**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 of the whole family
   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 (base) skill 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 |
| Skins | 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) | Wealth  Show a calculation for WEalth Value | Time to Produce |
| Homes | 20 Wood, 4 Skins | 70 | 1 |
| Tents | 10 Skins, 2 Wood, 1 Fiber | 30 | 0.2 |
| Pottery | 5 Clay, 1 Shell, 1 Wood | 40 | 0.1 |
| Tools \* | 1 Stone, 2 Wood, 2 Fiber | 5 | 0.2 |
| Jewelry | 5 Shells, 1 Fiber | 50 | 0.25 |
| Clothes \* | 3 Fiber, 5 Skins | 16 | 0.1 |
| Fire\* | 4 Wood | 12 | \* |

* TODO
* Wealth Value of Finished good sum of all raw material wealth values + 20\*Time to produce

\*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 gain by 0.01% per pot.

## **Skills/Trades**

Experience gain each season = 10 \* (Households Participating) + Finished Good Offset

## **EVENTS**

**Environmental Events**

* Globally effect all families

|  |  |
| --- | --- |
| Chance | Environmental Events |
| 1-91% | None |
| 92-94% | Farming Event |
| 95-97% | Gathering Event |
| 98-100% | Hunting Event |

(Chance each season have a given number of events that are global)

TODO: Add a table such as below for each activity.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Farming | | | | | | | |
| Chance | Event | F | Sp | Su | W | Duration (Seasons) | Effect on Material Yield (%) |
| 1-6% | Drought | X | X | X | X | 1-3 | -20% |
| 7-10% | Flash Flood | X | X |  |  | 1 |  |
| 11-25% | Heavy Rain | X |  | X |  | 1-2 |  |
| 26-55% | Good rain |  | X | X |  | 1 | +20% |
| 56-85% | Snow | .25X | .25X |  | X | 1 |  |
| 86-95% | Severe Thunderstorm | X | X | X |  | 1 |  |
| 96-100% | Tornado | X | X |  |  | 1 |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Gathering |  |  |  |  |  |  |  |
| Chance | Event | F | Sp | Su | W | Duration (Seasons) | Effect on Material Yield (%) |
| 1-6% | Drought | X | X | X | X | 1-3 | -20% |
| 7-10% | Flash Flood | X | X |  |  | 1 |  |
| 11-25% | Heavy Rain | X |  | X |  | 1-2 |  |
| 26-55% | Good rain |  | X | X |  | 1 | +20% |
| 56-85% | Snow | .25X | .25X |  | X | 1 |  |
| 86-95% | Severe Thunderstorm | X | X | X |  | 1 |  |
| 96-100% | Tornado | X | X |  |  | 1 |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Hunting |  |  |  |  |  |  |  |
| Chance | Event | F | Sp | Su | W | Duration (Seasons) | Effect on Material Yield (%) |
| 1-6% | Drought | X | X | X | X | 1-3 | -20% |
| 7-10% | Flash Flood | X | X |  |  | 1 |  |
| 11-25% | Heavy Rain | X |  | X |  | 1-2 |  |
| 26-55% | Good rain |  | X | X |  | 1 | +20% |
| 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. |
|  | **Divource Family Breaks Up into 1 new family** |
|  | **Maybe Family ends but breaks into 2 new family** |

(Chance each season)

**Historic Events**

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

Map Ideas:

