# Hazards

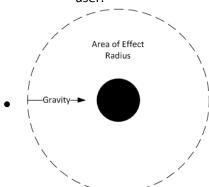
# **Functionality**

#### Coconut

- Intent
  - This bubble's intent is create a barrier that forces the user to pop surrounding bubbles to progress through the level.
- Properties
  - This bubble is not pop-able.
  - This bubble can only be removed from the board by popping attached bubbles above the coconut bubble.
  - Once dropped this bubble behaviors like a normal bubble.
- Art
- The bubble looks like a coconut.
- Tuning
  - N/A

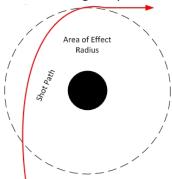
# Magneto

- Intent
  - This bubble's intent is to attract bubbles fired from the bubble shooter within a tunable distance surrounding the Magento Bubble. This is both helpful and hazardous for the user.



- Properties
  - This bubble is not pop-able.
  - This bubble can only be removed from the board by popping attached bubbles above the Magneto bubble.
  - Once dropped this bubble behaviors like a normal bubble.
  - There is a magnetic field surrounding the bubble that attracts bubbles fired from the bubble shooter.
    - This does not affect bubbles that drop around the Magneto bubble only ones fired from the bubble shooter.

- Possible implementation strategies could include adding gravity to the bubble to affect the balls trajectory.
- The user can use the gravity to effect the trajectory of their shots (as diagramed below)



- If the bubble fired from the bubble shooter is too close to the center of the magneto bubble it will attach to the bubble
- $\circ\quad$  The draw line from the bubble shooter bends if it's pointed near the magneto bubble.

Maybe this only works with the pointer upgrade?

- Art
- This bubble needs to look "magnetic" and animate.
- SFX
- Play a special sound effect when attaching to the magnetic bubble.
- Tuning
  - The area of effect radius.
  - The strength of the magnetic field (or gravity).

#### **Bouncy**

- Intent
  - This bubble's intent is to provide an interesting gameplay mechanic for the user. A
    bubble fired into a bouncy bubble does not attach but bounces off at an appropriate
    degree.
- Properties
  - This bubble is not pop-able.
  - This bubble can only be removed from the board by popping attached bubbles above the bouncy bubble.
  - Once dropped this bubble behaviors like a normal bubble.
  - When a bubble is fired into a bouncy bubble, the bubble will bounce off the bouncy bubble similarly to the wall.

How is the angle determined currently for wall bounces?

The draw line from the bubble shooter represents the angle in which the bubble will bounce off the bouncy bubble

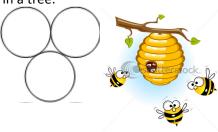
Maybe this only works with the pointer upgrade?

- Art
- This bubble needs to look rubbery and animate.

- SFX
- Play a special sound effect when colliding with the bouncy bubble.
- Tuning
  - Degree in which bubble bounces off the bubble.

#### **Beehive**

- Intent
  - The Beehive is a hazard that when activated will send a swarm of bees towards the monkey causing him to fire random shots into the rack.
- Properties
  - This hazard occupies three bubbles in the rack. The art is representative of a Beehive hanging in a tree.



- This bubble can only be removed from the board by popping attached bubbles above the Beehive bubbles.
- Once dropped this bubble behaviors like a normal bubble.
- Popping a bubble adjacent to the Beehive activates the Beehive.
- Numbered Countdown Numbered Countdown
  - When the user pops a bubble adjacent to the beehive activate
    a countdown timer (depicted in the art). The countdown timer
    decrements every time the user fires the shooter. When the
    countdown timer reaches a swarm of bees attack the monkey.
- o Bee Swarm
  - When the bee swarm is released an animated sheet of bees moves down over to the monkey.
  - While being "attacked" by the bees, the monkey will fire 3 shots into the rack at random degrees.
  - After the bees attack the monkey the beehive withers, dies, and falls out of the rack.
- Art
- The beehive has two states, active and dead.
  - Two bee animation sheets. An idle animation for the beehive and an attack swarm.
- SFX
- Idle beehive SFX.
- Attack swarm SFX.
- SFX when striking a beehive.
- Monkey screech when attack by bee swarm.
- Tuning

- Countdown number before releasing the attack swarm (Countdown Method)
- Percentage change of releasing the attack swarm (Random Swarm Activation Method)
- Number of shots to fire when monkey is attack by swarm.

## **Poacher Trap**

- Intent
  - The poacher trap automatically ends the level when struck by bubble.
- Properties
  - This hazard occupies on bubble in the rack. The art is representative of a bear trap.



- This bubble can only be removed from the rack by popping attached bubbles above the Poacher Trap bubble.
- Once dropped this bubble behaviors like a normal bubble.
- Striking the Poacher Trap bubble plays a trap close animation and ends the level.

The post-game dialog needs to explain why the user lost. "You set off the Poacher Trap"

- Art
- The Poacher Trap has two states, open and closed.
- SFX
  - Trap closing SFX.
- Tuning
  - N/A

### Spawner

- Intent
  - The spawner adds additional bubbles into the rack every time the user shoots.
- Properties
  - This hazard occupies one bubble space in the rack.
  - This bubble can only be removed from the rack by popping attached bubbles above the Spawner bubble.
  - Once dropped this bubble behaviors like a normal bubble.
  - The spawner bubble only fires an additional bubble into the rack when visible on the screen.
- Art
- Image of the spawner.

