



Ideation for mind expansion

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I don't have to teach you, just
remind you.

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Average 5 year old: 23 Questions/hour

Questions are starting points for ideas.



Redefining Genius

- **3 – 5** **98%**
- **8 – 10** **32%**
- **13 – 15** **10%**
- **25+** **2%**

“If you are not prepared to be wrong, you will never come up with anything original”

Being wrong is a capacity that kids have but most adults have lost

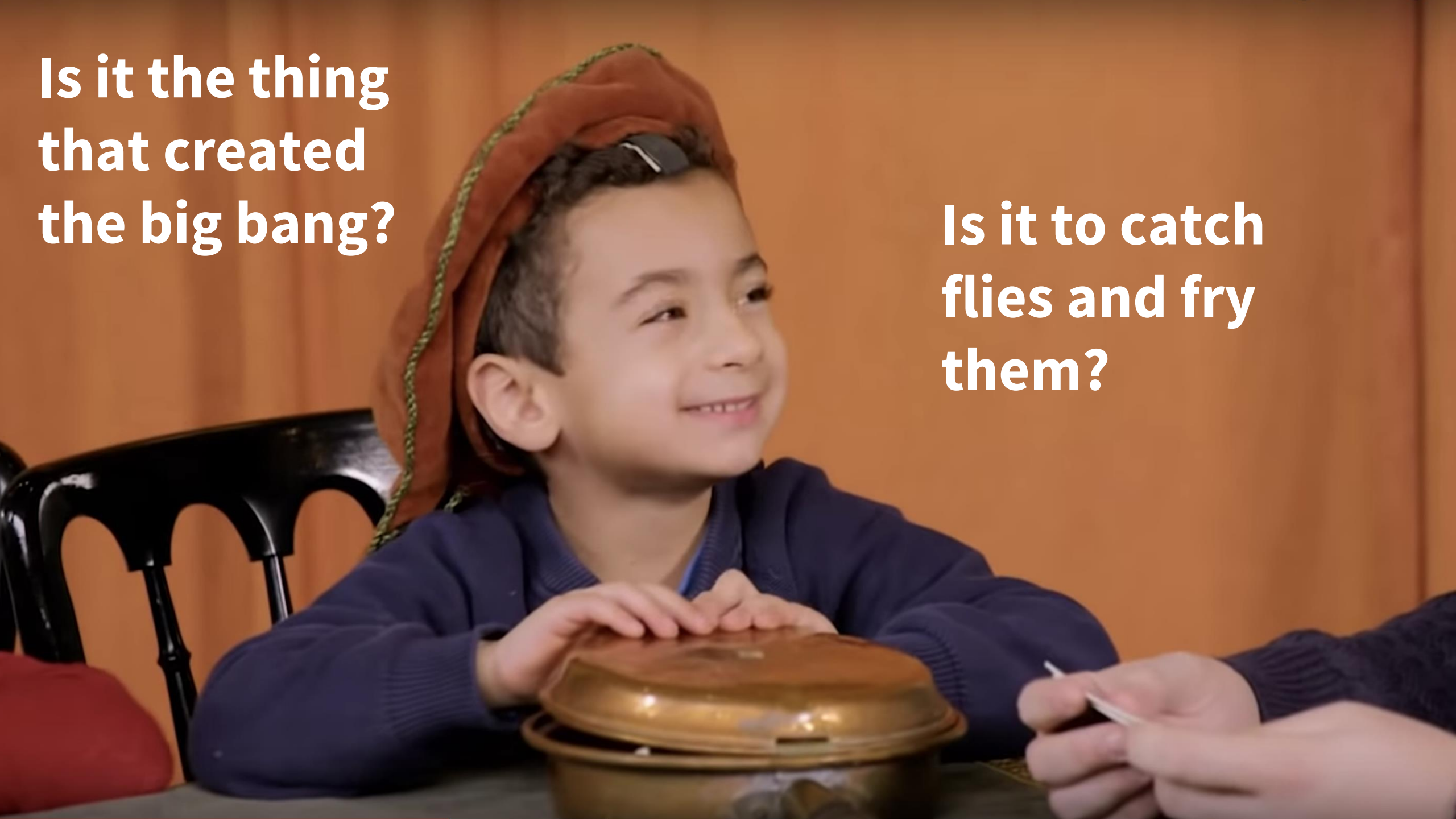
- Sir Ken Robins

https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity?language=en#t-340712



**Is it the thing
that created
the big bang?**

**Is it to catch
flies and fry
them?**



School:

"Get to the right answer as fast as possible... without being wrong."

... but that's **not how ideation works.**

- No right answer, just a cloud of possibilities
- Efficiency... 10+ first ideas are very similar. iFridge for food waste? Takes **time and perseverance** to get off the beaten path. (...showers, walks...)
- Limiting to only **SMART** ideas
(...stepping stones to unknown realms of imagination)



**Contact with
the real world**

**Millions of
units sold
in US**



<https://www.youtube.com/watch?v=rFM80-Zxxqc>

Ideation checklist

Are you prepared to..

Be wrong?

Make mistakes?

Not to be smart?

Warmup: Abductive reasoning

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Deductive:

All ravens are black. \rightarrow This bird is a raven so it must be black.

Inductive:

This bird is black and it's a raven. \rightarrow All ravens are black?

