the game for 30-45 minutes, building skills via onboarding with Socket at your side!



Avatar Controls

Introduction

During the game, the avatar can do many things such as walking, running, jumping, and swimming. The avatar can also get in and out of vehicles, drive cars and boats, and fly machines too.

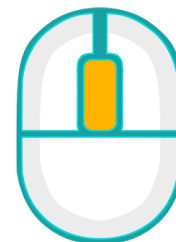
Action	Control
Walking	Point and hold left mouse button in the direction you would like to walk
Running	As above but drag the mouse in the direction you would like to run
Jumping	Spacebar
Swimming	Similar to walking, look down to swim to bottom, and up to surface for air
Looking Around	Hold right mouse button and move mouse up/down/left/right to look around
Zoom in or out	Scroll wheel
Get into vehicles	Click on the cockpit seat twice
Exit vehicles	Press ESC button/Click on the seat twice



Move



Look Around



Zoom
Camera



Avatar Controls



Introduction

The avatar can also swim and dive in bodies of water to explore marine life. There are special gears in the game that can be used to extend air duration underwater.



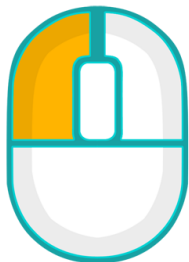
Game Guide

The movement controls are similar when swimming underwater, but the EXP bar will change to the AIR meter. When air runs out while swimming, the avatar will be instantly teleported back to the surface. Swimming also consumes stamina.

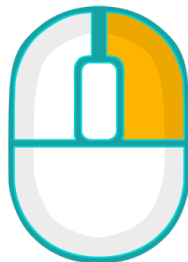
Avatar Controls

Driving a Car, Boat, or Flying Machine

The player must use build mode to make a car/boat/machine using building blocks and action blocks such as an engine, wheel, battery, power core, and steering wheel.



Move



Look Around

Action	Control
Entering vehicle	Double click driver's seat
Driving vehicle	Point and hold left mouse button. Spacebar for acceleration.
Exit vehicle	Press ESC or double click Cockpit Seat



Exit Vehicle



Accelerate



User Interface



Main Game Screen & Controls

Below is a guide to the main game screen icons and their functions.

Socket's energy bar

Avatar's energy bar

Experience Points

Click to open map

Click to launch quest

Click to launch
Quick Inventory

Click to open Tools menu



User Interface

Quick Inventory

Click on the backpack icon to access the Quick Inventory



Inventory	Purpose
Terrain Deform	Allows you to dig, terraform or flatten terrain
Lights	Inventory for lights that your avatar has
Gears	Bag for different gears that you can use on the field
Food	List of foods that you have in stock
Bots	Bag for bots that you have built
Crafting Machines	List of machines that you can use for crafting food, clothes, bots and other machines

Inventory Items

Click to access Quick Inventory

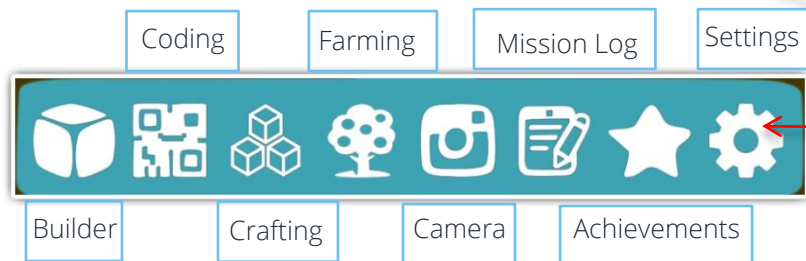
User Interface

Tools Menu

Click on the up arrow icon to launch the tools menu



Tool	Purpose
Builder	Build objects, machines, houses & vehicles
Coding	Code objects, machines & robots with blockly
Crafting	Craft gears, components, food, bots & animals
Farming	Farm crops and animals for food
Camera	Take and name your pictures and view your picture gallery
Mission Log	Write new mission logs or edit existing entries
Achievements	See active quests, badges and mission computer
Settings	Change in-game settings for sound and text



Click to launch tools menu

User Interface

Avatar Customization

Click on the Avatar's icon or Socket's icon to open the customization menu



Avatar's Level



Customize your avatar



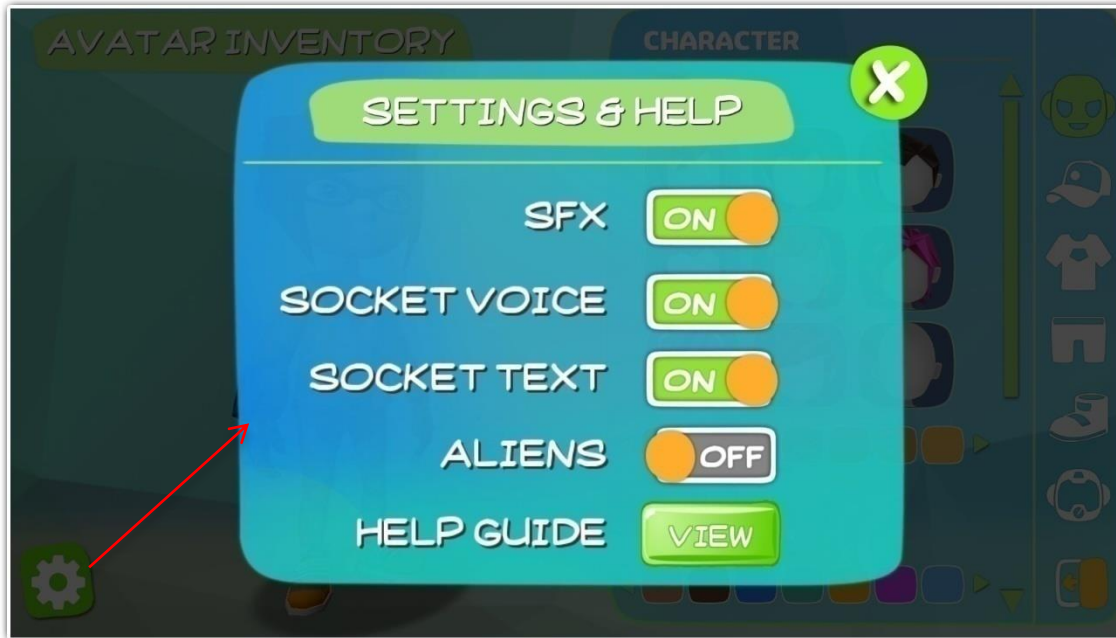
Customize Socket

User Interface



Settings

Click on the Gear Icon to access and toggle the game settings. This includes sounds and Alien settings.



Settings	Purpose
SFX	Turns game music and other sound effects on/off
Socket Voice	Turns Socket's and Mission Control's voice on/off
Socket Text	Turns Socket's and Mission Control's text box on/off
Aliens	Turns the Aliens side story on or off. In Education Edition, this is disabled and can only be enabled with the use of the Teacher's Dashboard.
Help Guide	Shows a layout of all in-game controls

Map and Atlas

Map Guide

The map shows avatars location, important landmarks and allows access to other continents via the world map. Crafting a compass will also unlock the Quest Map Tracker feature.

Click mini-map to launch full map

Open the map to see all available quests;
they are color-coded by type

Click quest marker to warp to location

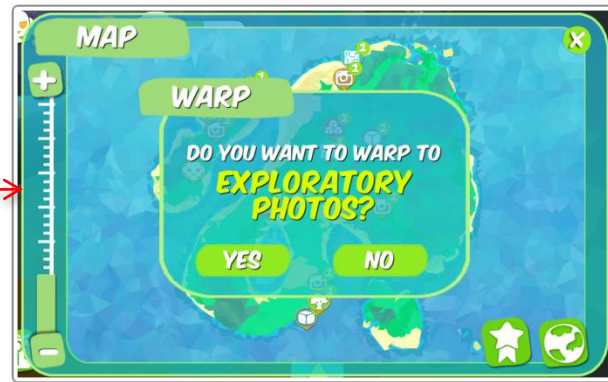
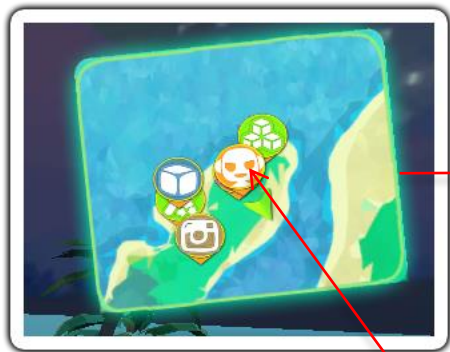
You are here

Click to open the Quest Tracker

Click to launch the Solar System map

There are five Continents with habitats

- Tropical Rainforests
- Savanna Grasslands
- Alpine Forests
- Desert Oasis
- Polar Cap



Map and Atlas

Opening the Atlas

The Atlas will allow players to move from one continent to another. This also gives them a great view of the entire Solar System. Click on the Home World to take a closer look at the continents.



Game Guide

Click the globe icon to access the Atlas, and see the entire Solar System.



Map and Atlas

Atlas - Home World

Each continent in the Home World is represented by an animal icon. When clicked, it will show the continent's progress and some important factoids. To unlock the next continent, players need to fill up at least 30% of progress in the current continent.



Game Guide

Finishing quest and doing other activities in the continent will slowly fill up this meter. players will get an in-game notification when a new continent is ready for exploration.



Avatar and Robot Energy Dynamics



Introduction

During the game, the avatar and Socket expends energy as they complete quests and explore the different habitats.



Game Guide

Avatar & Socket's Energy Bars.
The avatar needs food to restore energy. Socket uses solar energy to recharge.

Avatar and Robot Energy Dynamics



Day and Night Cycles

Time is also active in-game, making day and night cycles possible. Animals are more active during the day. On the other hand, all lighting gear will automatically turn on during the night, making it the perfect time for stargazing. Depending on the game settings, players can experience alien attacks or supply crates at night.

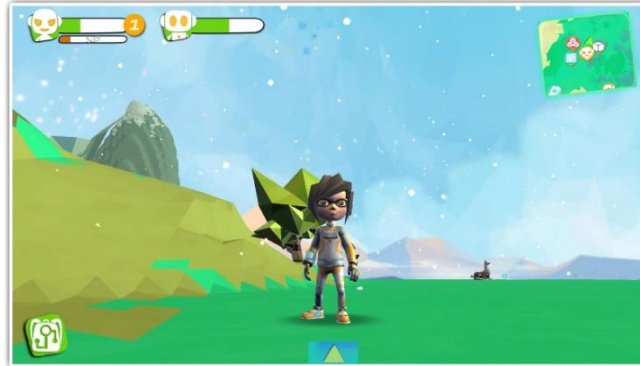


Avatar and Robot Energy Dynamics



Types of Weather

Weather can change anytime in this newfound planet, and it has four types: Sunny, Hail, Snow and Rain. Players can tell the difference by closely observing the their surroundings and the weather patterns.



Game Guide

These are the different types of weather. On the upper left, the weather is raining hail. On the upper right, it's snowing. On the bottom picture, it's raining. It's characterized by the following:

- Hail – it falls to the ground fast, and hail is round in shape like snow
- Snow – falls to the ground much slower than hail
- Rain – raindrops that gradually get stronger

Avatar and Robot Energy Dynamics



Extreme Weather & Energy

The avatar and Socket will lose more energy in extreme conditions like the Arctic and Desert Oasis. This can be minimized by wearing protective clothing and upgrading Socket's chassis.



Game Guide

Weather affects the avatar's energy level, just like in real life. Both the avatar and Socket will lose energy faster in extreme environments like snow or heat.

Avatar and Robot Energy Dynamics



Sleep & recharging energy

If the avatar and Socket's energy bar is depleted, both will go into sleep mode to recharge their energy levels.



Game Guide

Once they use up all their energy, the avatar and Socket will automatically recharge in sleep mode.

Maintain the avatar's energy levels using food.

Maintain Socket's energy by docking the robot with batteries or by launching solar mode.

Questing

Quest Map Tracker

Crafting a Compass early on will unlock the Quest Map Tracker. Players can use it to filter out specific quests or paths for easier navigating.



Game Guide

The compass is required to access the Quest Map Tracker. To open the feature, click on the medal icon found beside the Atlas icon.

Questing

Filtering Quest Types

To filter, select Quest type to be displayed on the map. The quests in that category will be displayed in sequence in increasing difficulty from 1 to 4.



Game Guide

Select Quest Type

Select Show path "On"

Click on Save



Questing



Quest Icons & Types

Quest category icons are summarized below.



Blockly Quests



Builder Quests



Collecting Quests



Crafting Quests



Harvest Quests



Journal Quests



Mining Quests



Painting Quests



Photo Quests



Quiz Marker



Game Guide

Quests are color coded.

Green icons mean the quest is completed.

Icons 1-4 relate to difficulty level

Questing



Introduction

By completing quests, players learn STEAM concepts and skills and earn experience points (XP) in science, technology, engineering, arts, and math.



Game Guide

To start a quest, click on the quest marker.

Questing



Starting a Quest

Instructions and fun facts are displayed to help the player complete a quest. Quests types range from easy to difficult levels, from Level 1 to Level 4.



