

zone2_2: Gabriela's Balancing Act

Setup:

Lever is balanced. fulcrum = state1.

1. Birdhouse and birdfeeder are pre-attached (and fixed) to lever.
 - birdhouse = 30
 - birdfeeder = 30 (80% full)
 - egg1 and egg2 in nest (in tree trunk)
1. Play **gab_intro** + **gab_balanced**
2. Play **bigbird_enter** x 3 (to add 3 bigbirds to game screen). At least 1 bird must go to c1-c8 OR **birdfeeder** OR **birdhouse perch** (to tip lever).
3. Play **gab_prompt**. Change **fulcrum** = state2. If no click and X seconds, replay **gab_prompt**.

Object Behaviors (also see [Weights table](#))

A child can move (click and stick) these objects:

- babybird
- bigbird
- cocoon (b1-b8)

A child can click to modify these objects:

- egg: click to hatch babybird.
- birdhouse:
 - if cursor = empty, click to remove babybird.
 - if cursor = babybird, click to add babybird
 - if cursor = bigbird AND perch = empty, click to attach bigbird to perch.
- birdfeeder: if cursor = bird, click to attach bird to feeder. Then auto-play **baby/bigbird_eat** + **baby/bigbird_exit**.
- seedbag: if cursor = empty, click to fill birdfeeder 1 level.
- cocoon (d1-d8): click to hatch butterfly (removing cocoon from lever).

