Designing Educational Games: Not Just Child's Play

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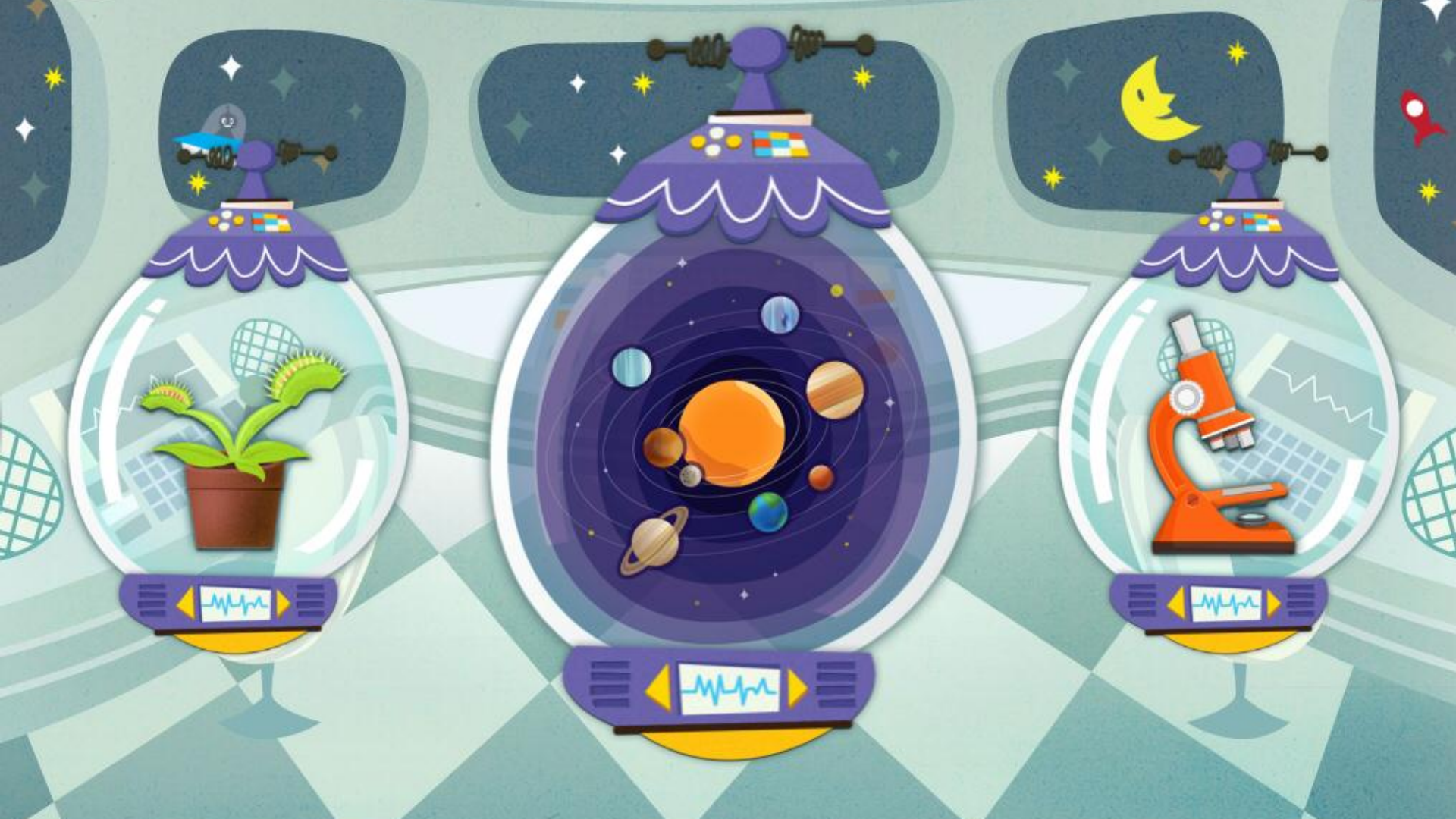
GAME DEVELOPERS CONFERENCE™ CHINA
SHANGHAI INTERNATIONAL CONVENTION CENTER
SHANGHAI, CHINA · OCTOBER 19–21, 2014