Game Guide

To begin the quest, click on the quest marker on the map and click on "Start" when it appears. Carefully read the instructions given to complete it.

You can click the Play button that will appear to know more fun facts or replay the message.

Questing



Completing the Quest

There are different types of quests that the player will encounter during play. Each quest will provide the player with instructions or hints on how it can be completed.



Game Guide

The quest here is a builder quest, and it requires the player to build a rocket. Players can still complete the quest even if they deviate from the original design to some extent.

Quest Progress Meter

This meter shows the progress of the quest that you're doing. It is displayed on the upper left side of the screen

Questing

Quest Complete!

Once the player finishes the quest, they are awarded XP for their badges and may also unlock rewards from a reward box.



Game Guide

Click on "Rewards" to claim it.

Questing

Reward Boxes

When finishing the quest, there's a chance of claiming a reward. The player has to choose from three boxes containing a random reward.



Game Guide

The player has to choose one box from the selection.

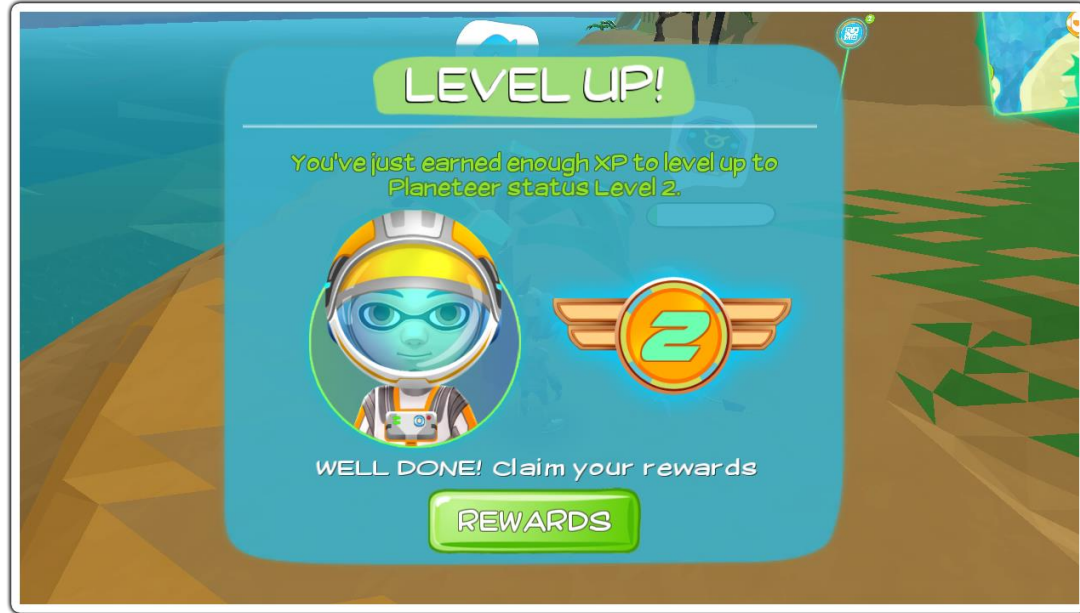


Questing



Leveling Up

Whenever you finish a quest or get achievements, your avatar earns experience points. If you gather enough experience points, your avatar will gain a level. You will also earn rewards when you level up.

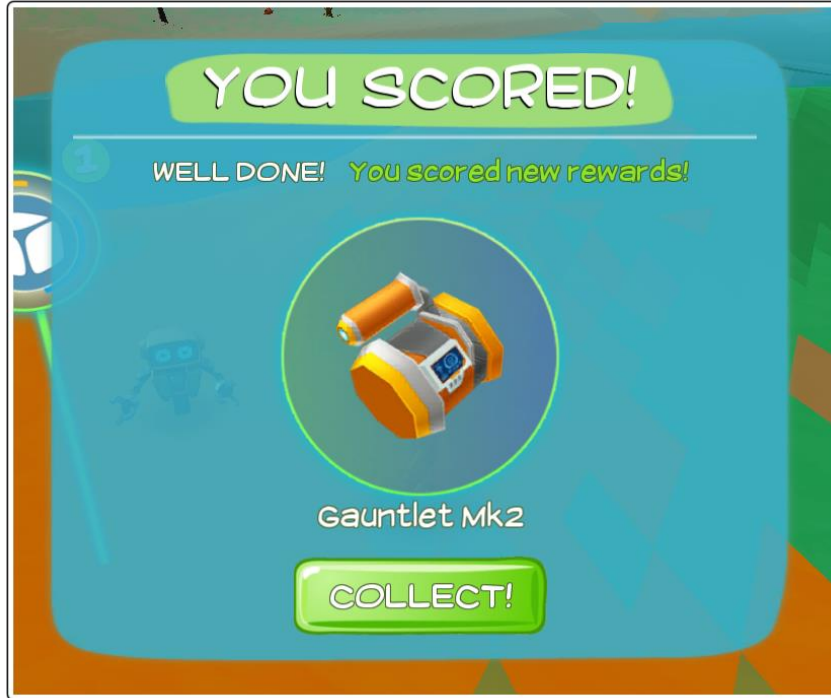


Questing



Leveling Up

Upon reaching certain levels, players will unlock special gadgets to help with their adventure. Some of the unlocked gadgets will be necessary for them to make progress in-game.



Game Guide

You will unlock many upgrades as you reach higher levels, like new gauntlets to unlock other terraforming skills and special full set costumes.

Questing

Level Badges



Game Guide

When leveling up, players will also earn badges respective of their level. Levelling up unlocks rewards that help progress in the game and complete new challenges.

Questing

Badges

Your avatar will also get points for a skill badge whenever you finish a quest. Once you get enough badge points, you will earn a badge together with an achievement.



LEVEL 1 SCIENCE

EARTH AND SPACE SCIENCE



EARTH SCIENCE 101



SPACE SCIENCE 101



CLASSIFICATION

BIOLOGICAL SCIENCES



NEWBIE BIOLOGIST



ECOSYSTEM 101



TERRAFORM SKILL

PHYSICAL SCIENCES



PHYSICS 101



MOTION & MATTER



ENERGY

Questing

Badges



LEVEL 1 SCIENCE

EARTH AND SPACE SCIENCE



EARTH SCIENCE 101



SPACE SCIENCE 101



CLASSIFICATION

BIOLOGICAL SCIENCES



NEWBIE BIOLOGIST



ECOSYSTEM 101



TERRAFORM SKILL

PHYSICAL SCIENCES



PHYSICS 101



MOTION & MATTER



ENERGY

LEVEL 1 TECHNOLOGY

CODING



BLOCKLY CODE 101



DEBUGGER



BASIC COMMANDS



REMTING 101

ROBOTICS



ROBOTICS 101



ROBOT REPAIRER



BASIC AI

SYSTEM ANALYSIS



HABITATS 101



SYSTEMS 101

POWER AND ENERGY



POWER UNITS 101



ENERGY

MAKING



CONSTRUCTION 101



COMPONENTS



Game Guide

Badges are organized by STEAM pillar and concept. Players earn badges by completing quests that are scattered throughout the game. Check the badge progress by clicking the Achievement's 'Star' icon in the Tools menu.

Questing Badges

LEVEL 1 ENGINEERING

DESIGN PROCESS
FOR INNOVATION



DESIGNER 101

SIMPLE AND
COMPLEX MACHINES



MACHINES 101

FOOD PRODUCTION



DONT STARVE



NEWBIE FARMER



NUTRITION

NATURAL AND BUILD
ENVIRONMENTS



ENGINEERING 101



HABITATS 101

LEVEL 1 ARTS

COLOR AND
STYLE



ART 101



STYLING

MUSIC AND
SOUND



MUSIC



SOUND FX

PHOTOGRAPHY



PHOTOGRAPHER



STAR GAZER

LEVEL 1 MATHEMATICS

CALCULATION



CALCULATOR

DATA



NUMBER CRUNCHER



DATA 101

SHAPES AND
REPRESENTATION



SHAPES



PATTERNS

Questing

Coding Badges



AI Designer



Blockly Master



Coding Cadet



Coding Specialist



Drone Technician



Game 101



Game Guru



Hacker



Robotics Coder



System Engineer



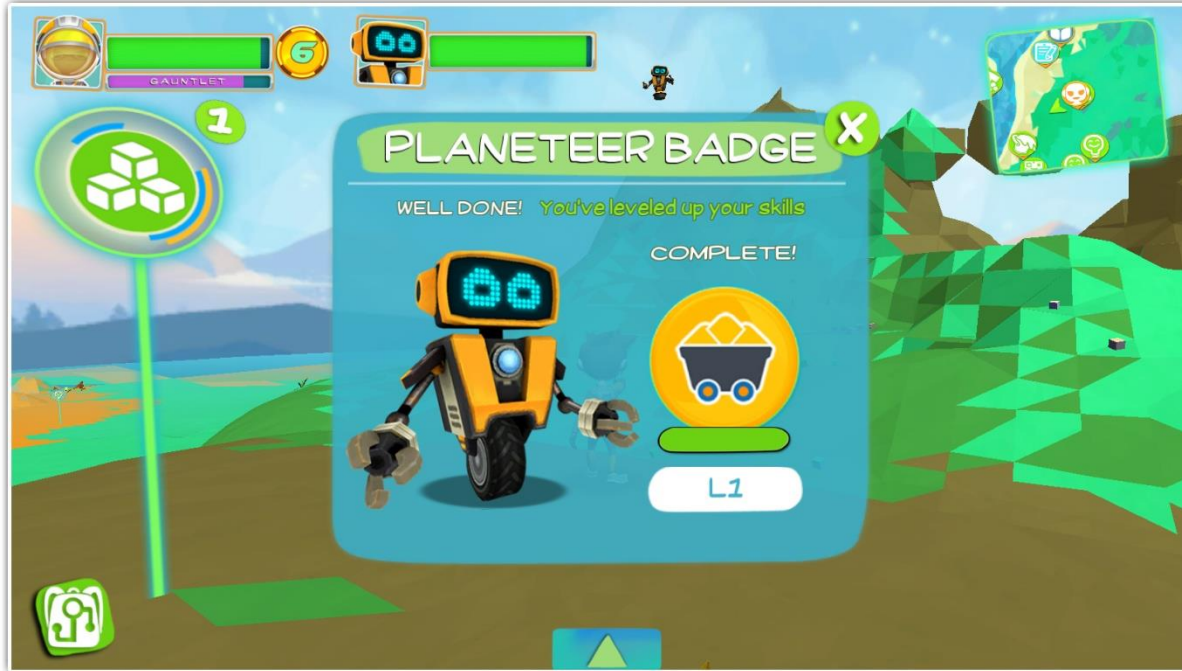
Game Guide

Coding Badges are special badges that you can get for mastering Blockly. Each Blockly corresponds to a different set of badges, so try to finish all of them.

Questing

Planeteers Badges

Doing different activities frequently on sandbox mode also gives the player points to get Planeteers Badges. These badges measure the mastery of the player in using a feature of the game such as mining, building, etc.



Questing

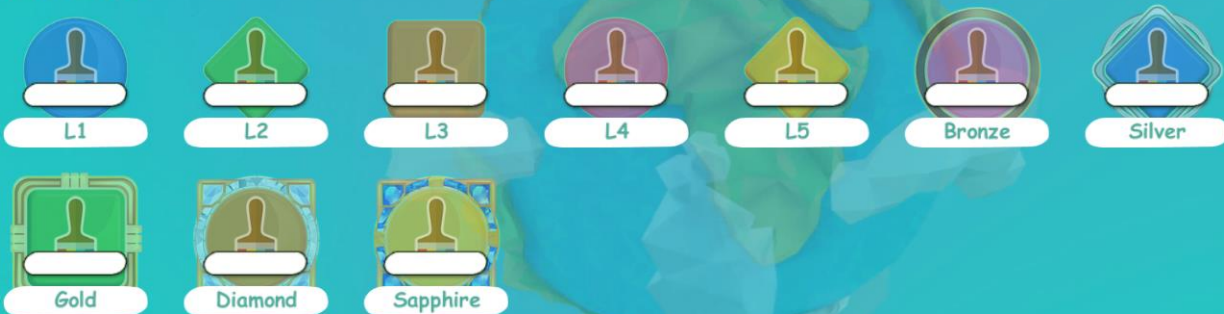
Planeteers Badges



BUILDING



PAINTING



Game Guide

Planeteers Badges are organized by the different activities in the game. They are ranked from Level 1 to Sapphire badges as seen in the image. The activities that can reward players with badges are:

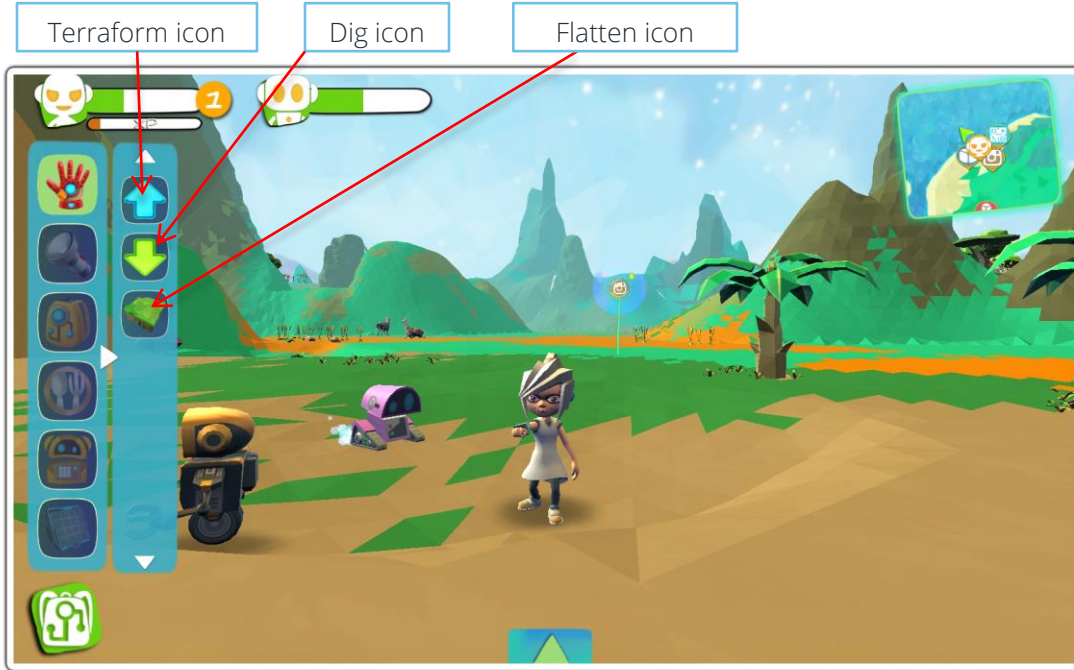
- Building
- Painting
- Blockly
- Farming
- Mining
- Terraforming
- Photography
- Mission Logs
- Basic Crafting
- Advanced Crafting
- Robotics
- Alien Strategies
- Mission Time

Mining & Terraforming



Introduction

STEAM Craft has powerful mining and terraforming features using the player's gauntlet. Mining is critical for success in the game as the player must find resources to craft items for building, and other activities.



Game Guide

To start mining, you need to access the Terrain Deform option from the Quick Inventory. You can choose from dig, raise or flatten terrain.

Select the dig option and the robot will collect elements and genetic materials from mining. When done, simply click the gauntlet again.

Be mindful of the gauntlet's energy bar. If it depletes, it will need to recharge before terraforming can continue.

Mining

Elements found by Mining



Wood



Titanium



Rock



Metal



Water



Chicken



Horse



Tiger



Bear



Carbon



Gold



Glass



Silver



Copper



Zebra



Giraffe



Elephant



Pig



Diamond



Radium



Lead

Flattening

Flattening Tool

The gauntlet also has a flattening tool which can be used to repair land which has been mined or flatten terrain in preparation for building.



Game Guide

Click on the flattening icon to flatten the land after it has been mined.

Terraforming

Terraforming Process

Terraforming allows players to sculpt and morph the land. It allows them to completely change the environment by building rocky structures which may include hills, bridges, islands and other terraforming projects.



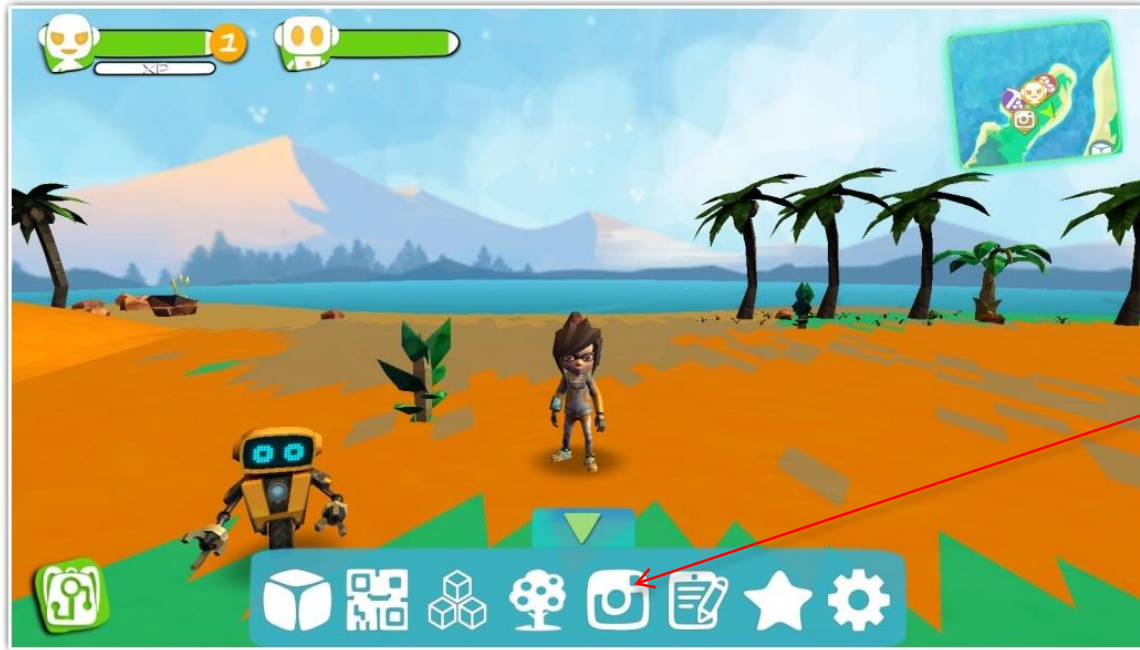
Game Guide

By clicking the Terraform icon in the Terrain Deform, players can start making terrain formations. Controls are the same as mining; sweep the target to terraform.

Camera

Introduction

The camera can be used to take pictures during the game. The pictures taken can then be used in the photo journal.



Game Guide

Click on the camera icon to launch the camera.

Camera

Taking a Picture

The camera has a simple zoom and will be enhanced soon with a first person view, selfie mode and a flash for night.



Game Guide

To take the photo, simply press the spacebar. The picture will be stored in the player's photo journal.



Enable/Disable Flash



Selfie Mode



Photo Log (gallery)

Camera

Photo Log

Photos are stored in the Photo Log. The player may add a title to photos, and attach them to mission log entries.



Game Guide

Players can change the name of each photo by clicking on the blank space below the photo thumbnail.

Crafting

Basic Crafting



The game has powerful crafting tools, which the player can use to create light, gears, food, make components for the builder and machines, and to upgrade their robot. Crafting can even be used to make more advanced crafting machines, which give players the ability to craft more complex components, foods, bots and even clone animals.

Materials for crafting come from mining, scavenging and farming.



Game Guide

Click on the three stacks of blocks to start crafting.

Crafting

Elements used for Crafting

Players must mine, scavenge and farm to find the elements below, which are in turn used in crafting to start creating more complex components, useful objects, gears, food and even clone animals.



Wood



Titanium



Rock



Metal



Water



Chicken



Horse



Tiger



Bear



Carbon



Gold



Glass



Silver



Copper



Zebra



Giraffe



Elephant



Pig



Diamond



Radium



Lead



Melon



Coconut



Apple



Egg

Crafting



Quick Crafting for basic items

The easiest form of crafting is quick crafting, where the item being crafted only requires two ingredients and is done automatically without a crafting grid.

Before they can start crafting, the player must mine, scavenge and farm for elements to use for crafting food, gears and machines.



Game Guide

Crafting Categories

Gears

Food

Lights

Machines

Crafting Machines

Clothing



Game Guide










Once the Crafting tool is activated, a top menu displays the elements available in the players inventory for crafting.

Items are sorted automatically depending on the item to be crafted.

Crafting

Quick Crafting Examples

Below are some examples of quick crafting in the game.

Elements		Product
 Metal Ore +  Quartz		 Ground Light
 Milk +  Wheat		 Bread
 Coconut +  Coconut		 Coconut Water

Crafting

Advanced Crafting

Advanced crafting requires 3 or more elements and uses a grid to craft more complex items. Patterns are also used and so not only must the player use the correct combination of elements, but they must be arranged in the correct pattern.

If the player does not get all combinations and patterns correct, then the success rate of crafting will be reduced and they may craft less useful items or byproducts.



Game Guide

Grid Crafting

Player forms a pattern on the crafting grid by dragging combinations of materials based on the recipe shown below the Item name.

The Success Meter on the right of the crafting grid shows the chance of success based on ingredients and pattern.

Player can also craft multiples using the **-/+ button**

Crafting

Gear Crafting

Player can craft all kinds of gears for the avatar, for example: compass, comms towers and gauntlet upgrades. These allow the player to do more complex quests and activities in the game and also unlock game features like teleporting, map upgrades etc.



Game Guide

In this example, the player is making a backpack to increase their inventory.

Crafting

Food Crafting

The player can craft all kinds of complex food from fruits, vegetables, fish, milk and grains. The more complex the food, the more energy it yields when eaten by the avatar.



Game Guide

In this example, the player is making a salad, and needs corn, carrots, pumpkin, and other vegetables.

Crafting

Crafting Lights

Players can also craft lights for tents, houses or base camps.



Game Guide

In this example, player is crafting a ground light using glass and oil.

You can also craft Hover Light, Halo Fire, Halo Fire Pit and a Light Pad.

Crafting

Crafting Machines

Players can also make simple machines that can be used in the builder to create more complex machines, vehicles, robots and other systems.



Game Guide

In this example, player is crafting a microwave using a battery, some lights and metal.

Crafting

Crafting Machines

Below is the list of machines that the player can craft using the Crafting menu.



Crafting

Creating Advanced Crafting Machines

Once the player has mastered quick crafting and advanced crafting, they can also craft Crafting Machines. These machines can be deployed on the field and used to craft more complex food, clothes, machines and many other more. They also provide more options than the basic crafting method.



Game Guide

The player can construct 5 advanced crafting machines

- Food Replicator
- Machine Fabricator
- Gear Printer
- Bots Constructor
- Cloning Lab
- Clothes Stitcher

Crafting

List of Machines

Listed below is the complete list of crafting machines that can be made by the player. Once deployed, players can click on the Crafting icon above it to start crafting more complex items in the game.

Food Replicator	Machine Fabricator	Gears Printing	Bots Constructor	Cloning Lab	Clothes Stitcher
					
Creates more complex foods with higher energy value/nutritional content.	Unlocks the ability to make more complex components for new machines and vehicles.	Allows the player to create more advanced gears, including gauntlet upgrades.	Player can create helper bots which they can then program using block code.	Unlocks animal crafting using amber genetic fossils, bones, carbon, and other elements from mining.	Allows players to craft many varieties of costumes, headgear and footwear.

Crafting

Deploying Crafting Machines

Since Crafting Machines are bigger, they must be deployed on the field for use. Players can deploy them by accessing the Quick Inventory and selecting Crafting Machines, then dragging its icon to spawn it in game.



Game Guide

Once on the field, Player will see a bubble with a crafting icon. Click on it to see what each Crafting Machine can craft.

Crafting

Crafting Clothes

Aside from gears, machines and food, players can also craft clothes using different materials. The list of clothes that you can craft are randomized so you can customize your character's looks.



Game Guide

The clothes that appear on the left side are randomized, so keep an eye on what you want your character to wear.

Builder and Painter Tools

Introduction

The builder is a powerful tool that unlocks the ability to build complex projects including vehicles, habitats, bridges and other projects.



Builder

Building

In build mode, there is no limit to the player's imagination. Using the building blocks and action blocks, the player can build basically anything.



Game Guide

To start, click on the builder icon.

Builder

Building Blocks

Building blocks are the foundation to building objects and vehicles. There are several types of building blocks including pyramids, triangles, and cylinders that the player can combine to make objects. Objects are built real time in scene.



Game Guide

- Spin Object
- Drag/Place Object
- Help
- Hoist/Lift
- Trash Can/Delete

Game Guide

- Building Blocks
- Machine Blocks
- Action Blocks
- Habitat Blocks
- Defend Blocks
- Paint

Builder



Building Blocks

Listed below are the building blocks that can be used during build mode.



Game Guide

Cube	Pyramid	
Cylinder	Concave	
Triangle	Pie	
Pyramid Glass	Glass	
Triangle Glass	Anchor Block	
Ladder	Cube 2	
Cube 3	Cube 4	

Cylinder 2	Cylinder 3	
Cylinder 4		

Builder

Machine Blocks

Machine blocks provide players with components for creating different kinds of vehicles including wheels, engines, controllers, and power sources like batteries and power cores. Players can use crafting to get more machine blocks if needed.



Game Guide

Don't forget to face the cockpit seat to the direction you want to navigate.

Machine Blocks

Listed below are the machine blocks that can be used during build mode.