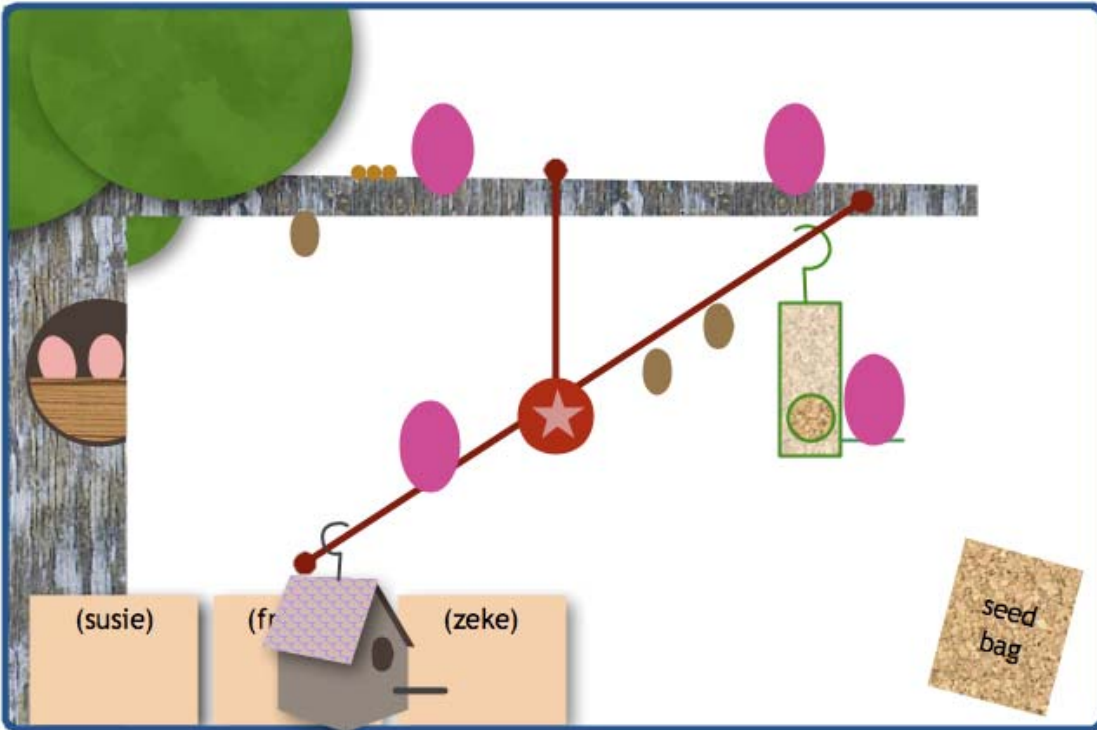
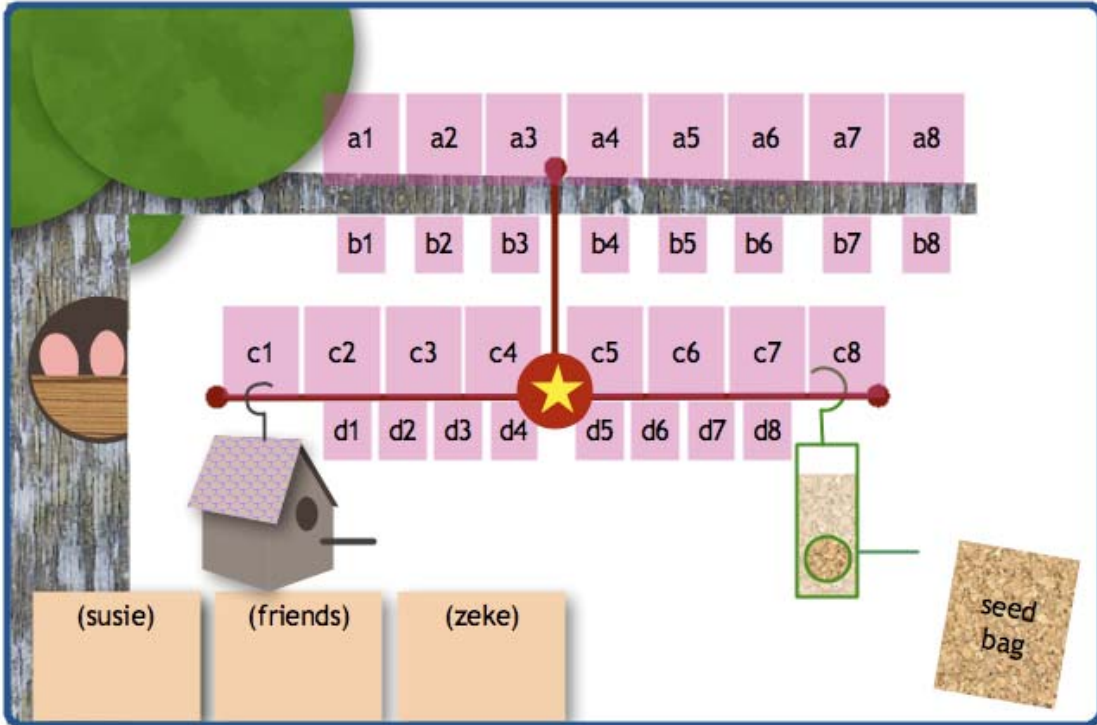
These objects behave independently (no click) ONLY AFTER LEVER = STEADY (= NOT MOVING).

At random intervals:

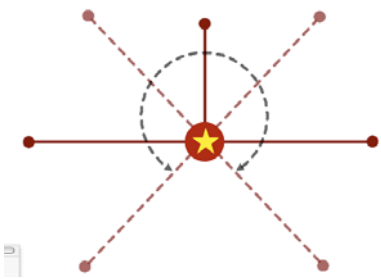
- (LEVEL2) cocoon: if b1-b8 is vacant, play **caterpillar_intro**. If corresponding a1-a8 is occupied, play **baby/bigbird_eat**. ELSE, play **caterpillar_drop**.
- (LEVEL2) babybird: may exit screen.
- (LEVEL2) bigbird: may enter/exit screen.

After lever is balanced 2 times, LEVEL2 behaviors activated.