piig

Piiig
Labs

1

Make Education a Priority

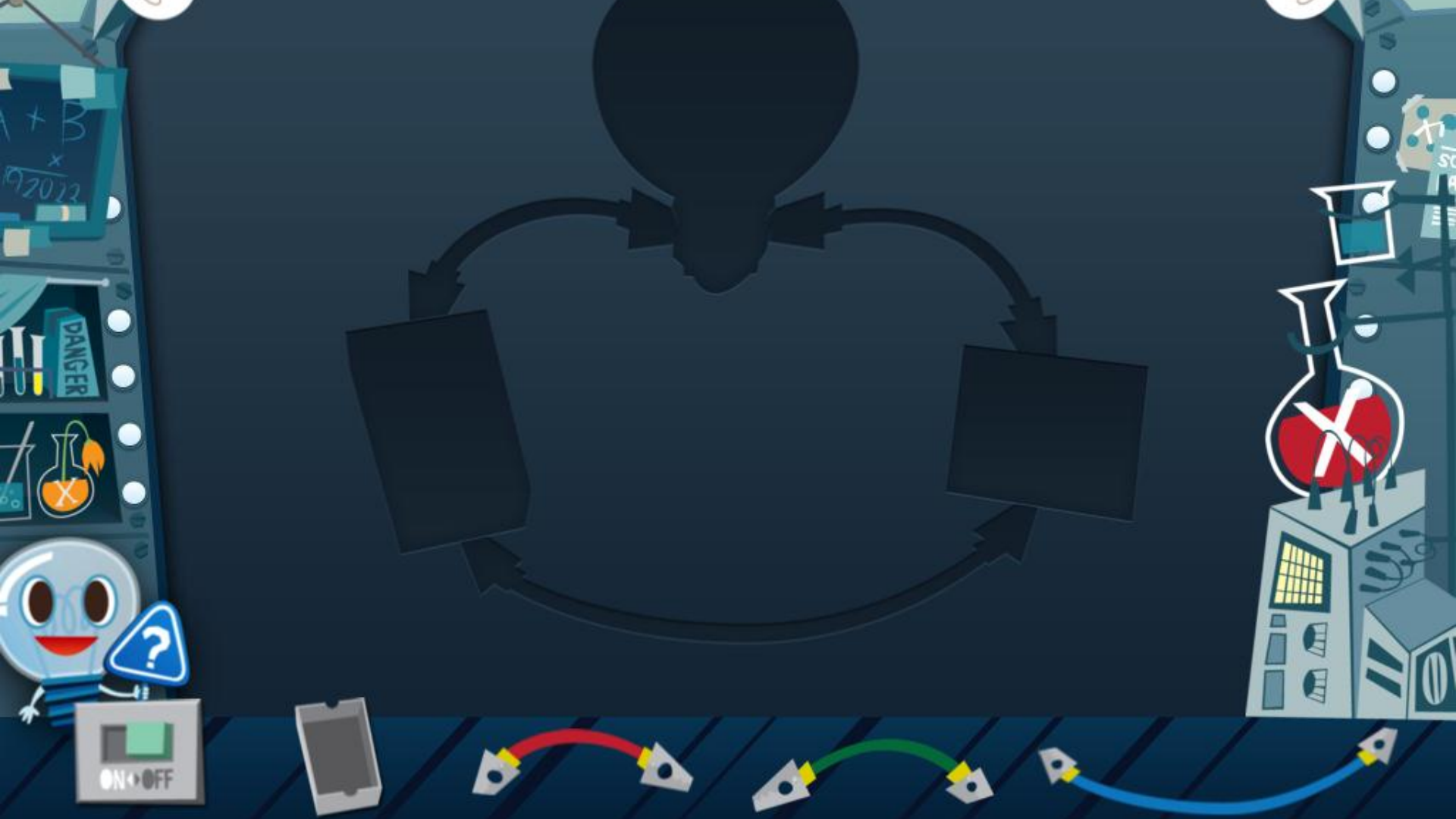


DANGER
ABC
VINEGAR
Baking Soda

FLY
1
2
3
SUGAR
4
5
6
7
8
9

2

Know Your Age Group

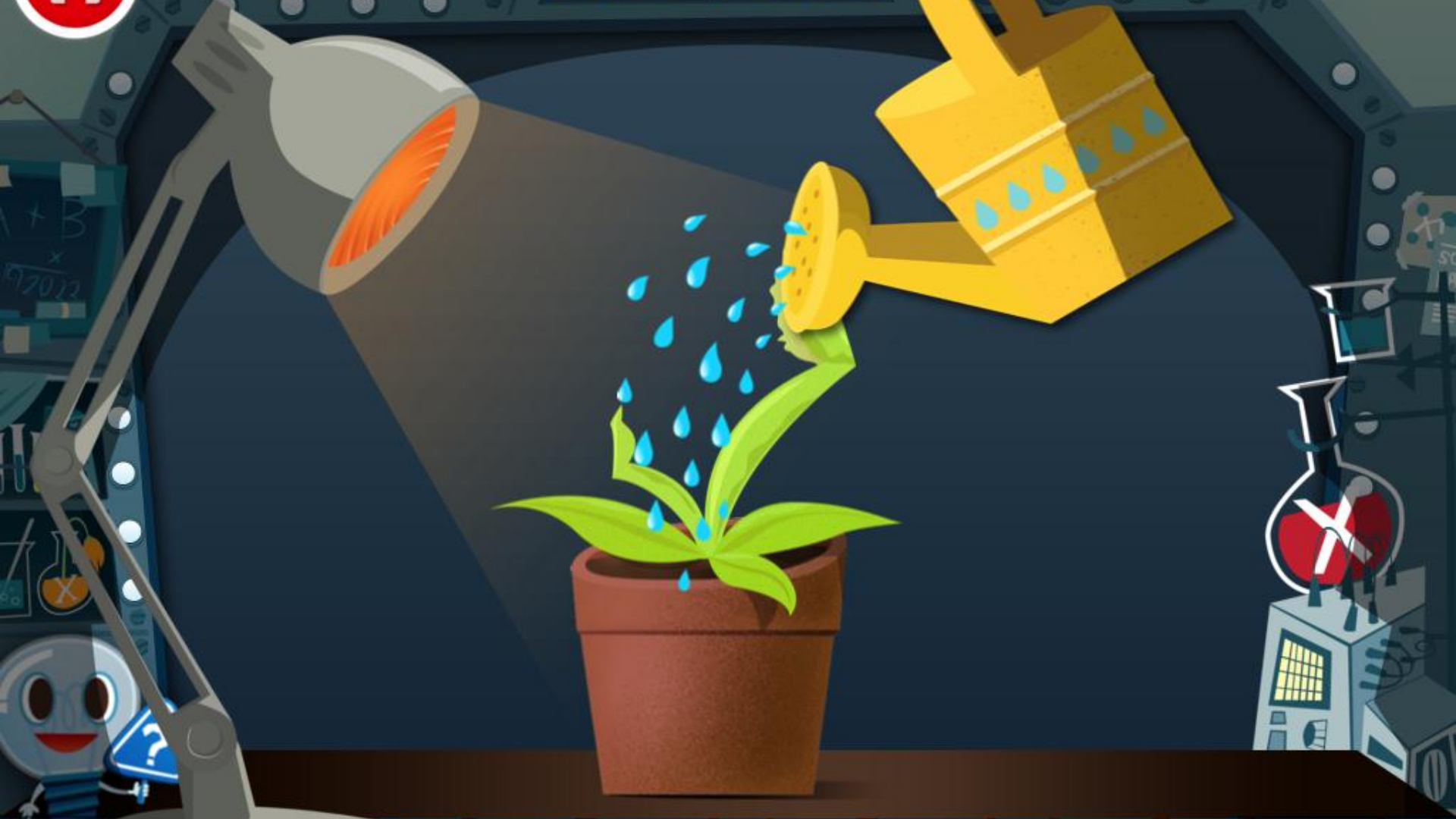

DANGER
ON OFF

Electricity travels at the speed of light - more than 300,000 kilometers per second!

3

Have clear goals

DANGER



85
10
30
50

4

Build up complexity over time

DANGER
ABC
VINEGAR
Baking Soda

DANGER
ABC
VINEGAR
Baking Soda

5

Give appropriate feedback

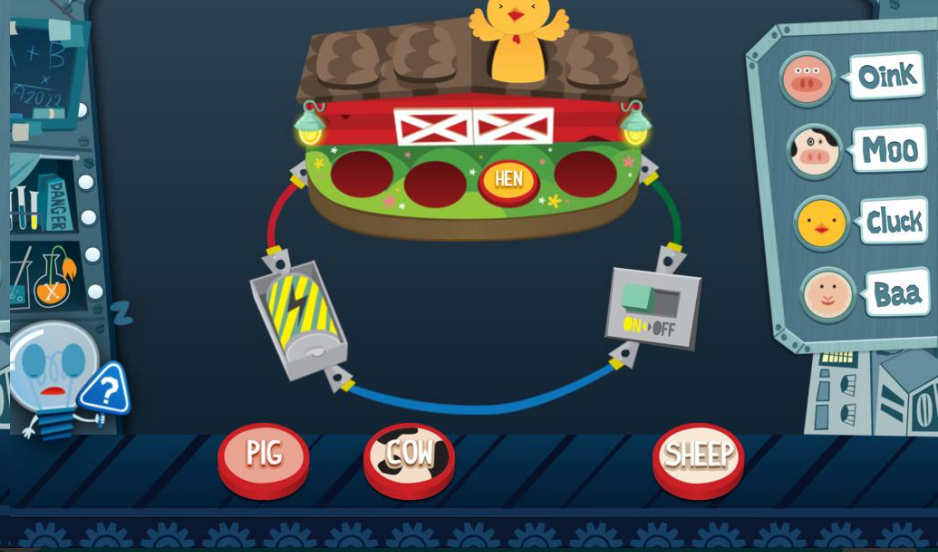
DANGER
ON
OFF

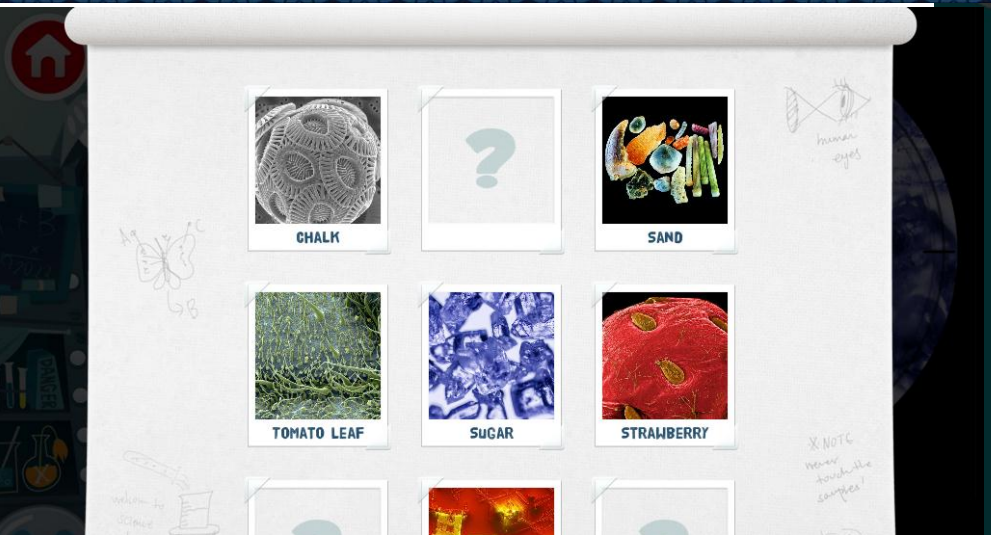
DANGER

6

Make learning rewarding

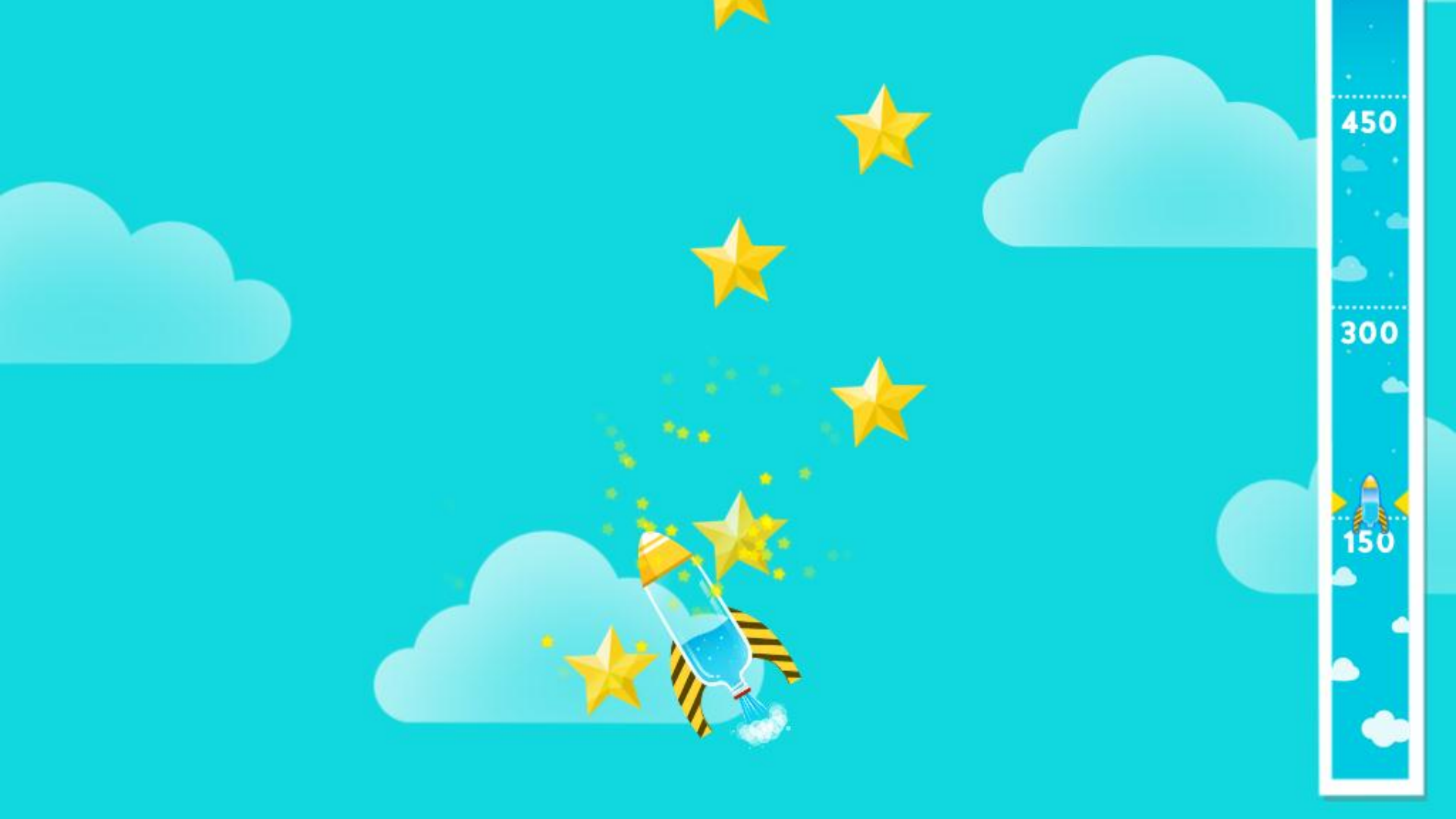
ABC
VINEGAR
Baking Soda
DANGER


HEN
ON OFF
Oink
Moo
Cluck
Baa
PIG
COW
SHEEP
DANGER


CHALK
SAND
TOMATO LEAF
SUGAR
STRAWBERRY

590
EMPIRE STATE BUILDING
381.0m
405 m
107
600
450
300
150

LOCKED
LOCKED


450
300
150

450
300
150

450
300
