Backlog notes to update – **New items in bold**

* 0: Pre-production
  + **Initial ideas and prototyping – sprint 1**
  + **Game design document – sprint 2**
  + Market research
  + Create a consumer profile/psychographic
  + Create a risk assessment for the project
  + Paper prototype
  + Project timeline
  + **Research how to keep players engaged – sprint 2**
* 1: As a player I want to be able to sort objects
  + Create concept art for the layout of the sorting screen
  + Implement a system in Unity that allows players to drag an item to a category
  + Implement a system in Unity that allows an object from a list to appear in the middle of the screen ready for sorting
  + Implement a system in Unity that checks whether the object has been sorted correctly or incorrectly
  + Research casual game mechanics
  + Come up with a list of objects that can be sorted for each category; 5 objects for each category for MVP
* 1: As a player I want to be able to earn rewards
  + Research reward schedules
  + Design a schedule for the rewards that the players can receive
  + Design the rewards that the player will be able to obtain (seeds)
  + **Create a pop-up for when a player earns a new reward that they haven’t obtained before**
  + **Create a pop-up for every time the player earns any type of seed so that they are aware they have things to plant**
* 1: As a player I want to be able to decorate my planet
  + Research how to create “awe and wonder”
  + Design flowers/bushes/trees etc. that correspond with the seeds the player can unlock
  + **Allow the user to tap on a fully-grown object and click a move button to re-arrange items on their planet**
  + **Implement an inventory system that will be used to display the seeds the player has – Sprint 4**
  + **Concept art for seed bag – sprint 4**
  + **Final artwork for seed bag using flat art style**
* 1: As a player I want to be able to grow different plants
  + Implement a system in Unity that allows plants to grow in real time
  + **Format the growth timer to display in days, hours, minutes and seconds – sprint 7**
  + As a UI element in Unity, create a countdown timer that displays the amount of time until an object is fully grown
  + Implement a “growth tick” that requires the player to water their plant every 6 hours in order to progress its growth
* 1: As a player I want to be able to zoom into different parts of my planet
  + Implement a system in Unity that allows players to use a pinching gesture to zoom in to their planet
  + Create an animation that will be used to show players how to zoom in to their planet
* 1: As a player I want to be able to rotate around my planet
  + Implement a system in Unity that allows players to drag left or right to rotate their planet
* 1: As a player I want to be able to spend and earn “energy”
  + Implement a system in Unity that subtracts an energy point every time an object is sorted, regardless of whether it is correct or not
  + Implement a system in Unity that allows the player to collect “stars” from fully grown objects
  + Create a spreadsheet that details how much energy can be earned from different objects
  + **Come up with a different name for energy bar and energy**
  + **Being able to earn energy points over time, so that there is still a chance to sort even if the player isn’t growing anything new etc.**
* 2: As a player I want to be able to unlock new sorting categories and their corresponding items
  + Determine sorting categories; two initial categories for MVP
  + **Determine a reward schedule for category unlocks**
* 2: As a player I want a menu system so that I can navigate the game
  + Menu flow diagram
  + Main menu mock-up
  + Main menu background art
  + Settings/options button
  + Implement main menu in Unity
  + Implement settings menu in Unity
* 2: As a player I want to be able to fill out my collection journal
  + **Concept art for journal – sprint 2**
  + **Final artwork for journal**
  + **Determine what information is displayed in journal**
  + **come up with a list of basic achievements for players to earn? (could be under new user story of I want to earn achievements) and their icons/medals that will be shown next to them**
* 2: As a player I want to have a summary of my planet in my journal so that I can compare with my friends
  + Create a ‘stats’ page in the journal/collection log (this will be displayed on the left page of journal until an object is tapped and will then be replace with object info + back button)
  + Pull data from Unity and have it display as figures for the player to view in their collection log (date started, how long spent playing)
* 2: As a player I want to see a consistent art style
  + Universal button style
  + Art style guide
* 2: As a player I want to be able to name my planet and have it visible on the game screen
  + Implement the ability to take in player input for the purpose of naming their planet
  + In Unity, create a pop-up that displays the player’s planet name at the beginning of each play session
  + **Create a banner for planet name to sit in**
* 2: As a player I want to be able to play the game on different devices regardless of resolution
  + Implement a system in Unity that deals with UI scaling
* 2: As a player I want to be able to playtest the game
  + Create an MVP (minimum viable product)
  + Create a feedback form that allows players to report bugs
* 2: As a player I want to have an elegant UI system
  + Research mobile game UI, focusing primarily on similar games in the market
* 3: As a player I want the game to be animated
  + Animate trees
* 3: As a player I want the game to have audio feedback
  + SFX – button press, new reward unlocked
  + OST – Day time
  + OST – Night time
  + Implement SFX in Unity
  + Implement OST in Unity
* 3: As a player I want the final product to be clean and polished
  + **Carry out in-house testing on appropriate devices**
  + **Iterate the game based on tutor and player feedback**
* 3: As a player I want to be able to change the season and have it affect my decorations: **OUTDATED SINCE PROJECT FORK? Should this be priority 2 now? Seasons provide optimum times for players to gather and perform certain activities?**
  + Create a mood board and colour palette for Spring
  + Create a mood board and colour palette for Summer
  + Create a mood board and colour palette for Autumn
  + Create a mood board and colour palette for Winter