Game Guide

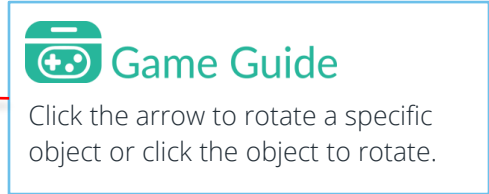
Cockpit	Bike Seat		
Steering Wheel	Bike Handle		
Joystick	Engine		
Battery	Booster		
Power Core	Wheel		
Mono Wheel	Tracks		
Ski Blade	Dual Ski		



Game Guide

Propeller	Big Propeller		
Helicopter Propeller	Airplane Turbine		
Drone Propeller	Turbo Prop		
Suspension	Spring		
Airplane Right Wing	Airplane Left Wing		
Airplane Right Wing	Airplane Left Wing		
Airplane Tail	Cockpit S		
Cockpit M	Cockpit XL		

Action blocks provide players with functional items that they can add to their project these include solar panels, mechanical knees, swivels, and other objects that will enable them to build vehicles, houses, and other projects. **Players can use crafting to get more action blocks if needed.**



Action Blocks

Listed below are the action blocks that can be used during build mode.

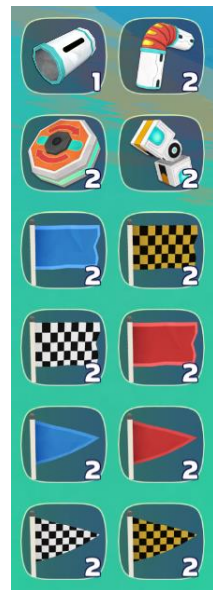
Game Guide

Anchor Block	Solar Panel
Camera	Sensor
Data Link	Controller
Satellite Dish	Button
Light	Robot Hub
Lightning Rod	Laser
Cooling Core	Pump



Game Guide

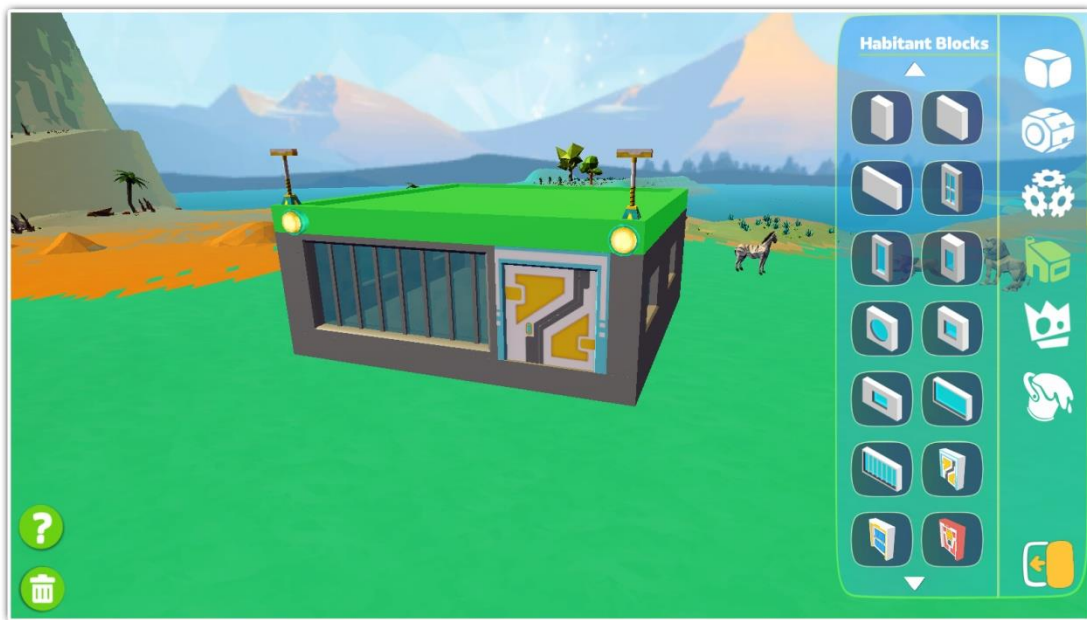
Pipe	Connector Pipe
Swivel	Mechanical Knee
Finish Flag 1	Finish Flag 2
Finish Flag 3	Finish Flag 4
Marker Flag 1	Marker Flag 2
Marker Flag 3	Marker Flag 4



Builder

Habitat Blocks

These blocks allow the players to build habitats.



Game Guide

Habitats blocks include foundations, walls, windows, doors, and roofs.

Habitat Blocks

Listed below are the habitat blocks that can be used during build mode.



Game Guide

Platform	Flat Roof
Roof	Inclined
Wall 2x4	Wall 4x4
Wall 8x4	Cross Window 2x4
Full Window 2x4	Small Window 2x4
Round Window 4x4	Square Window 4x4
Rectangle Window 6x4	Full Rectangle Window 8x4



Game Guide

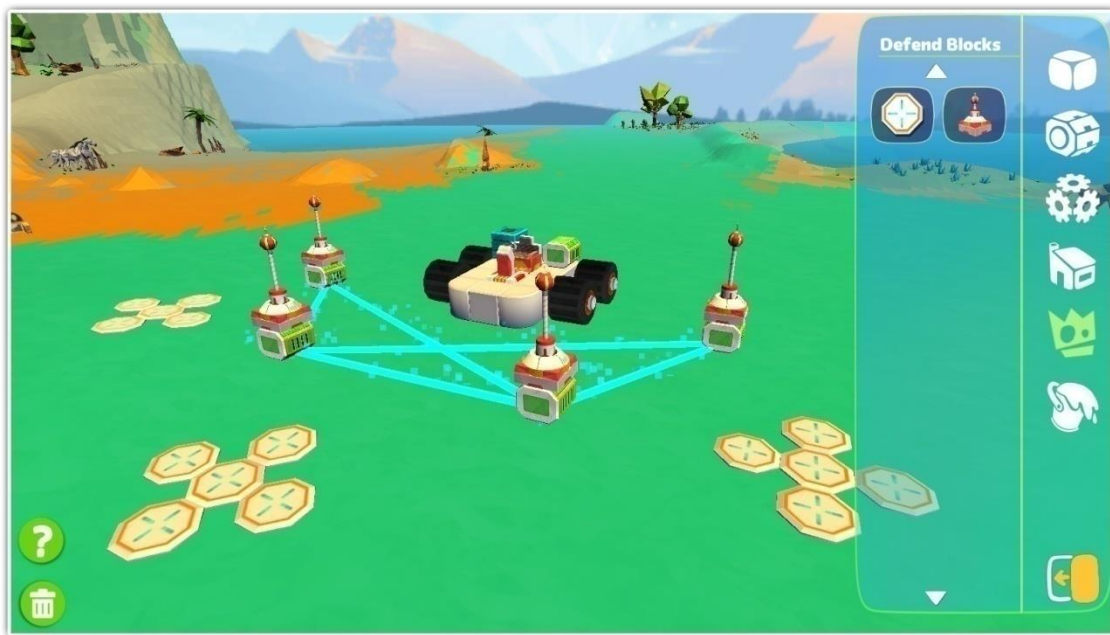
Grill Window 8x4	Yellow Door
Blue Door	Red Door



Builder

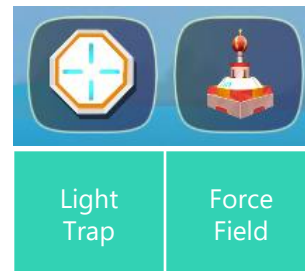
Defend Blocks

These blocks allow the players to build defensive systems to keep alien intruders away by using light energy. They can lay traps and force fields in advance to avoid having their builder parts stolen.



Game Guide

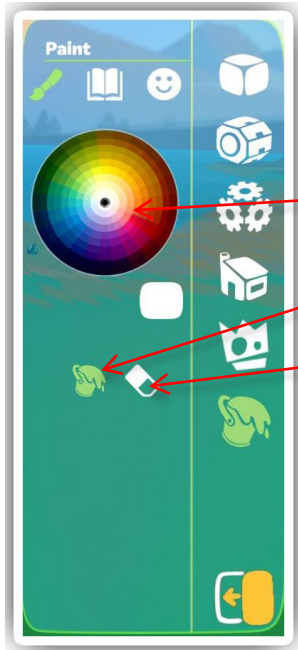
Force fields can be connected to form a barrier that keeps alien intruders away. Be sure to connect active batteries to keep them powered up.



Painter Tools

Paint

Once done building, the player may customize using paint and choosing from the different colors in the color wheel. The player can choose from the paintbrush or the bucket of paint. There is also an eraser tool.



Game Guide

Color Wheel

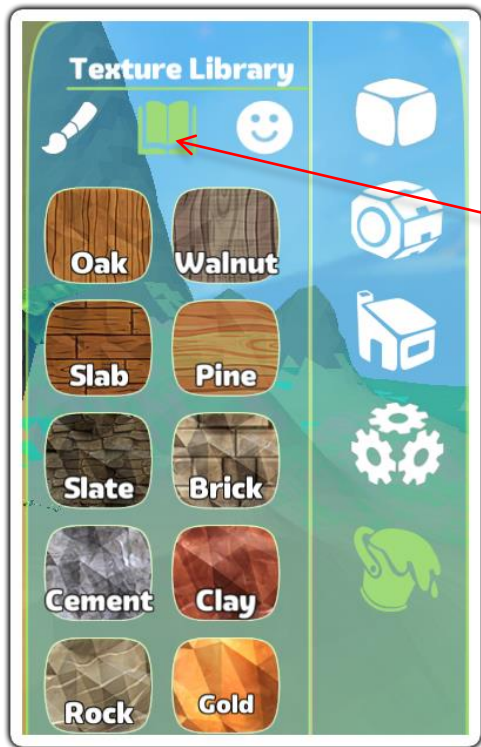
Fill/Paint Bucket

Eraser

Painter Tools

Texture Library

Aside from using paint, the player can also change the texture of their creation. Choose from different textures like oak, brick, silver, and metal bronze.



Game Guide

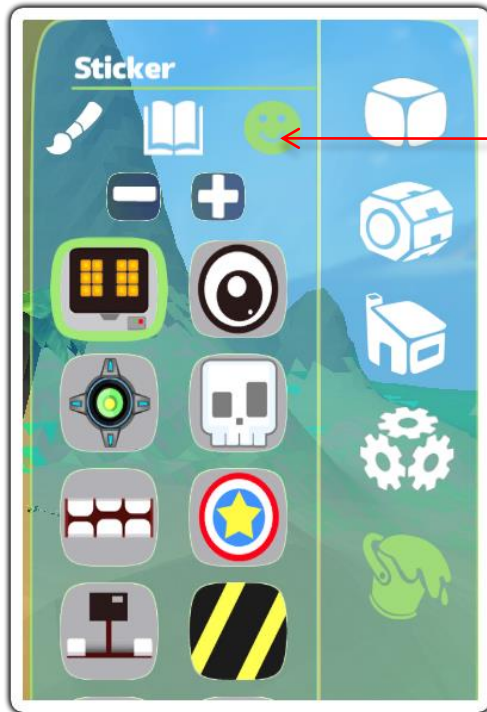
Click on the book icon to launch Texture Library. Click and drag texture onto object to apply.

Applying different textures will give blocks different properties. For example, applying cement will make a block heavy while applying pine will make a block lighter and float in water. Also, applying a camouflage texture will make the block invisible to aliens at night.

Painter Tools

Sticker

Aside from colors and textures, the player can also add stickers to creations.



Game Guide

Click on the smiling face icon to launch the Stickers. Click and drag sticker onto object to apply.

Energy Dynamics

Builder Power Sources

When building a vehicle or machine, a power source is needed. There are two types of power sources, a power core and battery.



Game Guide

Batteries and Power Cores are both used to power up your vehicles and drones. The power core has more energy than the battery.

Energy Dynamics



Using Batteries & Power Cores

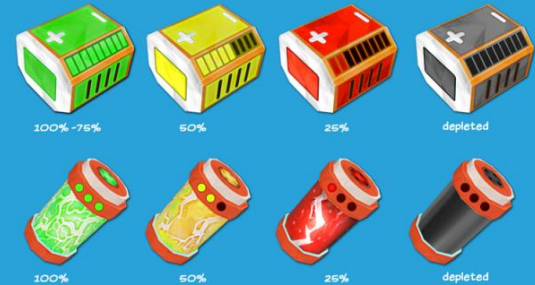
Over time energy will be depleted from the power core or battery.
These can be recharged using solar panels.



Game Guide

To charge the battery or power core, simply choose a block and attach solar panels to it. The solar panels will absorb the sun's rays to generate electricity, replenishing energy.

Power core and battery status



Simulated Physics

When building, real world physics is applied. The player needs to consider properties like mass, power, gravity and buoyancy. For example, if the player builds something with a wooden texture like oak, it will float in water. On the other hand, if the texture chosen was metal or concrete it will sink.



Game Guide

Buoyancy is applicable in the game. Here a raft made of wooden blocks floats in water.

Physics



Simulated Physics

When building machines like vehicles and helicopters, simple physics is applied in game. Payer must consider mass, gravity, friction and other forces acting on vehicles, and other concepts.



Game Guide

Simple physics of thrust, mass, and force is applied when operating machines like a car or helicopter.

Farming

Introduction



Planeteers includes farming as a game activity. Farming is essential to the player's survival as it provides a means to grow various basic foods to sustain the avatar. It is also a means to generate basic foods for complex crafting.

Players can farm a variety of animals and plants for milk, eggs, fruits, vegetables and grains like rice and corn.