150m

7

Tell a story

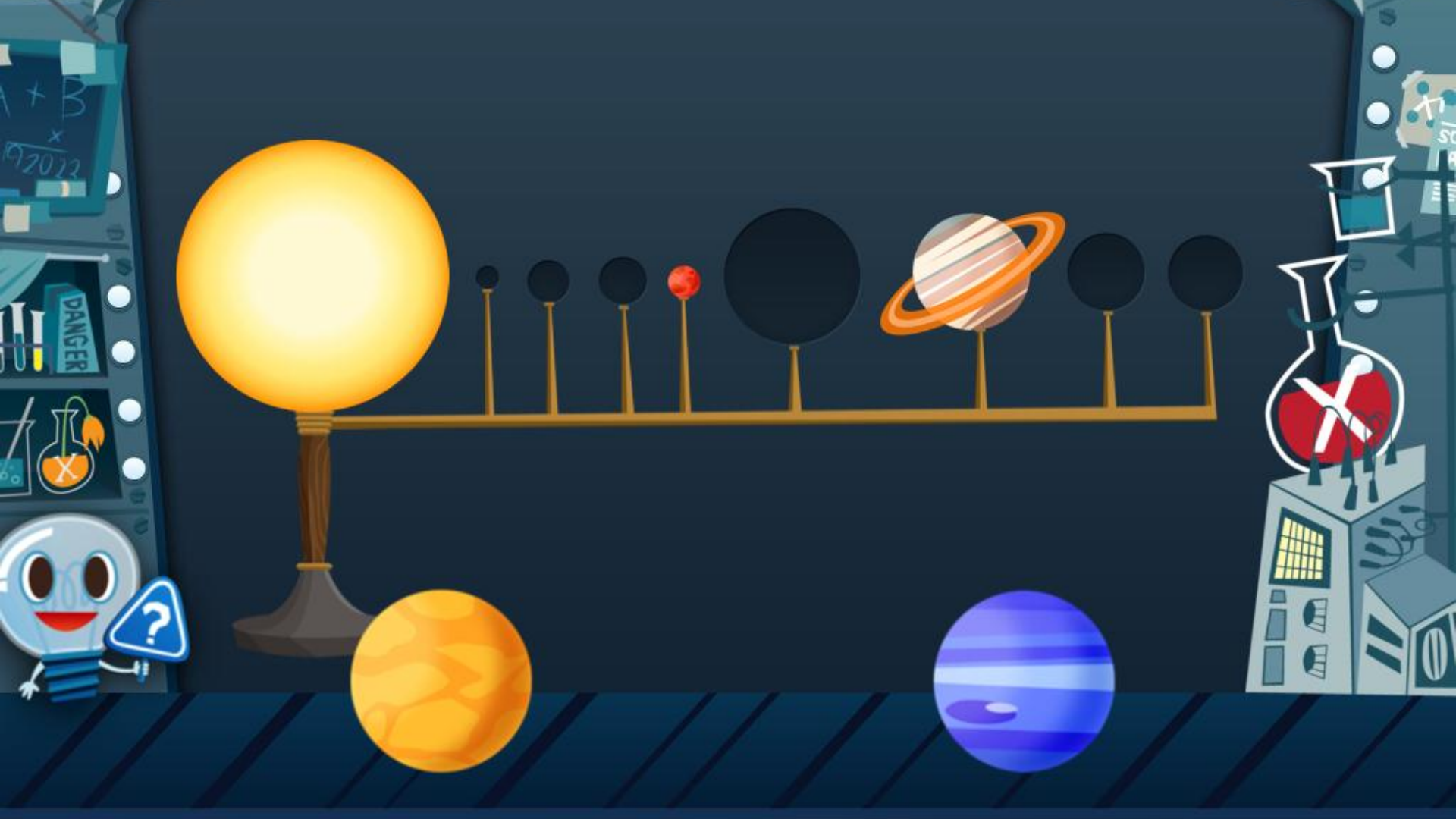
THE LOUDEST
ROAR

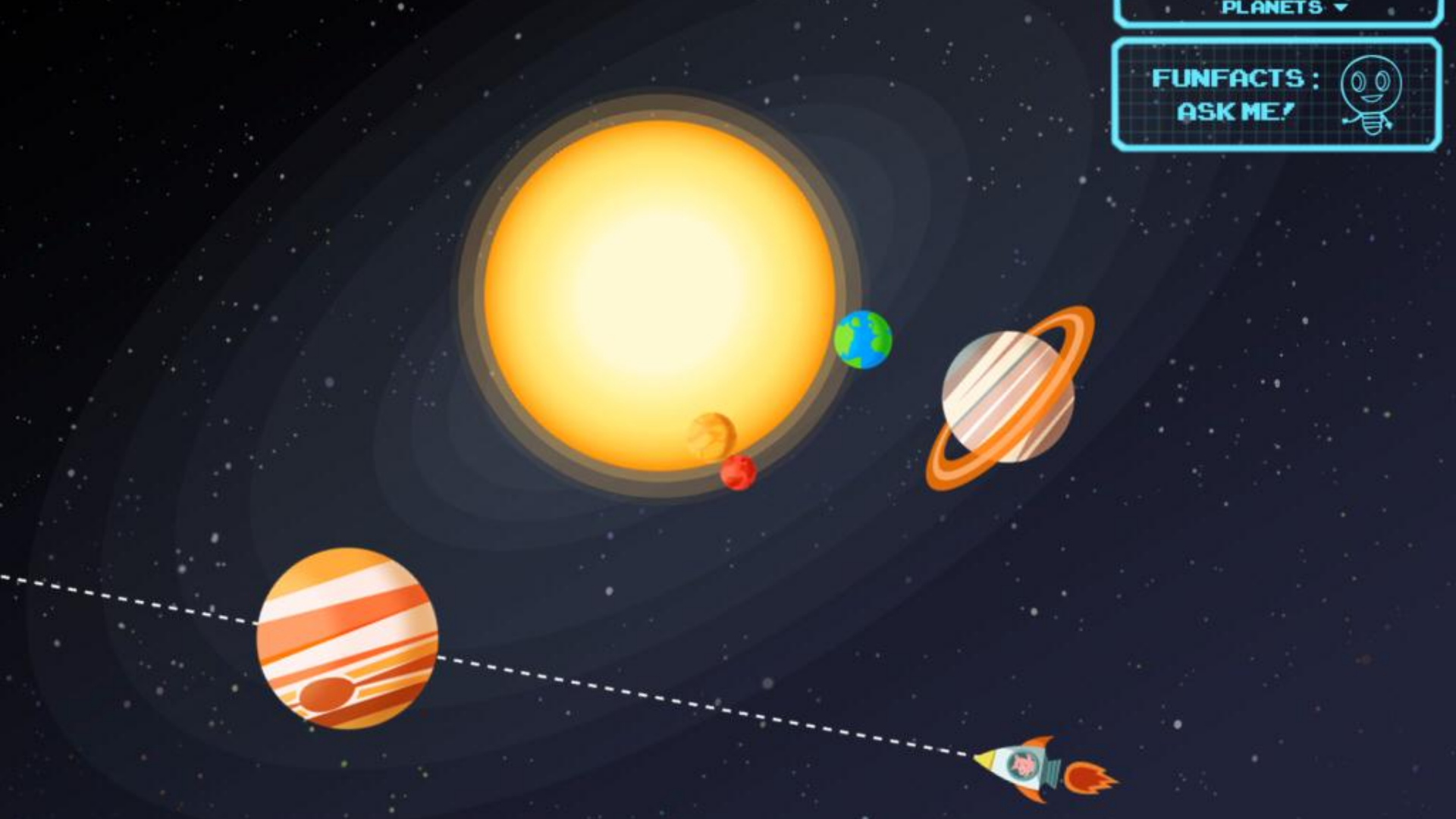
CHAPTER V
THE SPIRE
IN WHICH
IDA ENCOUNTERS
THE BOTHERSOME
CROW PEOPLE

HOW LONG
HAVE YOU WANDERED,
SILENT PRINCESS?

8

Learning needs reinforcement


DANGER


PLANETS
FUNFACTS :
ASK ME!

9

Tracking and reporting

“If you can't measure it,
you can't improve it.”

- Peter Drucker

ROCKET
木星
MISSION
VIDEO
CHANNEL 2
LANDING:
3011102038
PIIIGNO.1
1101001
10011100101
COMPLETE
水星
金星
地球
火星
木星
土星
天王星
海王星

kidaptive

Overview

Tanner

Status

Timeline

Kayden

Status

Timeline

Tanner

Tap to browse the seven category bubbles to explore Kidaptive's Curriculum. Each bubble represents a set of behaviors that promote successful learning in the future, both in and out of school.

Control Yourself

Figure Stuff Out

Acquire Physical Routines

Gather Necessary Knowledge

Interact With Others

Love Learning

Be Creative

Overview

Tanner

Status

Timeline

Kayden

Status

Timeline

Today

Tanner has created an image in **Rocket Tracing** from **Rocket to the Stars**

Tanner played
Rocket Tracing

It's Kayden's birthday
Happy Birthday from Leo!