Gabriela's Balancing Act

Element	Art & Animation	VO/SFX	Action	Notes
background	Show tree with lever suspended from branch.			
lever	<p>Lever and objects appear on top layer (above navigation). This way, lever and clickable objects are not obstructed.</p> <p>Lever's maximum range = 270 degrees (ie. it may tip 45 degrees left or right from horizontal orientation).</p> <p>Lever moves in increments of 5 degrees (ie. 9 steps in either direction)</p> <p>Lever can never be fully vertical.</p> 		<p><u>Tip</u> If object is added/removed to lever (c1-c8 OR d1-d8), adjust tip (see Weights table).</p> <p><u>Orientation</u> On tip, orientation of objects attached to lever does <u>not</u> change.</p> <p><u>Balance</u> The lever is balanced if the difference between (cumulative weight left) - (cumulative weight right) = 0.</p> <p>If the lever is balanced:</p> <ul style="list-style-type: none"> • fulcrum = state1 • play gab_balance 	
fulcrum	<p>state1: star highlighted (looped animation. ex. star shoots sparkles)</p> <p>state2: star <u>not</u> highlighted</p>		<p>If the lever is balanced: fulcrum = state1. Change to state2 (stop animation) only when lever is unbalanced.</p>	
gab_intro		<p>gab_intro This lever is like a see-saw. The sides go up and down.</p>		



Element	Art & Animation	VO/SFX	Action	Notes
		Right now, the lever is perfectly straight!		
gab_balanced		gab_balanced It's balanced!	If the lever is balanced: play VO.	
gab_prompt		gab_prompt You can move some things on and off the lever.	Play if X seconds and no action.	
gab_babybird		gab_babybird A baby bird!		
gab_butterfly		gab_butterfly A butterfly!		
gab_seedbag		gab_seedbag It's birdseed!		
birdhouse	Birdhouse is fixed location on lever. It must appear to be same weight as birdfeeder (filled to 80%). Birdhouse has a hole. Birdhouse has a perch.	SFX: squeeze/pop	<u>On click:</u> If cursor = empty: <ul style="list-style-type: none"> • play SFX: squeeze/pop • play babybird_exit (see below) • adjust tip (see Weights table) If cursor = babybird: <ul style="list-style-type: none"> • play SFX: squeeze/pop (babybird enters house) • remove babybird from cursor (to imply that it entered house) 	



Element	Art & Animation	VO/SFX	Action	Notes
			If cursor = bigbird AND perch = empty: <ul style="list-style-type: none"> attach bigbird to perch adjust tip (see Weights table) 	
bigbird	Idle animation. Scale: 8 fit across branch. 4 fit on each side of lever (see sketch). Does not fit in birdhouse.	SFX: tweet	<u>On rollover</u> , play SFX: tweet <u>On click</u> , attach to cursor.	
bigbird_fly	bigbird_flight is looped wing flap. Use with bigbird_enter/exit.	SFX: wing flap		
bigbird_eat	bigbird pecks. Animation used to simulate eating caterpillar or birdseed.		Play if: <ul style="list-style-type: none"> bigbird on a1-a8 AND caterpillar stops on same a1-a8 OR bigbird attached to birdfeeder. 	
bigbird_exit	Flight path. bigbird flies upward and off screen from a1-a8, c1-c8, OR birdfeeder. (See bigbird_fly)		Play if: <ul style="list-style-type: none"> bigbird attached to birdfeeder AND bigbird_eat complete. Then adjust tip (see Weights table) <u>Level 2:</u> Every X seconds, random-select (c1-c8). IF occupied by bigbird: <ul style="list-style-type: none"> play bigbird_exit 	



Element	Art & Animation	VO/SFX	Action	Notes
			<ul style="list-style-type: none"> adjust tip (see Weights table) 	
bigbird_enter	Flight path. bigbird flies onscreen and lands on vacant a1-a8 OR c1-c8. (See bigbird_fly)		<u>Level 2:</u> Every X seconds, random-select (a1-a8). IF vacant, play bigbird_enter	
birdfeeder	birdfeeder has perch that accommodates bigbird or babybird. birdfeeder has 6 fill levels: 0, 20%, 40%, 60%, 80% (default), 100%. Birdfeeder is filled to next level by clicking seedbag (see below).			
seedbag	A bag of bird seed sits at bottom right.	SFX: fill	<u>On rollover</u> , play gab_seedbag <u>On click:</u> <ul style="list-style-type: none"> play SFX: fill change birdfeeder level adjust tip (see Weights table) 	
egg_hatch	egg1 and egg2 appear in nest. An egg has 2 states: <ul style="list-style-type: none"> state1: whole state2: cracked 	SFX: egg crack	<u>On egg click:</u> <ul style="list-style-type: none"> egg state1 --> state2 play SFX: egg crack play gab_babybird swap egg with babybird 	