Players can start farming as soon as they find seeds or clone farm animals. Seeds are a good start, and are collected during mining and scavenging.

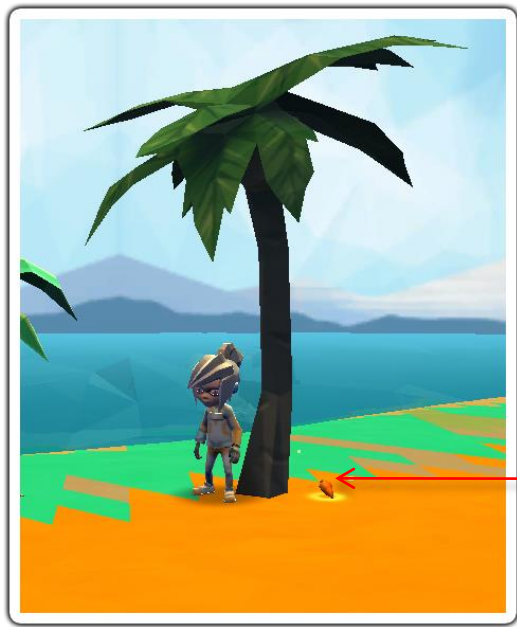


Scavenging

Scavenging Items

During game play, the user needs a variety of items to make food.

Some basic food items and seeds can be easily collected through scavenging.



Game Guide

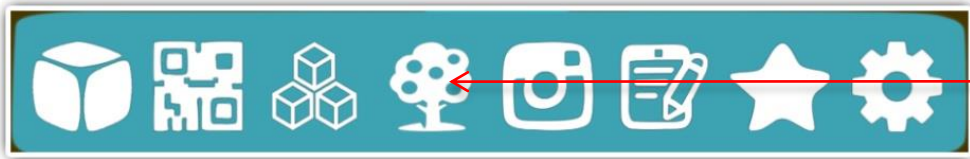
Items that can be scavenged are those glowing found beside trees. Simply click item.

Farming

Farming Plants

The game is designed to farm plants for harvest and consumption by the player. This is achieved by a number of simple steps which will later on be added to the player's backpack and inventory.

Growing plants is a great start to learning about farming, and to provide the avatar with food to sustain them. Plants require sun, water and nutrients to progress through their growth cycles to fruiting stage. When harvested, the food from farming is added to the player's inventory, where it can be eaten, fed to animals, or used to make more complex foods via crafting.



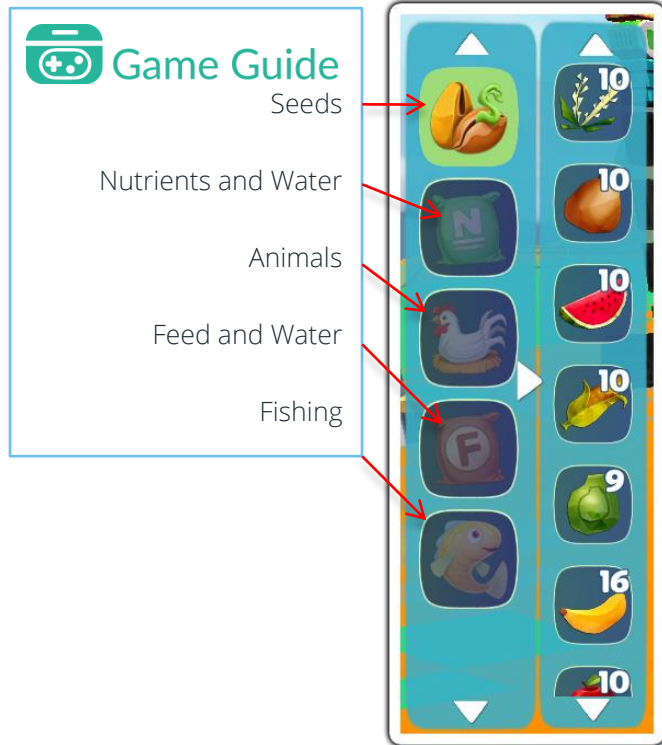
Game Guide

Open the Tools Menu bottom of screen
Click the **tree icon** to start farming.

Farming

Farming Plants

Once farming is started, a side menu displays left screen.
From there the player can access important farming tools for plants and animals.



Farming

Planting Seeds

To initiate farming, plant seeds by dragging them from the menu onto the land. Once the seeds are planted, they need to be watered and given nutrients. After the first stage, they will slowly grow on their own. Repeatedly giving water and nutrients will help them grow faster.

Dropping water or nutrient to the ground will affect all the seeds that are in close proximity. This way, player can tend to more seeds faster.



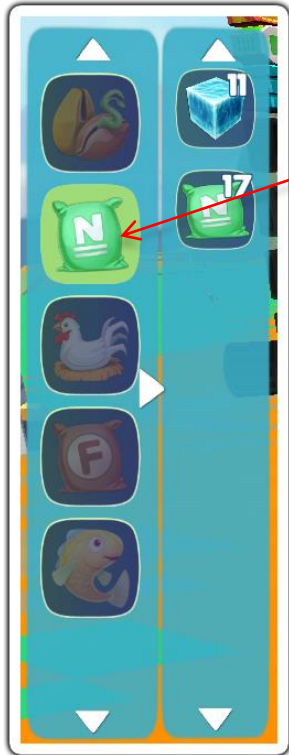
Game Guide

Player needs to wait between growth cycles. In all, there are 4-6 cycles before harvesting phase. After harvesting 3-6 times, the crop will then wither, ready to be recycled.

Farming

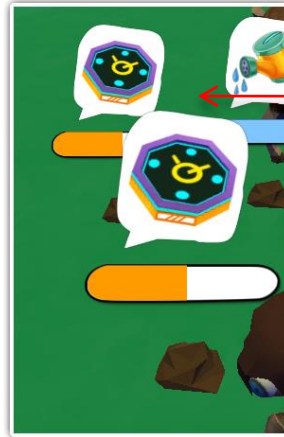
Planting Process

The player must go through cycles of giving the plant water and nutrients until it yields a fruit or vegetable.



Game Guide

Select the nutrients icon and drag the needed material to farm.



Game Guide

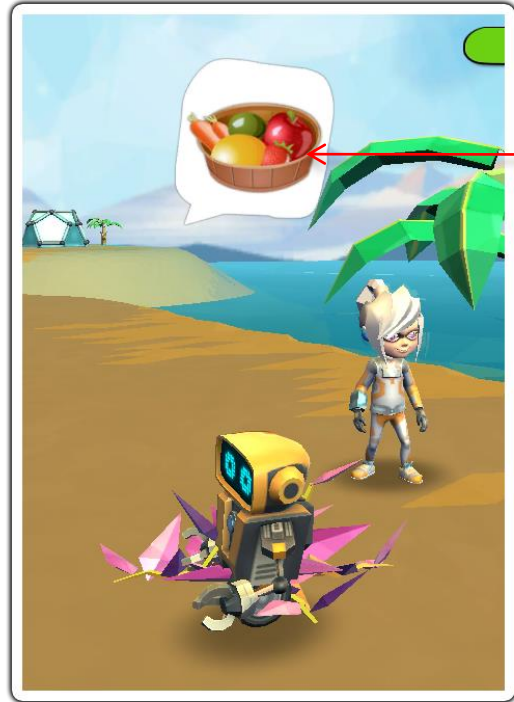
These plant has received enough water for this cycle. You can wait for it to slowly grow on its own and then give it more water and nutrients later.

Also note that each plant can be repeatedly harvested for a few amount of times. For example, apples can be harvested 5 times from one tree.

Farming

Harvesting Plants

Once the cycle is completed, the plant is now ready for harvest.



Game Guide

Click on the plant to harvest when this icon is visible. Produce is automatically added to player's inventory and the plant will move to its next harvest cycle.

Produce from harvest may be eaten, fed to animals, or used in crafting to make more complex foods. More complex foods yield more energy when consumed.

Farming

Plant Life Cycle and Recycling

After multiple harvests, plants will stop yielding fruits or vegetables.
This is now the time for recycling.



Game Guide

Once the maximum number of harvesting a plant is reached, the recycle icon is displayed on top. The plant can be recycled for wood, nutrient, and seeds.

FARMING

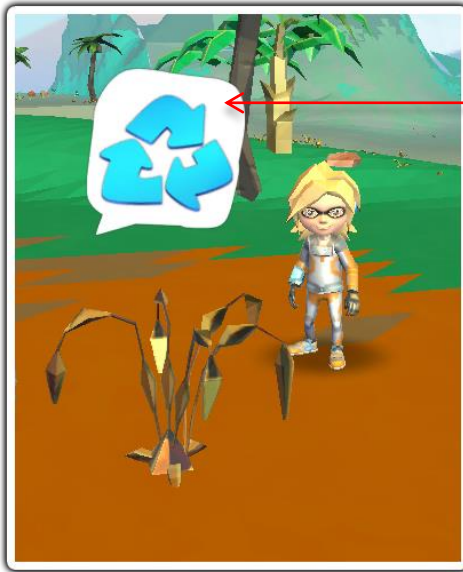
This plant doesn't yield fruit or vegetables anymore!
Recycle and start over...

RECYCLE

Farming

Environmental Hazards to Plants

At random times, you may experience weather changes. Strong rains, sudden hail storms can drown your plant, causing it to wither. Watering your plant excessively can also cause it to wither earlier. When your plants wither, it can be recycled.



Game Guide

This plant has been watered too much. Remember that plants only need to receive a certain amount of water to grow to its next cycle.

Aside from this, heavy rainfall, hail storms and other weather changes have a chance of withering your plants.



Game Guide

Plants can only grow on the right places. If you look at the sample, a seed was planted in snow. Since there's no chance for the plant to survive in frigid environments, it won't grow no matter how much water or nutrient you add to it.

Farming

Farming Animals

Farming Animals is another way to provide the avatar with food to sustain them. Animals require water and feeds to progress through their growth cycles to produce food. When harvested, the food from farming is added to the player's inventory, where it can be eaten or used to make more complex foods via crafting.



Game Guide

Feed Icon

Access water and feed

Farming

Farming Animals

Similar to caring for plants, animals require both feeds and water which can be accessed through the feeds icon. Remember, feeding the animals is important. They will die if not taken care of for a number of days.



Game Guide

This icon will appear if the animal needs food. Simply keep giving the animal water and food until it grows big enough for produce to be harvested.

Farming

Collecting Produce

Once the cycle is completed, the produce is now ready to be collected.



Game Guide

An icon of the produce is displayed on top. Simply click on it to be automatically included in the player's backpack.

The cycle of farming animals repeats providing the player continues to feed the animal.

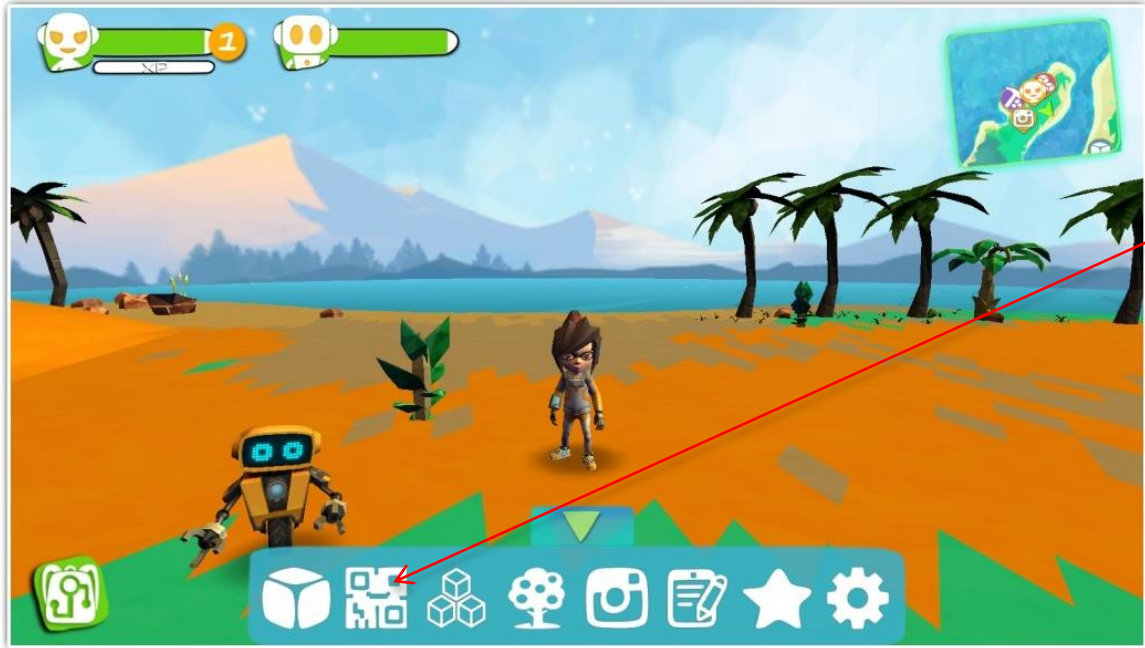
Players can access food in the backpack for sustenance or crafting.