Improvements in Kayden's
Positional Language

Kayden played
Space Explorers

Milestone Achieved

Kayden has achieved **basic level** of **Positional Language**

Kayden can understand 'left' and 'right'

Positional Language
Vocabulary on relative positions such as right, left, behind, in front, next to, etc

Basic Positional Vocabulary
understand 'left' and 'right'

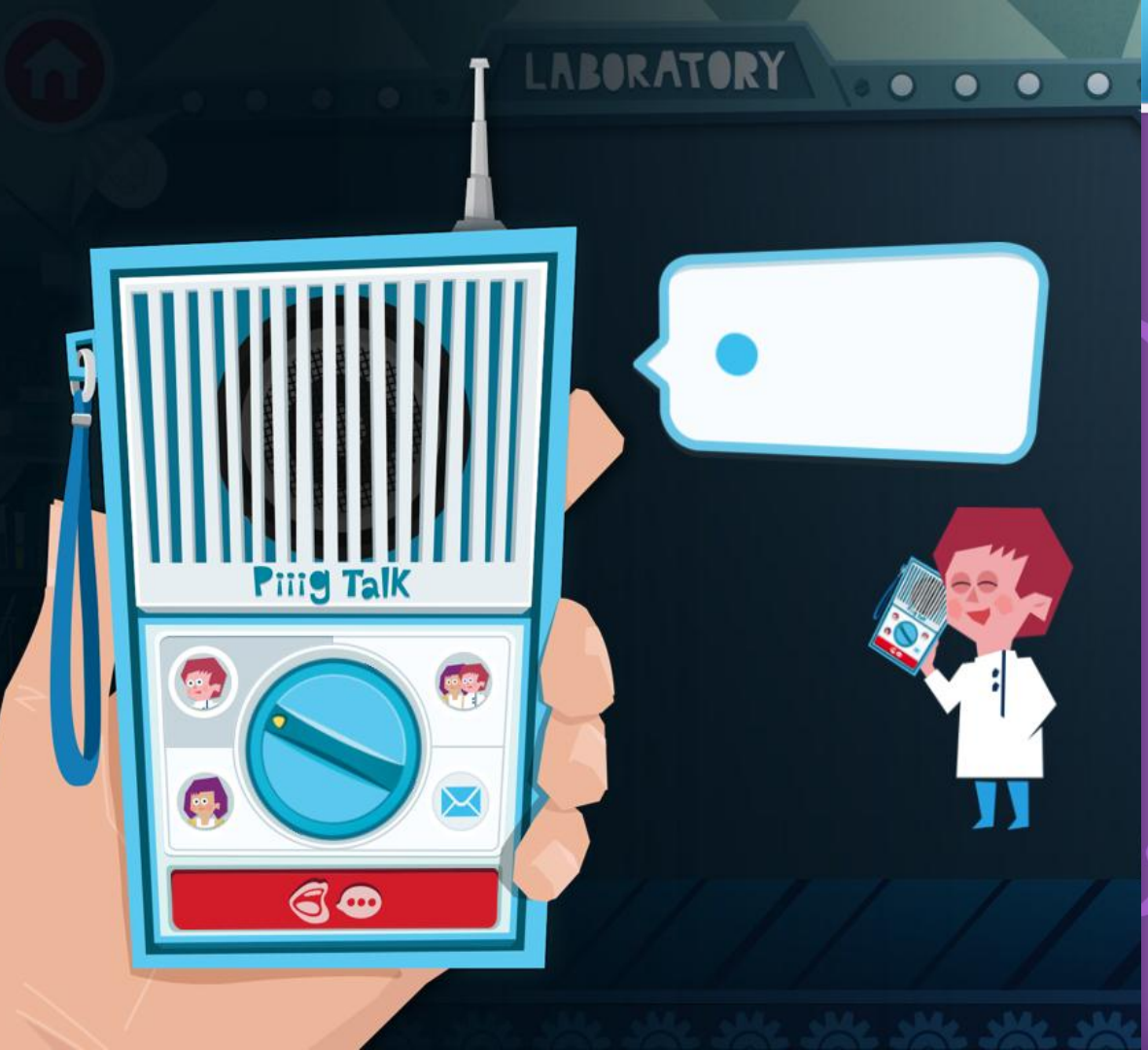
Intermediate Positional Vocabulary
understand directional language for motion (forward, backward, up, down)

Advanced Positional Vocabulary
understand language relating objects to each other

Bonus!

10

Make learning social


LABORATORY
Piiig Talk

piig

Mobile Devices and Mobile Applications in Pre-K to Grade 3 Families

Executive Summary

A Report to the CPB-PBS Ready To Learn Initiative

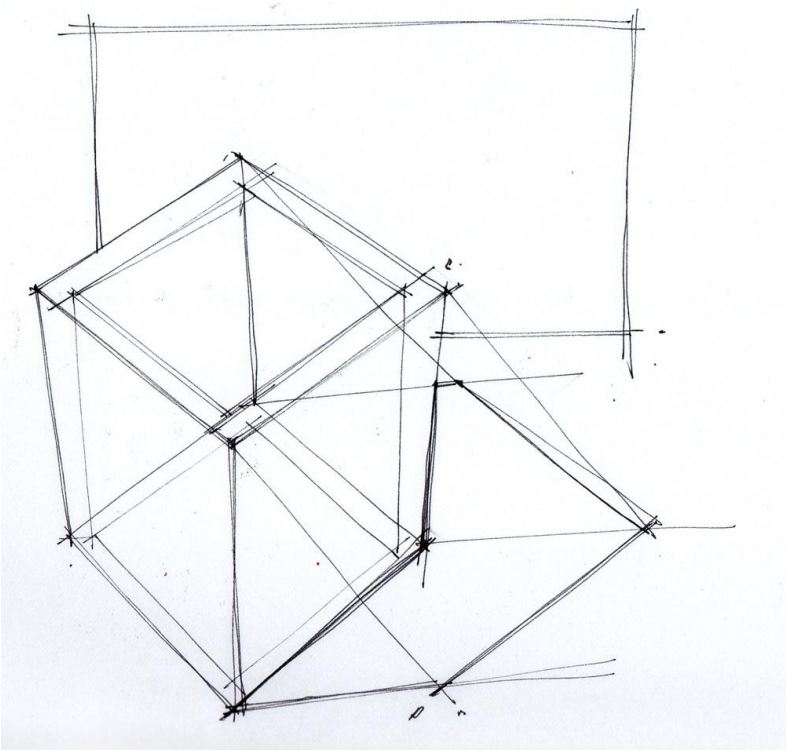
Betsy McCarthy, Ph.D.
Sara Atienza
Danielle Yumol
Matt Silberglitt
Linlin Li, Ph.D.
Katherine Kuhns, Ph.D.