Element	Art & Animation	VO/SFX	Action	Notes
babybird	Idle animation. Scale: babybird is smaller than bigbird. Babybird fits in birdhouse. (Bigbird does not.) babybird appears on screen after egg is hatched (see egg_hatch above).	SFX: chirp	<u>On rollover</u> , play SFX: chirp <u>On click</u> , attach babybird to cursor. Once nest = empty (babybirds are attached to a1-a8, c1-c8, birdfeeder, or birdhouse), 2 replacement eggs appear in nest.	
babybird_fly	babybird_flight is looped wing flap. Use with babybird_exit.	SFX: wing flap		
babybird_eat	babybird pecks. Animation used to simulate eating caterpillar or birdseed.		Play if: <ul style="list-style-type: none"> • babybird on a1-a8 AND caterpillar stops on same a1-a8 • OR, babybird moved to birdfeeder. 	
babybird_exit	Flight path. babybird flies down and off screen from a1-a8, c1-c8, birdfeeder, or birdhouse. (See babybird_fly)		Play if: <ul style="list-style-type: none"> • babybird attached to birdfeeder AND babybird_eat complete • cursor = empty and click birdhouse Then adjust tip (see Weights table) <u>Level 2:</u> Every X seconds, random-select (c1-c8). IF occupied by babybird: <ul style="list-style-type: none"> • play babybird_exit 	



Element	Art & Animation	VO/SFX	Action	Notes
			<ul style="list-style-type: none"> adjust tip (see Weights table) 	
cocoon	<p>Three animations:</p> <ul style="list-style-type: none"> caterpillar_intro: caterpillar crawls along branch and stops. caterpillar_drop: drops to bottom of branch (b1-b8) and transforms into cocoon. cocoon_hatch: cocoon opens. Butterfly flies off screen (REUSE butterfly animation). Cocoon falls off tree. 		<p>(LEVEL2) Random-select vacant (b1-b8). Play caterpillar_intro. Caterpillar enters and stops on corresponding (a1-a8).</p> <ul style="list-style-type: none"> If stop is occupied by bird (a1-a8), play baby/bigbird_eat. ELSE, play caterpillar_drop. <p>Click (b1-b8) cocoon to attach to cursor. Click to stick to vacant:</p> <ul style="list-style-type: none"> b1-b8 d1-d8. Adjust tip <p>On d1-d8 click:</p> <ul style="list-style-type: none"> play cocoon_hatch play gab_butterfly adjust tip (see Weights table) 	REUSE butterfly animation (see Home specs).
itm_button			<p>If itm = ON, display button on zone2_2. On click, open itm_zone2_2.</p>	
itm_zone2_2	<p>Show 2 see-saws: (Looped animation) Show see-saw with child on each end. See-saw</p>		<p>On click, close itm_zone2_2.</p>	ITM review process (TBD).



Element	Art & Animation	VO/SFX	Action	Notes
	<p>goes up and down (rhythmically). (Illustration) Show adjacent see-saw with offset fulcrum (closer to one child). Note that child furthest from fulcrum is on the ground. Child closest to fulcrum is stuck in the air - feet dangling.</p> <p>(Text) A lever is a simple machine. It is a plank that pivots on a fulcrum. A see-saw is a lever. Its fulcrum is in the middle. If the fulcrum is off-center, it is harder to move the lever!</p> <p>Levers are everywhere! A door, a swing, a toilet seat! How many levers can you find?</p>			



Weights

This chart defines tip values and valid “snap-to” positions. Objects’ animations are described in previous table.