Blockly Code



Introduction to Coding

Planeteers teaches players how to code using Blockly. Players can code robot AI, make mini games, repair broken machines, and complete other coding challenges.



Game Guide

To start, click on the Code icon. Make sure an object is selected to start coding. Players can use builder blocks or bots in coding.

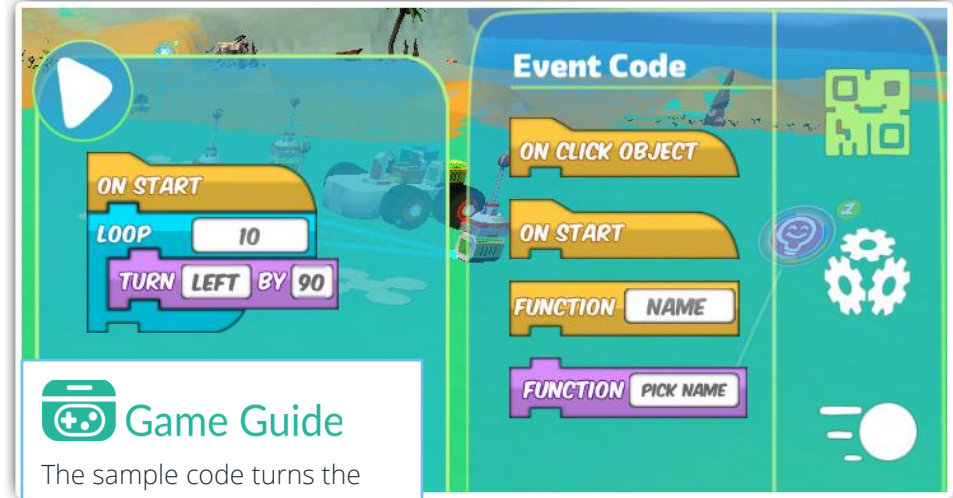
Blockly Code



Event Code

There are four code blocks in Event Code; On Start, On Click Object, Function [Name] and Function [Pick Name]. To test the code, press the play icon.

Code	Function
On Click Object	Run code only when object is clicked
On Start	Run code when you close Blockly
Function [Name]	Groups a set of codes and can be called multiple times
Function [Pick Name]	Call a function and run the codes inside it



Blockly Code



Logic Code

There are four condition blocks in Logic Code and many more condition checkers with different functions. Here are samples of the codes.

Code	Function
Else	Runs code only if the condition is not met
If [condition]	Runs code only when the condition is met
Loop	Loop events
If Press [Key]	Repeats code to the set number of times
Is [motion]	Checks motion and environment condition
Is [weather]	Checks the weather condition
Power []	Checks the battery condition
Detect [] by []	Checks if selected object is within selected distance
Is Music []	Checks if music is playing
Height []	Checks the object's height
Plant []	Checks if plants need water or nutrient
Animal []	Checks if animals need water or food

The screenshot shows the Blockly Logic Code editor with a sample code sequence on the left and a list of available blocks on the right. The sample code sequence is:

- ON CLICK OBJECT
- IF IS HIDDEN
- VISIBILITY SHOW
- COLOR [Red]
- ELSE
- COLOR [Blue]

The right panel, titled "Logic Code", lists various blocks with their current settings:

- ELSE
- IF condition
- LOOP 2
- IF PRESS LEFT ARROW
- IS MOVING
- IS DAY
- POWER LOW
- DETECT PLAYER BY 2
- IS MUSIC DISABLE
- HEIGHT 2

A "Game Guide" pop-up is visible at the bottom left of the screenshot, containing the following text:

Game Guide

The sample code shows the hidden object and turn it red and if the object is shown, it turns blue.

Blockly Code



Motion Code

There are many options for movement using Motion Codes. Here are the block codes to be used when coding.

Code	Function
Follow []	Follow selected character
Stop Follow	Stops the Follow motion code
Turn [] by []	Turn to the selected direction and angle
Face []	Face the selected cardinal direction
Random Direction	Face a random direction
Gravity []	Enable or disable gravity on object
Hover []	Hovers object to the set height
Move []	Move to selected direction and distance
Remote Control	Enable remote control

Motion Code

ON CLICK OBJECT

TURN RIGHT BY 90

FOLLOW PLAYER

FOLLOW PLAYER

STOP FOLLOW

TURN LEFT BY 10

FACE NORTH

RANDOM DIRECTION

GRAVITY ENABLE

HOVER 2

MOVE FORWARD BY 1

Game Guide

The sample code allows the object to turn right by 90 degrees and follow the player when it is clicked.

Blockly Code



Action Code

There are also options to tweak the actions or add non-motion commands to your codes by using Action Codes.

Code	Function
Visibility []	Hides or shows the object
Toggle Cam Focus	Focuses view on selected object
Say [textbox]	Says message inside textbox
Cam Focus []	Turn camera focus on or off
Mount Camera	Enables object's photo camera
Scale []	Changes the objects size
Wait By []	Runs next code after selected number of seconds
Do [farm commands]	Give plants or animals water, food or nutrient
Set Leader	Set as the leader or alpha
Do [animal commands]	Make animal do the selected action

The screenshot shows the Blockly code editor interface. On the left, a sample code block is visible with the following actions: **ON START**, **SCALE** (set to 3), and **SAY** (with the text "HELLO!"). On the right, the **Action Code** panel is open, displaying a list of available actions: **VISIBILITY** (SHOW), **TOGGLE CAM FOCUS**, **SAY** (with an empty text box), **CAM FOCUS** (TRUE), **MOUNT CAMERA**, **SCALE** (0.5), and **WAIT BY** (0.5 SEC). A **Game Guide** pop-up is also present, explaining that the sample code scales the object three times and allows it to say "Hello!".

Action Code

- VISIBILITY SHOW
- TOGGLE CAM FOCUS
- SAY
- CAM FOCUS TRUE
- MOUNT CAMERA
- SCALE 0.5
- WAIT BY 0.5 SEC

Game Guide

The sample code scales the object three times and allows it to say "Hello!"

Blockly Code



Sound Code

Sound codes add a wide range of different sounds to your code. Here are some of them and their purposes.

Code	Function
Music []	Plays selected musical style
Play Note []	Play the selected note
Play []	Play the selected sound
Stop Sound	Stops all playing sounds
Vol [1-100%]	Adjusts volume of playing music
Instrument []	Play the selected musical instrument

The screenshot shows the Planeteers game interface. On the left, a 'Sound Code' block is visible with the following settings: 'ON CLICK OBJECT', 'VOL' set to 85%, and 'INSTRUMENT' set to PIANO. On the right, a 'Sound Code' panel displays various sound options: MUSIC (BLUES), PLAY NOTE (01), PLAY (BEEP), STOP SOUND, VOL (53%), and INSTRUMENT (PIANO). A QR code is also present in the top right corner. A 'Game Guide' overlay is shown at the bottom left, featuring a game controller icon and the text: 'The sample code plays the piano sound at 85% when the object is clicked.'

Blockly Code



Visual Code

Changing appearances can be done by using Visual Codes. It has color, texture and even light color changes.

Code	Function
Random Color	Changes to a random color
Light [palette]	Changes the color of lights
Color [palette]	Changes to the selected color
Solar [On, Off]	Turns solar panels on or off
Door [On, Off]	Keeps door open or close
Light [On, Off]	Turns lights on or off
Texture []	Changes texture of object

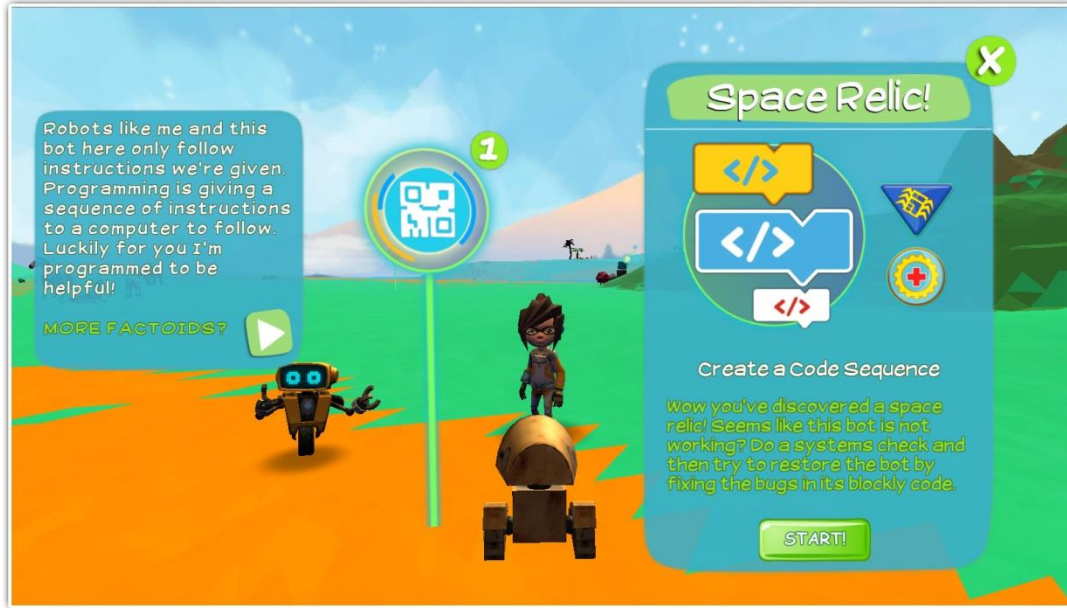


Blockly Code



Coding in Quests – Space Relic!

This is an example quest where the player needs to add a code to make the bot follow them during exploration.



Game Guide

Use Motion Codes to add movement and controls to bots.

Blockly Code



Space Relic! Quest

Following the instructions given, the players must use the provided block codes to complete the quest and bring the bot back to life.



Game Guide

The Quest Progress Meter is shown on the top left. The On Start and Follow [Player] command is added to the code to make the bot follow the player during exploration.

Blockly Code

Space Relic! Quest Completed

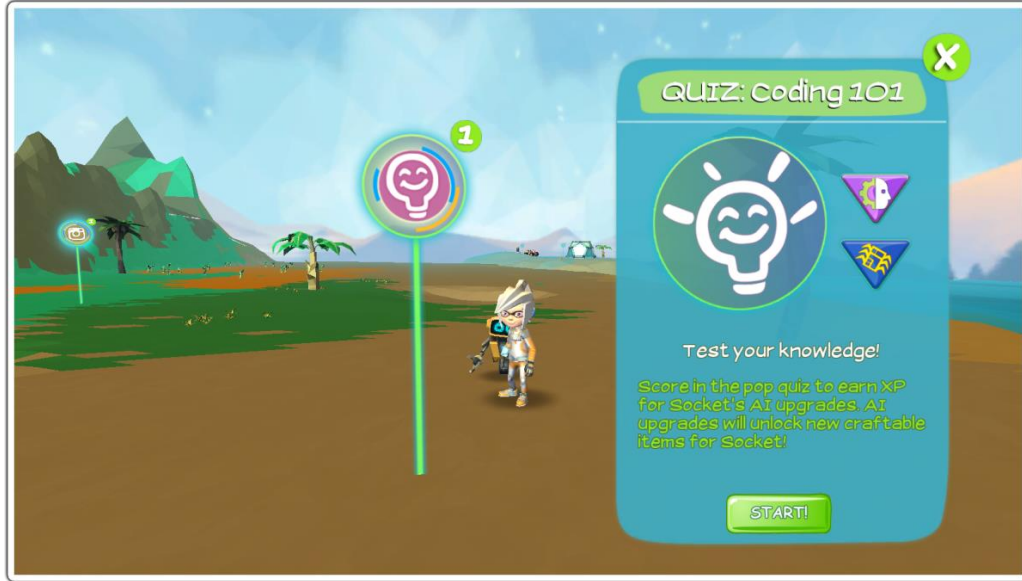
The player receives rewards and badges once the quest has been completed.



Quizzes

Introduction

Quizzes are unlocked after the player completes a series of related quests. The quizzes use different types of formative assessment including multiple choice, true or false, picture and question formats.



Game Guide

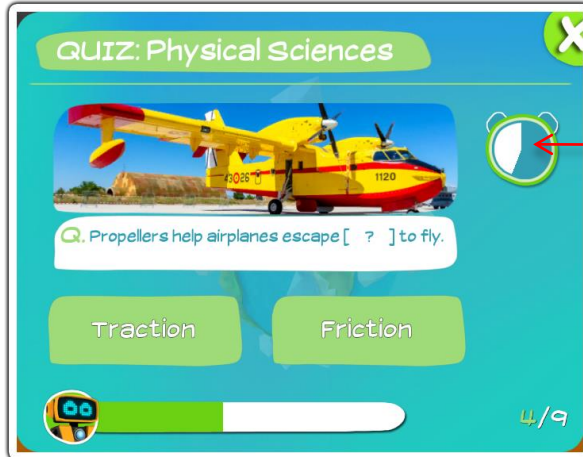
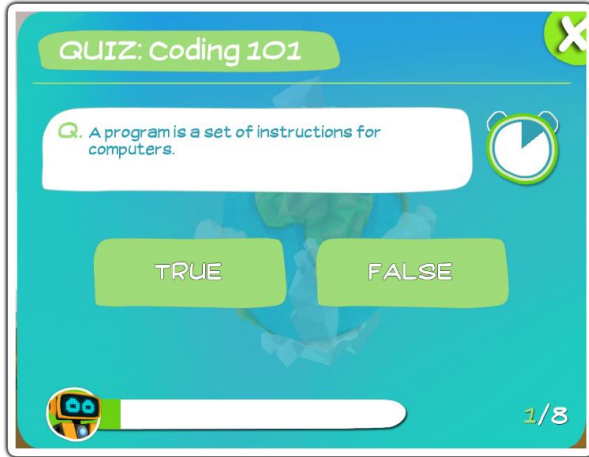
Player earns XP towards relevant badges by completing quizzes.