“a very popular control tactic was to simply limit the time a child could spend on the device”

"as long as their child was playing with what they deemed to be an educational app s/he could stay on the device for longer periods."

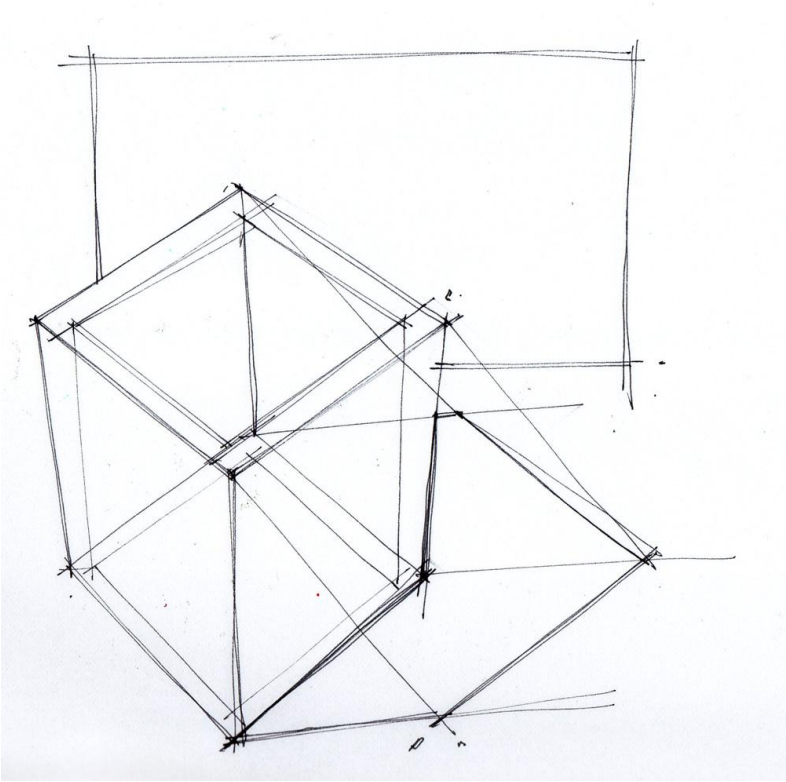
What makes a great kids app

- **C**
- **U**
- **B**
- **E**
- **D**…



What makes a great kids app

- **C**reativity
- **U**nderstanding
- **B**randing
- **E**motion
- **D**…



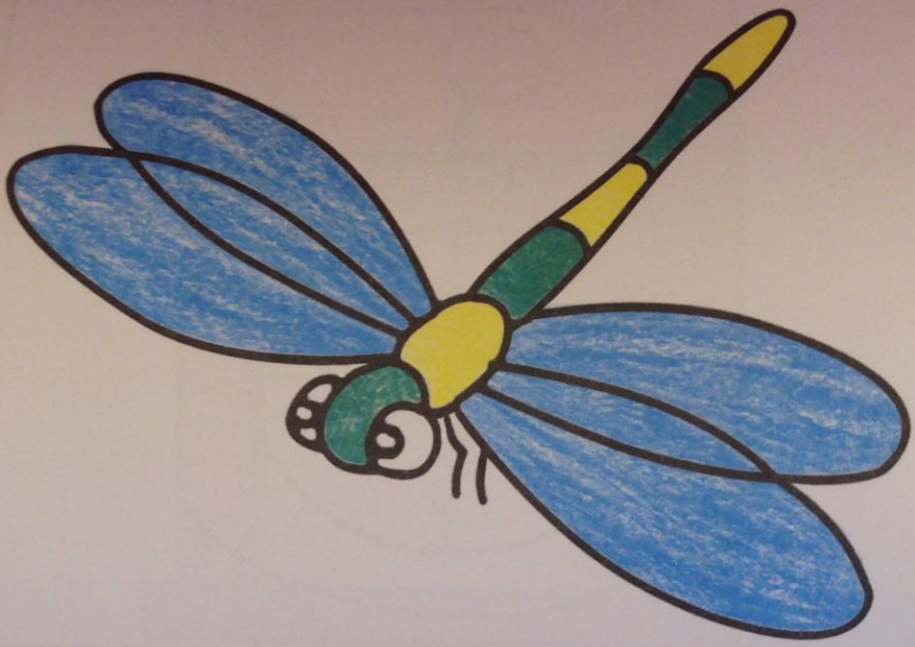
C

巨 嘴 鸟

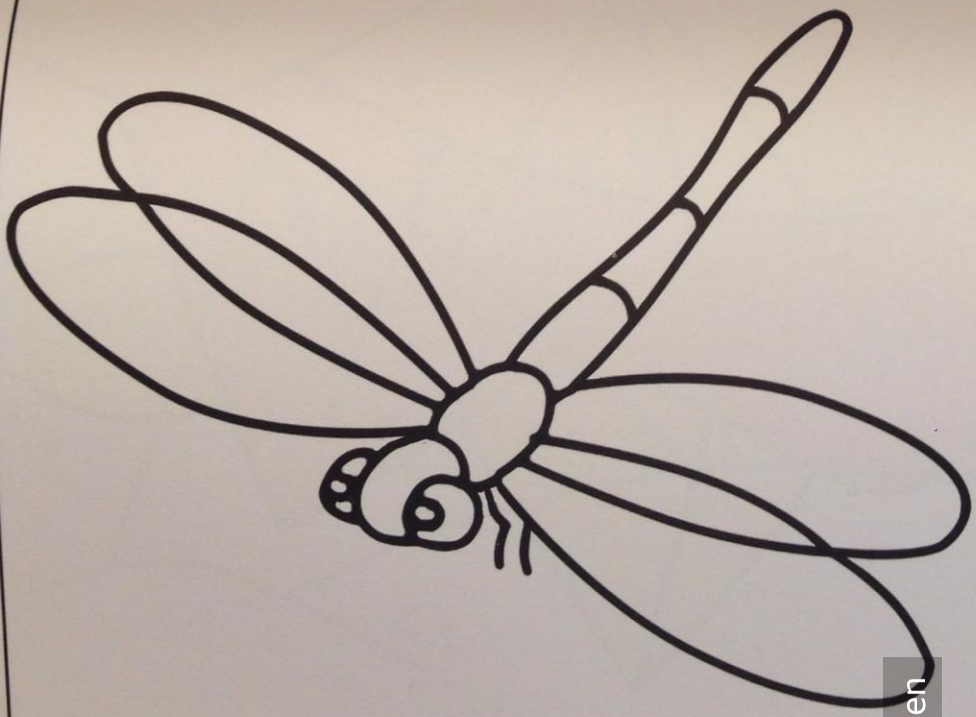
John Pasden

qīng tíng

蜻蜓



涂色提示：涂色时，注意蜻蜓的身体要分成一个部分一个部分地涂。



学生姓名：_____　　家长评分：_____

John Pasden

“涂色提示：涂色时，注意蜻蜓的身体要分成一个部分一个部分地涂。”

“Coloring reminder: When coloring, be sure to use different colors for the different parts of the dragonfly’s body.”