*Defined tip values may be adjusted later to fine-tune gameplay.

level	object	tip (degrees)*	Start position	May be snapped to vacant:	Action
1	birdhouse	max = 40 default = 30 min = 15	fixed	NA	<p><u>Setup</u>: Birdhouse position is fixed.</p> <p>On click:</p> <p>If cursor = empty</p> <ul style="list-style-type: none"> • play anim babybird_exit • birdhouse tip -5 (min = 15) <p>If cursor = babybird</p> <ul style="list-style-type: none"> • birdhouse tip +5 (max = 40) <p>If cursor = bigbird</p> <ul style="list-style-type: none"> • birdhouse tip +10 (max = 40)
1/2	bigbird	10	a1-a8 c1-c8 birdfeeder	a1-a8 c1-c8 birdfeeder birdhouse perch	<p><u>Setup</u>: Display 3 birds on (a1-a8).</p> <p>Click bigbird to attach it to cursor.*</p> <p>Click to stick to vacant:</p> <ul style="list-style-type: none"> • a1-a8 • c1-c8 (tip +10) • birdfeeder (tip +10) • birdhouse perch (tip +10) <p>*If origin = c1-c8 OR birdfeeder OR birdhouse, tip -10.</p> <p>If attached to birdfeeder, play:</p> <ul style="list-style-type: none"> • bigbird_eat (seedbag -5) + bigbird_exit (-10) <p><u>LEVEL2</u>:</p> <p>Every X seconds, random-select (a1-a8).</p> <ul style="list-style-type: none"> • IF vacant, play bigbird_enter <p>Every X seconds, random-select (c1-c8).</p> <ul style="list-style-type: none"> • IF occupied by baby/bigbird, play



level	object	tip (degrees)*	Start position	May be snapped to vacant:	Action
					baby/bigbird_exit (adjust tip -5/-10)
1	birdfeeder	max = 35 (100%) default = 30 (80% full) min = 10 (0%)	fixed	NA	<p><u>Setup</u>: Birdfeeder position is fixed. If perch = empty, bigbird or babybird may be attached to birdfeeder.</p> <p>On click:</p> <p>If cursor = bigbird</p> <ul style="list-style-type: none"> • attach bigbird to birdfeeder • play bigbird_eat + bigbird_exit • adjust birdfeed tip -5 (min 10) and -10 (bigbird) <p>If cursor = babybird</p> <ul style="list-style-type: none"> • attach babybird to birdfeeder • play babybird_eat + babybird_exit • adjust birdfeed tip -5 (min 10) and -5 (babybird)
1	seedbag	5			Click seedbag to fill birdfeeder one level. Adjust birdfeeder tip +5 (max = 35).
1/2	babybird	5	nest	a1-a8 c1-c8 birdfeeder	<p><u>Setup</u>: Nest is in tree trunk with 2 eggs.</p> <ul style="list-style-type: none"> • Click nest to play egg_hatch. (Eggs do <u>not</u> attach to cursor.) • Click a babybird to attach it to cursor.* <p>Click to stick to vacant:</p> <ul style="list-style-type: none"> • a1-a8 • c1-c8 (tip +5) • birdfeeder (tip +5) • birdhouse (tip +5)



level	object	tip (degrees)*	Start position	May be snapped to vacant:	Action
					<p>*If origin = c1-c8 OR birdfeeder, tip -5. If attached to birdfeeder, play:</p> <ul style="list-style-type: none"> • babybird_eat (-5) + babybird_exit (-5) <p><u>LEVEL2:</u> Every X seconds, random-select (c1-c8).</p> <ul style="list-style-type: none"> • IF occupied by baby/bigbird, play baby/bigbird_exit (adjust tip -5/-10)
2	cocoon	5		d1-d8	<p>(LEVEL2) Random-select vacant (b1-b8). Play caterpillar_intro. Caterpillar enters and stops on corresponding (a1-a8).</p> <ul style="list-style-type: none"> • If stop is occupied by bird (a1-a8), play baby/bigbird_eat. • ELSE, it play caterpillar_drop on b1-b8. <p>Click cocoon to attach to cursor. Click to stick to vacant:</p> <ul style="list-style-type: none"> • b1-b8 • d1-d8 (tip +5) <p>On d1-d8 click:</p> <ul style="list-style-type: none"> • play cocoon_hatch • play gab_butterfly • tip -5