Quizzes

Sample Quizzes

Different quiz formats are used to measure player's experience.

Quiz questions are derived from the quests and related fun facts completed by the player. Examples below show multiple choice and true false quiz formats.



Game Guide

Players have 12 seconds to answer each question.

Quizzes

Results

After each quiz is completed, results are displayed on a summary screen that shows the number of correct answers and corresponding percentage.



Game Guide

Results

The player sees a summary of the correct and wrong answers. They can also review the question that they got wrong.

Quizzes

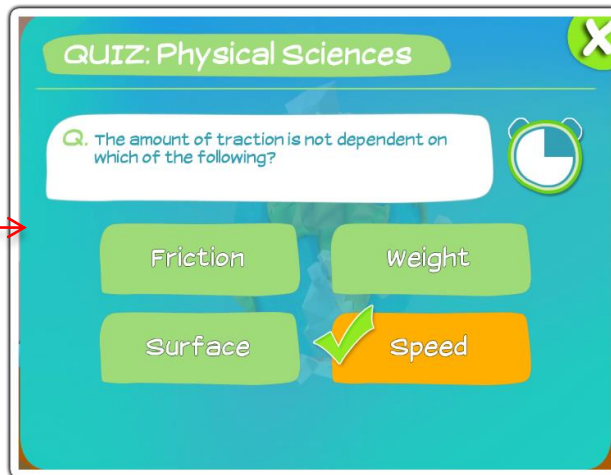
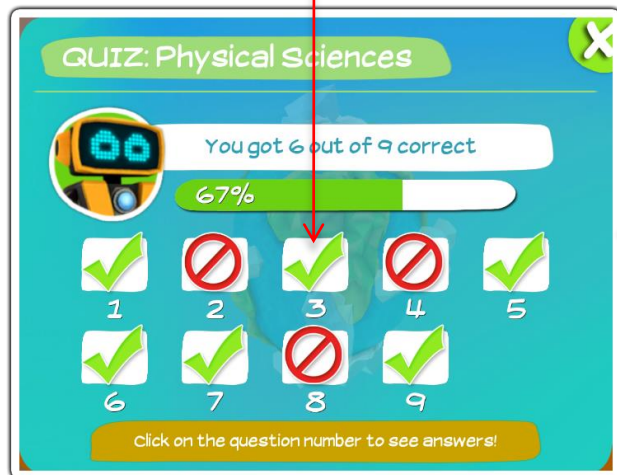
Checking Answers

The results screen allows players to check incorrect answers against the correct answer. This is especially helpful for players to identify their mistakes and learn from them. They can also then reiterate important information and review again to master concepts.



Game Guide

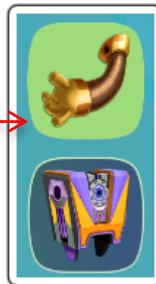
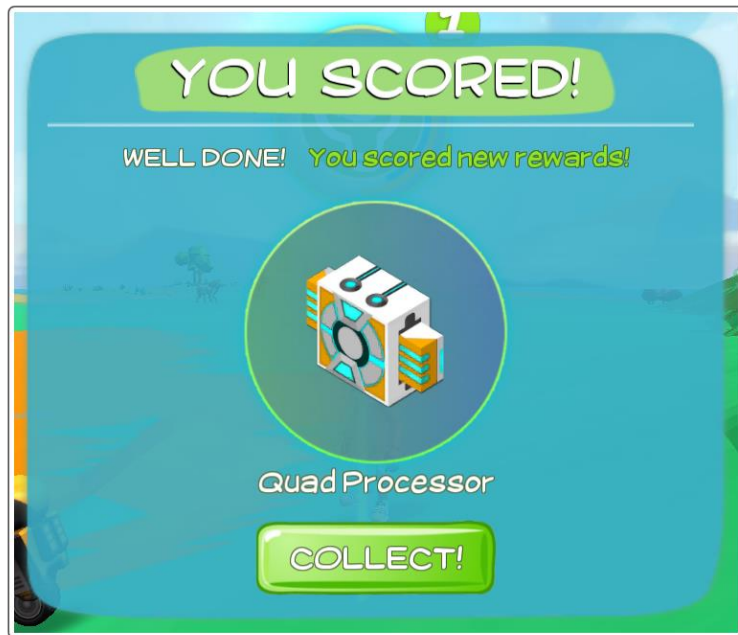
Click the question number to view the correct answers



Quizzes

Special Quiz Rewards

Finishing a number of quests will unlock unique Chipset Upgrades. These chipsets will enable players to craft upgraded parts for Socket using the Bots Constructor, an Advanced Crafting Machine. We'll discuss more of that later.



Game Guide

As bonus for finishing quizzes, players will get a variety of Chipset Upgrades that will unlock new parts for Socket.

Achievements

Introduction

The Achievements screen allows access to the players quests, badges, and photo journal. It provides a summary of progress including currently active quests and badges versus completed.



Game Guide

Click on the star to open player Achievements



Achievements

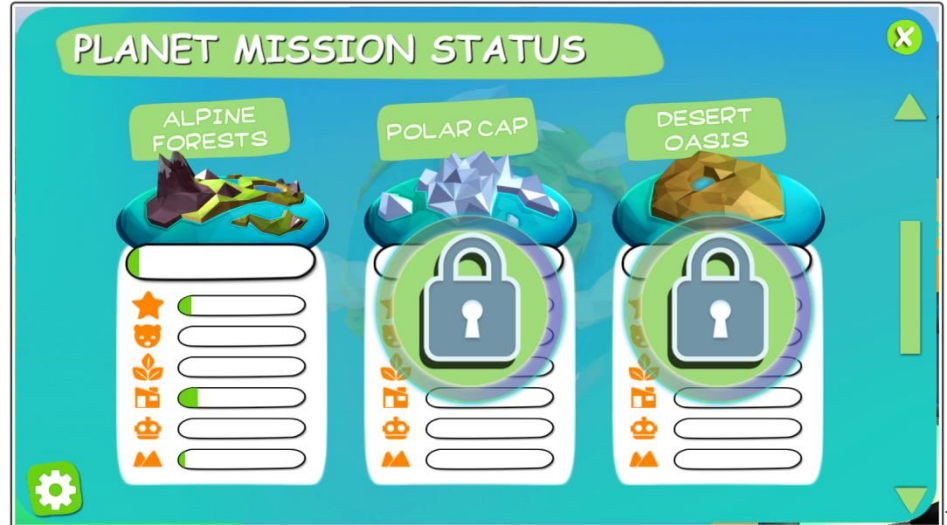
Planet Mission Status

The Planet Mission Status provides players an accurate percentage of in-game progress. Doing different activities in-game, such as farming or crafting, will slowly fill up each corresponding meter. Once players reach a total of 30% in a continent, the next continent will be unlocked.



Game Guide

This represents the player's progress for the entire planet.



Achievements



Quest Tracker

The Quest Tracker provides information about quests available, in progress and completed. This includes a description of quests and the badges earned by completing quests. The player may also warp directly to the quest.



Game Guide

The Quest Tracker lists all available quests with a short description and progress.

Player can warp to quest location instead of using map/walking.

Achievements



Badges and Planeteers Badges

Displays the badges in progress and completed based on available quests in Science, Technology, Engineering, Art, and Math pillars. At the lower part, you can also find the Planeteers Badges earned during your adventure.



Game Guide

A meter shows the current completion status of a badge based on points earned over related quests.

Achievements

Mission Computer

The Mission Computer is a multi-purpose feature under Achievements. Players can view and document the data gathered during their exploration by using the four tools inside this computer.



Game Guide

The Mission Computer is an all-in-one tool that helps players keep track of their activities in-game.

Achievements



Photo Log

Players may use the camera to take pictures during the game. These are stored in the Photo Log. Learners can annotate pictures with a short title, and can also launch a journal entry to write a report or essay about a game experience and related photos.



Game Guide

Players can change the name of each photo by clicking on the blank space below the photo thumbnail.

Achievements



Mission Data

This Mission Computer tool gives players real-time updates on in-game progress and events. It's divided in four sections containing comprehensive graphs.



Game Guide

This section shows the frequency of different weather that the player has experienced like rainfall, snow, etc.

This gives a comprehensive graph for farm crops harvested. It also shows the eggs and milk produced from farm animals.

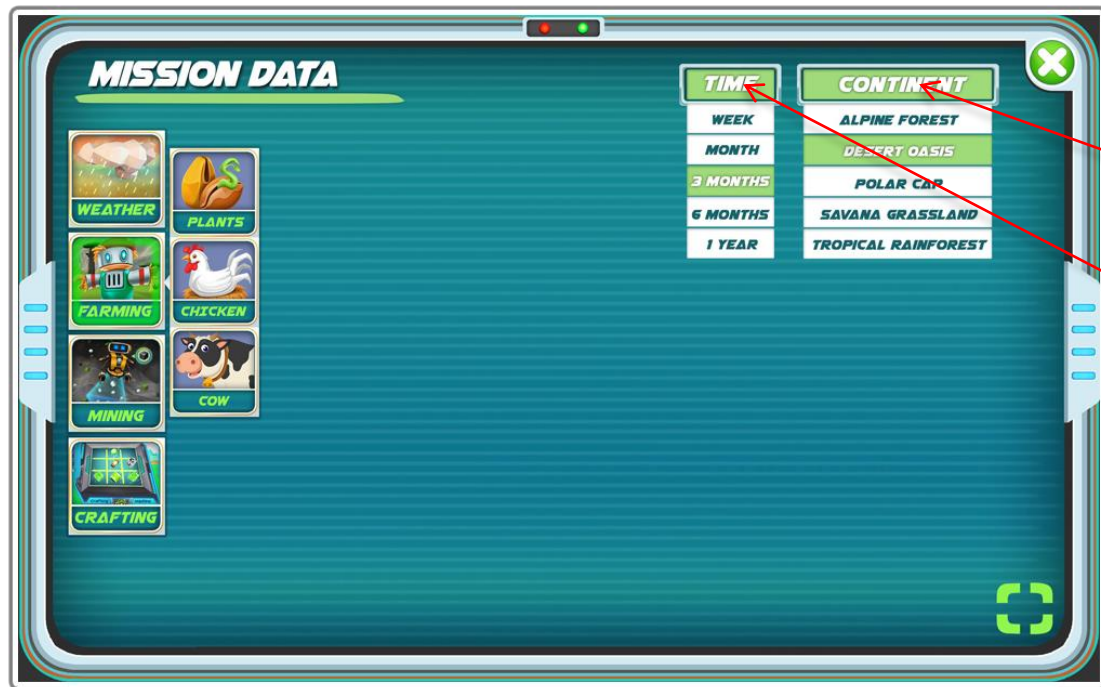
This shows the number of different elements and minerals that the players have mined.

This provides a percentage chart that will show which item category you are crafting often.

Achievements

Mission Data - Selecting Time and Continent

To create graphs, players can adjust the time range and the continent if they want to view specific data.



Game Guide

This drop-down menu lets the players see data from a specific continent.

The Time refers to the in-game time cycle. This drop down will sort the data shown based on the selected time range.