**Potential New User Stories**

* 2: As a user I want to be able to tend to my planet in different ways
  + Define a list of "nurturing elements" and come up with ways of implementing them in our game – Sprint 8
    - Come up with a list of activities that is associated with tending to a garden – sprint 8
    - Come up with a list of potential “tending mechanics” based on the list of gardening activities – sprint 8
* 2: As a user I want to feel a sense of progression in the game
  + Determine the length of play
  + Determine how the sorting mechanic will change over time
  + **Digital mock ups that display parts of the game cycle (for purpose of presentation) – sprint 5**
* 2: As a player I want to be able to nurture my planet
  + Research methods of employing anthropomorphism – sprint 7
  + Create a non-digital concept for how we could anthropomorphism based on the research carried out – sprint 7
  + Digital concept
* 2: As a player I want to be relaxed while playing the game
  + Research how to create the feeling of relaxation – sprint 2
  + Create the artwork for the beach that will be featured at the centre of the player’s planet – sprint 3
* 2: As a designer I want to be able to add new sorting objects to the Unity project
  + Scriptable objects – sprint 8
* 2: As a designer I want be able to add new player rewards to the Unity project
  + Scriptable objects
* 2: As a player I want my planet to be different to other players planets
  + Come up with ways of adding variation between players
* 2: As a player I want to be taught how to play the game
  + Create an animation that will be used to show players how to drag objects to sort them into categories
  + **Implement animation that will be used to show players how to use sort system**
* Artwork for background

**TO (RE)VISIT**

* Player is currently unable to rotate their planet
* Credits (Sprint 10 – the UI panel is there, but is empty)
* Things that have been previously marked as done but there is no longer evidence of them in the game build
  + Main menu (Sprint 10 – basic menu)
  + Naming planet etc. (Sprint 10 – part of the basic menu)
* Have date and time + version number on each build so that we know when builds were created (Sprint 10 – we are using Calendar Versioning (CalVer) to keep track of our current game version)

**Programming Stories/Tasks (2018-12-09)**

* 2 | As a player I want to be able to save my game progress:
  + – Before implementing saving/loading to the game, decide on how the data should be saved (JSON, XML, PlayerPrefs, Binary, etc.)
  + 1) Fundamentals of the saving system, that will save data across game sessions – currently in the game we use PlayerPrefs to save basic data (such as planet name). We can create our own binary files to save data or use json files. The programmer will need to research the best approach for this and decide on the best approach. As a start, the system should save the planet name, and when the planet was created.

* + 2) Keeping track of the Energy – the newly saving system should be able to save the current amount of energy that the player has.
  + 3) Keeping track of last session time – this will be the time when players have quit the game, this will allow the TimeController script to calculate how much time has passed between play sessions.
  + 4) Keeping track of planet progress – the system should keep track of the objects that have been placed on the planet. A good approach to this might be to create a map that keeps track of each of the objects. After that the scriptable objects can be imported, to load the data and it can be overwritten by the saved data.
  + 5) Save Journal’s progress – the save system should save the items that have been unlocked by the player in the Journal.
  + 6) Keeping track of the anthropomorphic tree – when the ability to customise the tree is added to the game, saving system should also keep track of the choices that players have made.
  + 0) --- Add any new features that need to be saved above ---
* 2 | As a player I want to be able to load my game progress:
  + 1) Fundamentals for the loading system – once the fundamentals for the saving have been created; I can start working on loading the data back into the game. The fundamentals should be able to load the planet name, and the date of when the planet was created.
  + 2) Loading the Energy
  + 3) Loading the session times
  + 4) Loading the planet progress
  + 5) Loading the journal progress
  + 6) Loading the tree choices
  + 0) --- Add any new features that need to be loaded above ---
* 2 | As a player I want the game to keep track of time passed between play sessions:
  + 1) The game should be able to save and load the time when game was last played – this will allow the system to calculate how much time has passed between the play sessions. This way, other systems can calculate if any rewards/items should be given to player. Main system that will use this is the Energy system, to reward player free energy points.
  + 2) The game should calculate how much time has passed – the system should be able to calculate how much time has passed between the play sessions, using the data from the saving/loading system.
* 2 | As a player I want to customise my “elder tree” (don’t remember what we called it exactly):
  + 1) Players should be able to customise the tree when initially creating the planet – the system will make use of saving/loading to keep track of the choices players made. (list choices above)
  + 0) --- Add any new features above ---
* 2 | As a player I want to be rewarded with variety of different items:
  + Create a scriptable object for the rewards, allowing the designer to quickly add new items and tweak the variables on the go.
  + Adapt the existing system, to use the scriptable objects and the data from those.
  + Use probabilities, to decide how often an item should be given to the player (Unity article about probabilities: <https://docs.unity3d.com/Manual/RandomNumbers.html>)
* 1 | As a player I want to be able to sort items:
  + Create a scriptable object for the items that the user will sort, allowing the designer to quickly put together new sorting objects.
  + Adapt the system to use the scriptable objects and use the data from them.