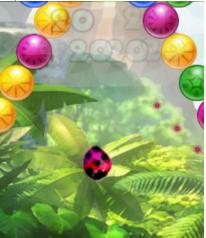
- Animation for when the spawner fires a new bubble into the rack.
- SFX
- Spawner firing a bubble.
- Tuning
  - N/A

# **Spoiled Fruit**

- Intent
  - Spoiled Fruit looks like a spoiled version of a normal bubble. Popping the bubble destroys it, dropping the fruit releases a rotten fruit that deducts points from the user's score if it falls into a basket.
- Properties
  - Each normal bubbled has a spoiled state.



- The bubble acts exactly like a normal bubble when popped. It has all the same properties as if the user popped a normal version of a similar colored bubble.
- If dropped, the fruit that falls out of the bubble is spoiled.



When the user drops spoiled fruit into a basket deduct the amount of points from the user's score.

Deduct the same amount as the basket would have awarded if it was a regular piece of fruit.

If the fruit falls between the basket do nothing.

Animate the star meter deducting points when rotten fruit falls into the basket Use the "coin awarded" style basket text colored red when the user drops rotten fruit into the baskets.

- Update the editor to support spoiled fruit. Add a random spoiled fruit type that when added to the rack acts as a normal random bubble except the bubble generated is spoiled.
- Art
- o 6 Spoiled Bubbles

These look like the current fruit in the game but in a spoiled state. The user still needs to distinguish the color of the fruit.

○ 1 Rotten Fruit

A piece of rotten fruit that will appear when the user drops a rotten fruit bubble. There only needs to be one rotten fruit that will drop for all fruit types.

- SFX
- Add a hook when a rotten fruit falls into a basket.
- Add a hook when popping a spoiled bubble.
- Tuning
  - N/A

#### **Time Bomb**

- Intent
  - Bomb explodes after X shots, unless you drop/pop bubbles with +X time extension

#### **Blossom**

- Intent
  - Flower spits out ~8 bubbles upon every shot, but the bubbles only land on existing bubbles, thus changing the color layout of rack.

#### **Row Adder**

- Intent
  - A special bubble is placed in a row, with a counter on it. When it reaches 0, an entire new row of random bubbles is added to the rack directly above the row that bubble was
  - The counter resets to 9, and begins auto counting down again with each successive shot.

#### **Spider Cocoon**

- Intent
  - A spider is placed on rack sitting on top of a bubble. The bubble underneath is largely covered by white cocoon string, but you can still see the color. After each shot, the spider moves randomly to another adjacent bubble and entombs it as well. The cocooned bubbles can be popped as normal with match-3, however the cocooned bubbles don't go away, they just lose their cocoon. This effectively causes bubbles to be popped 2 times.
  - Popping the bubble a spider is on will cause it to die.
  - Spider moves every move
  - Better kill spiders to avoid double hits

#### +Bubbles to Hopper

#### Intent

- The player would have limited bubbles in his hopper, and be forced to pop bubbles that are hidden in rack to add to your hopper.
- The bubbles in rack would appear to be rainbow bubbles, with a single digit floating on top. When you pop anything attached to it, you get that # of bubbles moving down to your hopper.
- Show an animation of bubbles firing down into your hopper/cannon to make it clear for player.
- Start level with super low bubbles 4

#### the VINES (Ball lock-up hazard)

#### Intent

• The Vines are special bubbles that over time grow over adjacent bubbles, 'locking' them up which prevents users from popping them.

#### Properties

- The hazard 'root' occupies one space on the rack
  - The 'root' can be popped via drops and direct hits from fire, coconuts, steel, lightning, and rainbow bubbles.
    - Standard Bubbles and Paint Boost Bubbles have no effect
  - Once dropped or destroyed, the root bubble behaves like standard bubble
    - Root drops withers all vines
- The hazard 'vines' grows/consumes adjacent bubbles on the rack
  - Growth happens in 2 states, half and full
    - Half covered Bubbles can be popped regularly
    - Fully covered Bubbles can not be popped by any boost bubble, or fire
  - Vines can consume standard bubbles and coin bubbles
    - Bees, Coconuts, steel, spawners, poacher traps, and empty slots <u>cannot</u> have vine growth
- Half consumed bubbles, once popped, will whither the entire vine chain to the root and 1 adjacent, half consumed bubble (level starting state)
  - If the root is still connected, it will continue regularly
  - Roots without a growth opportunity will do nothing
    - The final bubble in a vine chain cannot be fully locked, must remain half
- Growth Pattern & Rate
  - Levels begin with all roots half consuming an adjacent bubble
  - Each cannon shot triggers one vine growth for one\* on screen root vine with a growth opportuinity
    - Growth direction is set by the Root Bubble and a
    - Vines can grow
    - \*Tuning ability required to test specify whether 1 visible vine or all visible vines should grow

#### Art

- Root Bubble
- Vine States
  - Half Cover (growing state)
    - Horizontal (works left and right)

- Angled (all directions)
- Full Cover
- Vine animations
  - Growth
  - Whither
- FTUE
  - Baby FTUE appears on initial Vine level (66)
- SFX
  - Vine growing
  - o Canon bubble collision with wrapped vine
  - Whitering
- Level Editor Update
  - 3 New Editor Bubbles needed (allows devs to start levels with vines in progress)
    - Root Bubble
    - Full Vine (with Random standard bubble)
    - Half Vine (with Random standard bubble)
  - Dev Tuning
    - Half Vines placed adjacent to a Root Vine will specify the initial growth direction
    - Root Vines without an adjacent Half Vine will randomly choose their direction at the start of the level