Achievements

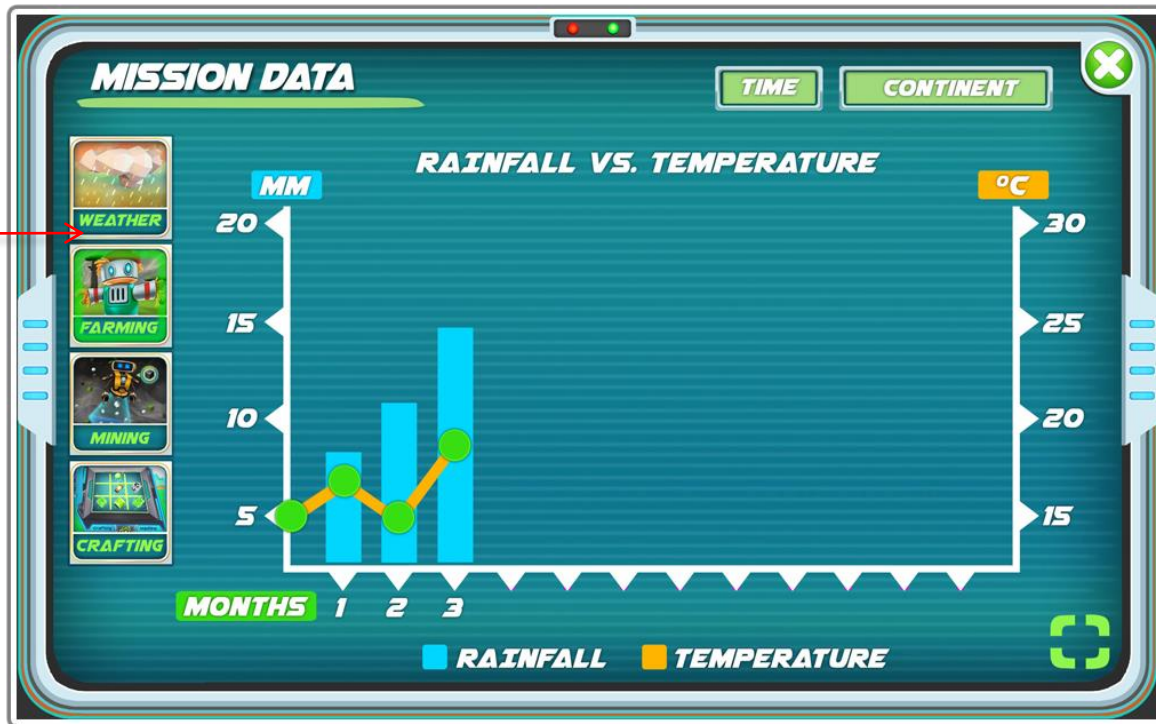
Mission Data - Weather

The Weather chart shows data for weather changes that the players will experience while playing. They can also use it to check the different temperatures of each continent.



Game Guide

Click on the Weather icon to see the data recorded.



Achievements

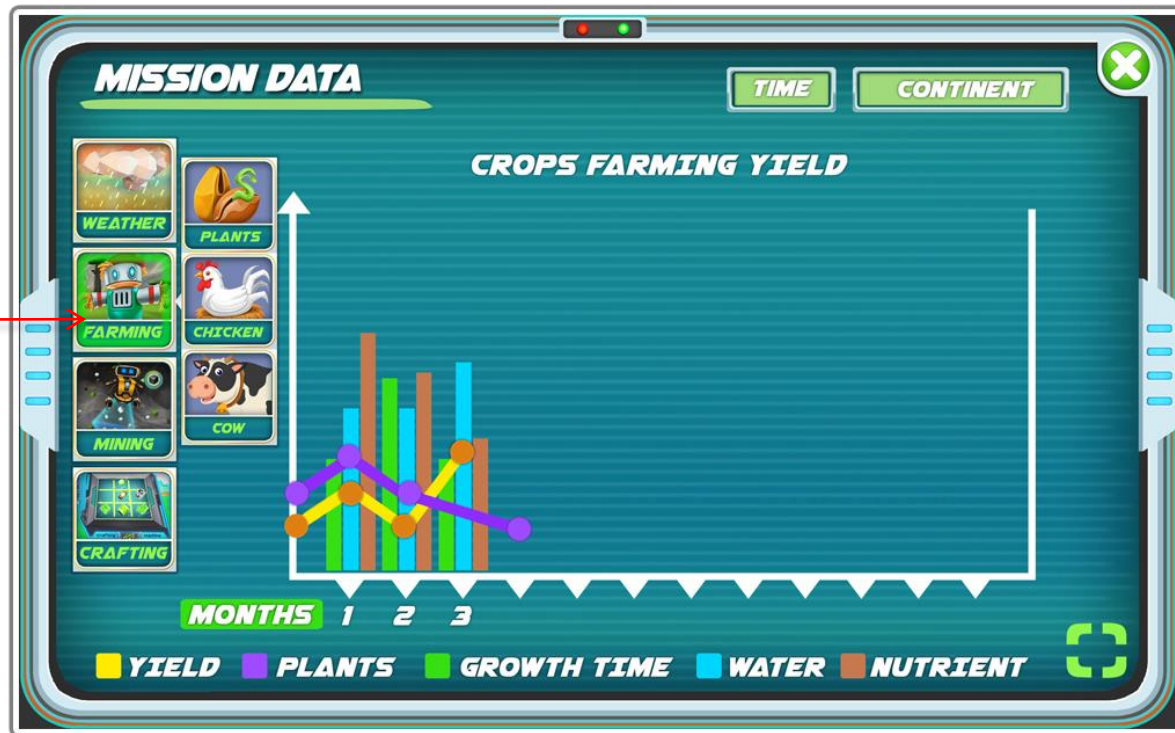
Mission Data - Farming

The Farming data helps players keep track of the amount of crops from plants and produce from farm animals. They can also use this for managing farming resources.



Game Guide

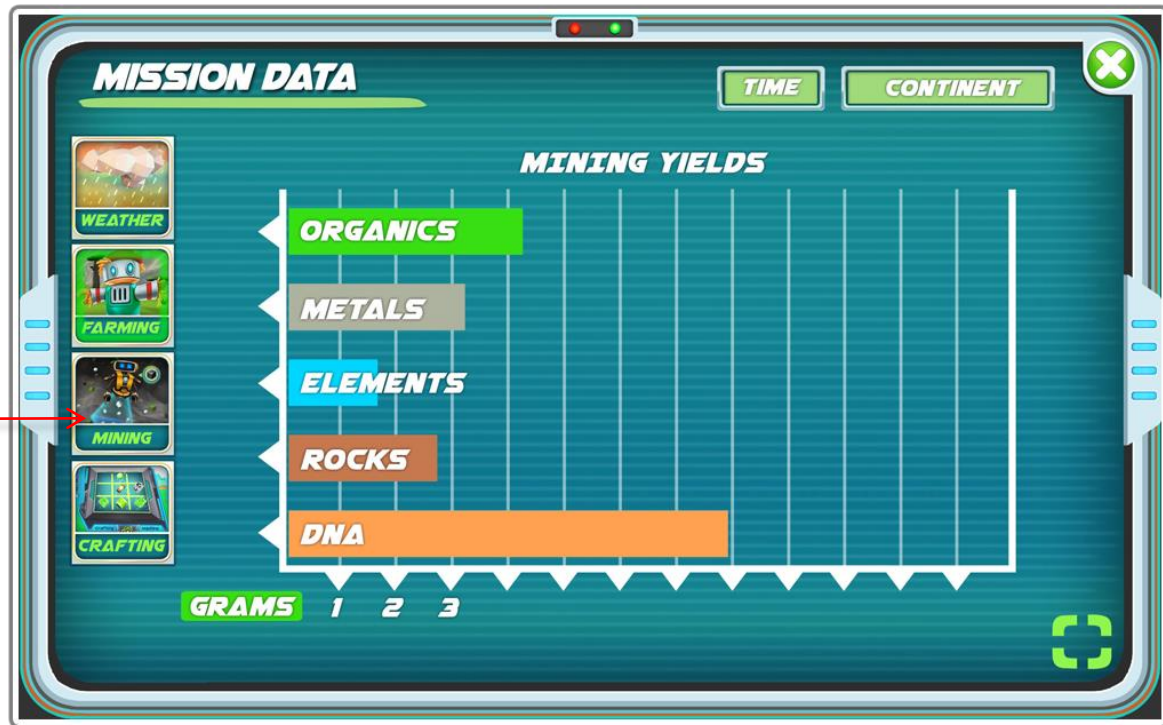
Open the Farming data by selecting this icon. You can also sort out if you'd like to see data related to your plants, chickens or cows.



Achievements

Mission Data - Mining

The Mining chart automatically sorts out the minerals that players have collected into five categories: Organics, Metals, Elements, Rocks and DNA. This data can be used to keep track of your mineral supplies.



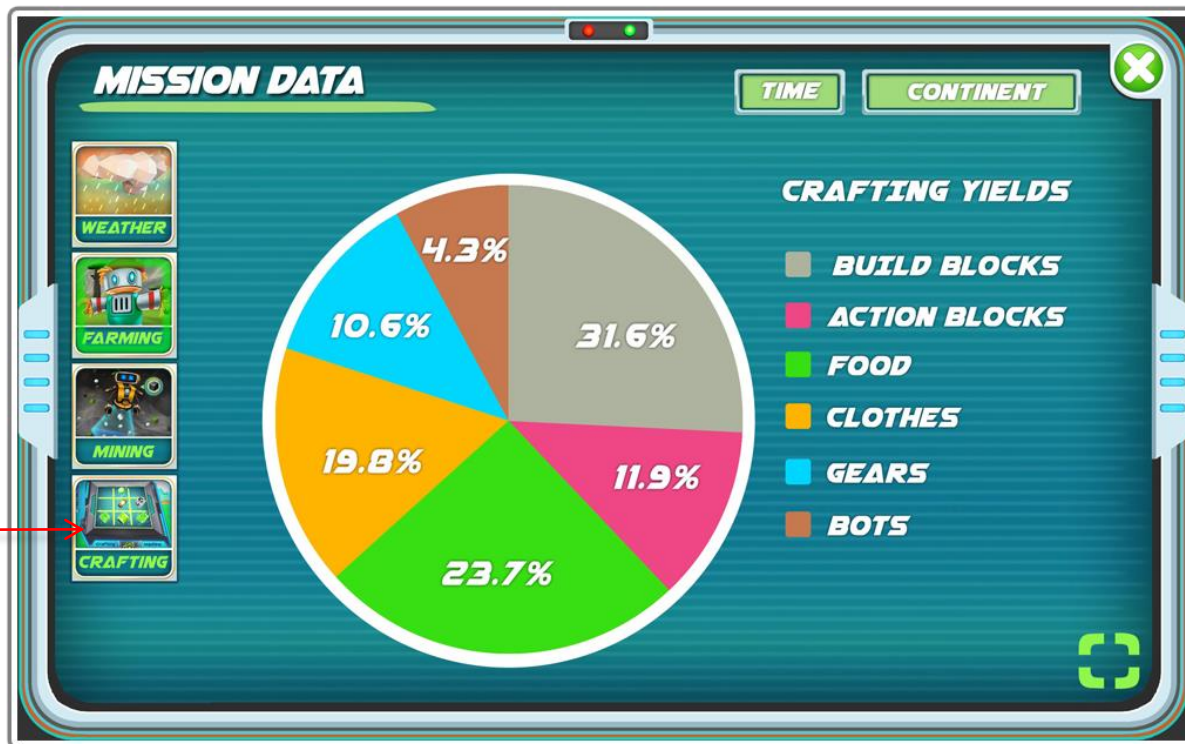
Game Guide

Click the Mining icon to see an accurate count of mineral supplies.

Achievements

Mission Data - Crafting

The Crafting chart gives players a percentage of the items they have crafted per category.



Game Guide

The Crafting chart can be accessed by clicking this icon

Achievements

Mission Log

The Mission Log will be used often to document the player's adventures and explorations. Here, they can add and save log entries with attached in-game photos. Mission Log can also be accessed from bottom tools menu or the Mission Computer screen.



Achievements

Mission Log

The following gives an overview of the Mission Log features and how to create a log.



Game Guide

Selecting the big plus icon creates a new blank mission log that players can edit later. If they click on the box below, you can change the name of your mission log entry. Player's can also drag and drop unwanted entries to the trash can to delete them.

Achievements

Mission Log - Writing the Entry

After generating a blank mission log, players can document their projects and experiences, including attaching photos. Once finished, they click 'Upload' to save the log in game and as a PDF.



Game Guide

Players can change the selection of attached photos by clicking this icon.

The cursor will appear here, allowing players to document their adventure. After editing, just select Upload and the entry will be saved.

Achievements

Mission Log - Attaching Photos

When making new entries, players can also choose photos to attach. The attachments can be changed later while editing the journal.



Game Guide

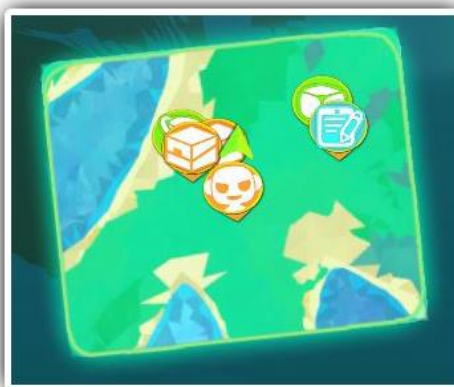
Selecting this icon brings the screen back to the journal entry.

Clicking on the checkboxes of the photos, attaches them to the entry to be made.

Supply Crates

Nighttime Supplies

If Aliens is toggled Off in the settings, Mission Control may sometimes deliver additional supplies for your adventure. You will receive a transmission from Mission Control informing you of a supply crate drop. The location of the boxes will be marked on your map.



Game Guide

Supply Crates contain various tools and machine to help you in your adventure. Check the map for crate indicators so that you can grab all the supplies.

Supply Crates



Opening Crates

When Mission Control informs you of a supply drop, keep an eye out for crates. Click on the crates to get the supplies inside.



Game Guide

Supply Crates contain random tools that can help you in your planetary exploration. Be sure to open all of them.

Planeteers



Community Feedback

Planeteers is still in development as we strive to improve the game, add new and exciting quests and update support materials. Its important to us to receive feedback for any issues or ideas to improve.

Got some Feedback?

Don't be shy, drop us an email to our school community support team, we'd love to hear from you!

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