John Pasden

Storybook
Guided Play
Sandbox

U

Royal
ER Mail

A+B
DANGER

B

“Always think about more than one app with every single idea that you're doing”

James Huggins - Made in Me

Halloween

Toca Love

Toca Monsters

Toca Band

Toca Doctor

Hair Salon 2

Toca Train

Toca Builders

Toca Cars

Toca House

Toca Store

Toca Tailor

Fairy Tales

REIGN
GAMES

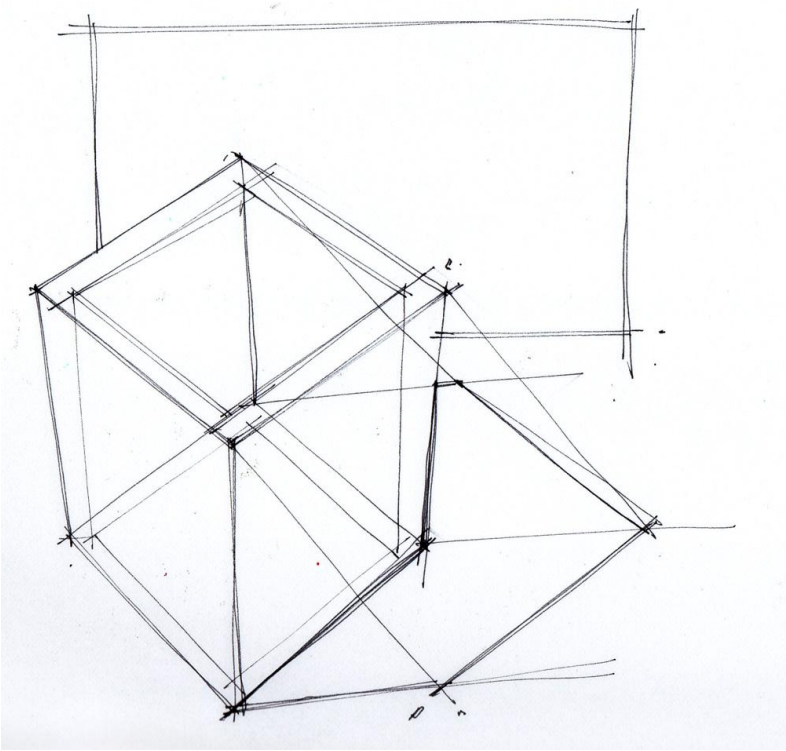
E

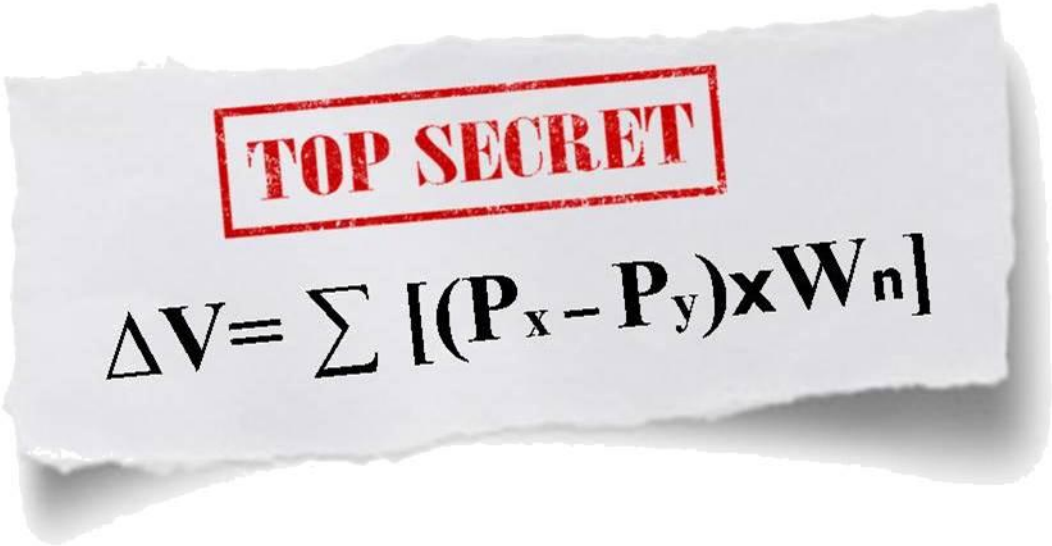
Happy
Scared
Sad
Lonely
Mad
Frustrated
Nervous

D

What makes a great kids app

- **C**reativity
- **U**nderstanding
- **B**randing
- **E**motion
- **D**umb Luck




TOP SECRET
$\Delta V = \sum [(P_x - P_y) \times W_n]$

Survivorship bias

倖存者偏差

LV857

Questions?