**CS465 – Design Team #5**

**Technical Design Document for:**

# Tribe to Survive

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Version 3.1

## **Family Attributes**

* The “Community” is comprised of all “Families”.
* Each “Family” has a number of “Households”.

1. Population
   1. Population growth per season = (Prosperity \* Households) \* 0.5
2. Households – Number of Marriages Completed
   1. # Marriageable Men and # Marriageable Women
      1. Marriageable people occur by chance each season:
         1. Marriageable Chance per Household = ((Wealth \* Population) / Households) / 10,000.
         2. This marriageable person is a woman 52% of the time and male 48%.
3. Skill – Each of Activities: Hunting, Gathering, Farming, Production
   1. 10 experience gained when focused each season.
4. Capability = ((10% of each Skill) / 100) \* Population. (Round Down)
5. Wealth = Sum of Value of all Raw Materials and Finished Goods
6. Prosperity = (Capability + Wealth) / Population

## **Raw Materials**

|  |  |  |
| --- | --- | --- |
| Raw Materials | Wealth  Value |  |
| Bone | 1 | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Activity | Bone | Clay | Fiber | Shells | Stone | Wood | Hide | Food | | Hunting | b |  |  |  |  |  | c | d | | Gathering |  | a |  | a | a | c |  | a | | Farming |  | a | b | a | a |  |  | c | |
| Clay | 4 |
| Fiber | 2 |
| Shells | 8 |
| Stone | 1 |
| Wood | 3 |
| Hide | 2 |

* One (1) food is deducted for each member of the population each season.
  + Food shortage will cause “starvation,” where half the people who lack food die while the rest starve but somehow survive.
* Activity Yield Modifiers:
  + a = 0.25, b = 0.4, c = 0.6, d = 1.0
* Material Gain Per Season (for Family):
  + ((Community Capability \* 0.01) \* Yield Modifier) +
  + ((Capability \* 0.1) \* Yield Modifier ) +
  + (((Activity Skill \* Households Performing Trade) \* 0.1) \* Yield Modifier)

## **Finished Goods**

|  |  |  |  |
| --- | --- | --- | --- |
| Good | Material(s) |  |  |
| Homes \* | 20 Wood, 4 Skins |  |  |
| Tents \* | 10 Skins, 2 Wood, 1 Fiber |  |  |
| Pottery | 5 Clay, 1 Shell, 1 Wood |  |  |
| Tools | 1 Stone, 2 Wood, 2 Fiber |  |  |
| Jewelry | 5 Shells, 1 Fiber |  |  |
| Clothes \* | 3 Fiber, 5 Skins |  |  |
| Fire\* | 4 Wood |  |  |

* TODO: Combine below Wealth Value per finished good into above Finished Goods table.
* Wealth Value per Finished Good (Non-Perishable)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Home | Tent | Pot | Tool | Jewelry |
| 68 | 28 | 31 | 4 | 42!!!!!!!!!!!!!!!! |

* \*TODO\* Create table with Activities on y-axis, Finished Goods on x-axis: “Finished Good Experience Offset” i.e. Number of Pots you have increases your gathering skill experience gain by 0.01% per pot.

## **Skills/Trades**

* Experience gain each season = 10 \* (Households Participating) + Finished Good Offset
* Experience per Level 40
* Trade skill is the skill's level.
* While doing a mini-game, spawn rate can be moderated by time.

## **EVENTS**

* Event “Polarity”
  + Polarity operates by checking the polarity of each event going on or to occur and if the polarity letter is already present it restricts
* **Environmental Events**
* Globally effect all families

|  |  |
| --- | --- |
| Chance | Environmental Events |
| 1-90% | None |
| 91-95% | 1 Event |
| 96-98% | 2 Events |
| 99-100% | 3 Events |

* (Chance to have a given number of events that are global)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Chance | Event | F | Sp | Su | W | Duration (Seasons)(Polarity) | Effect  Damage Skill Yield (%) |
| 1-6% | Drought | X | X | X | X | 1-3 |  |
| 7-10% | Flash Flood | X | X |  |  | 1 |  |
| 11-25% | Heavy Rain | X |  | X |  | 1-2 |  |
| 26-55% | Good rain |  | X | X |  | 1 |  |
| 56-85% | Snow | .25X | .25X |  | X | 1 |  |
| 86-95% | Severe Thunderstorm | X | X | X |  | 1 |  |
| 96-100% | Tornado | X | X |  |  | 1 |  |

* **Family Events**

|  |  |
| --- | --- |
| Chance |  |
| 1%-97% | Nothing |
| 98%-100 | **Twins!!** Add 2 or 3 to population of Family. |

* (Chance each season)
* **Historic Events**

|  |  |
| --- | --- |
| Time (Year,Season?) |  |
| Pass By |  |
| Visitation |  |
|  |  |

* Map Ideas:
* 