Olbers' Paradox: Why is the night sky dark?

<https://www.youtube.com/watch?v=gxJ4M7tyLRE>

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“Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution.

It is, strictly speaking, a real factor in scientific research.”

— Albert Einstein





Warmup: Abductive reasoning

- Riddles
- 20 questions
- Question conversation

I get whiter the dirtier I get. What
am I?

What has 13 hearts but no organs?

Swiss deck

Bells <i>Schellen</i>	Shields <i>Schilten</i>	Roses <i>Rosen</i>	Acorns <i>Eicheln</i>
			

https://en.wikipedia.org/wiki/Swiss_playing_cards

What can you catch but not throw?

Why is six afraid of seven?

What is greater than God,
more evil than the devil,
the poor have it,
the rich need it,
and if you eat it, you'll die?

20 questions game

Zoom in & Eliminate

(without post-its ;)

Zoom in

How might we...?



Fix marker cap

"...improve the learning of geometry for 8-year-old Romanian girls by using pink color schemes in a smartphone app."

WHY? →

Middle ... Empower the teachers in Barcelona to explore digital learning experiences.

//

... Make the learning experience of mathematical concepts more intuitive.

"...create free education for everyone."

← HOW?



Fix the world



How might we...?

Discuss and write down

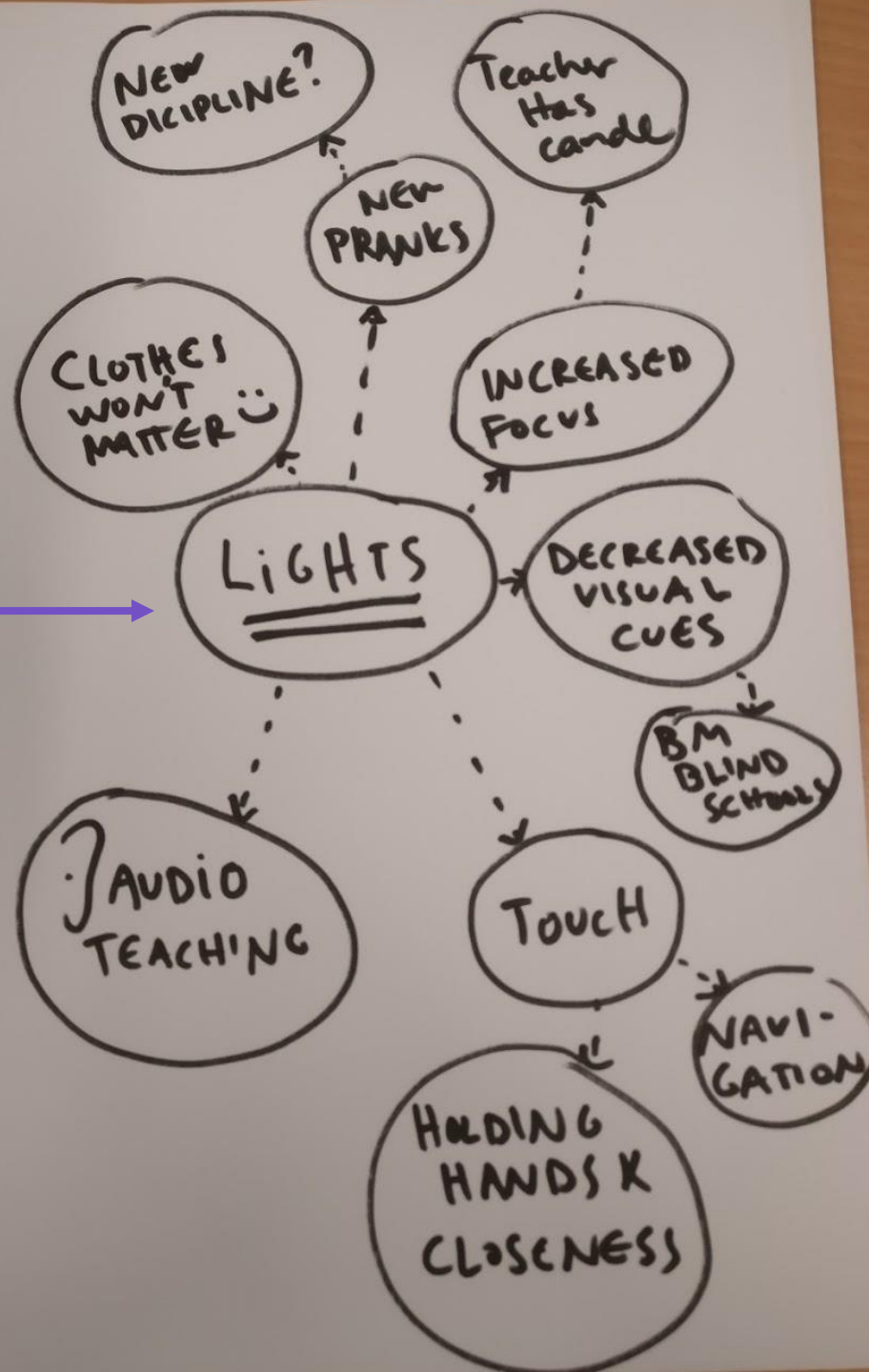
Eliminate

“You never change things by fighting the existing reality.

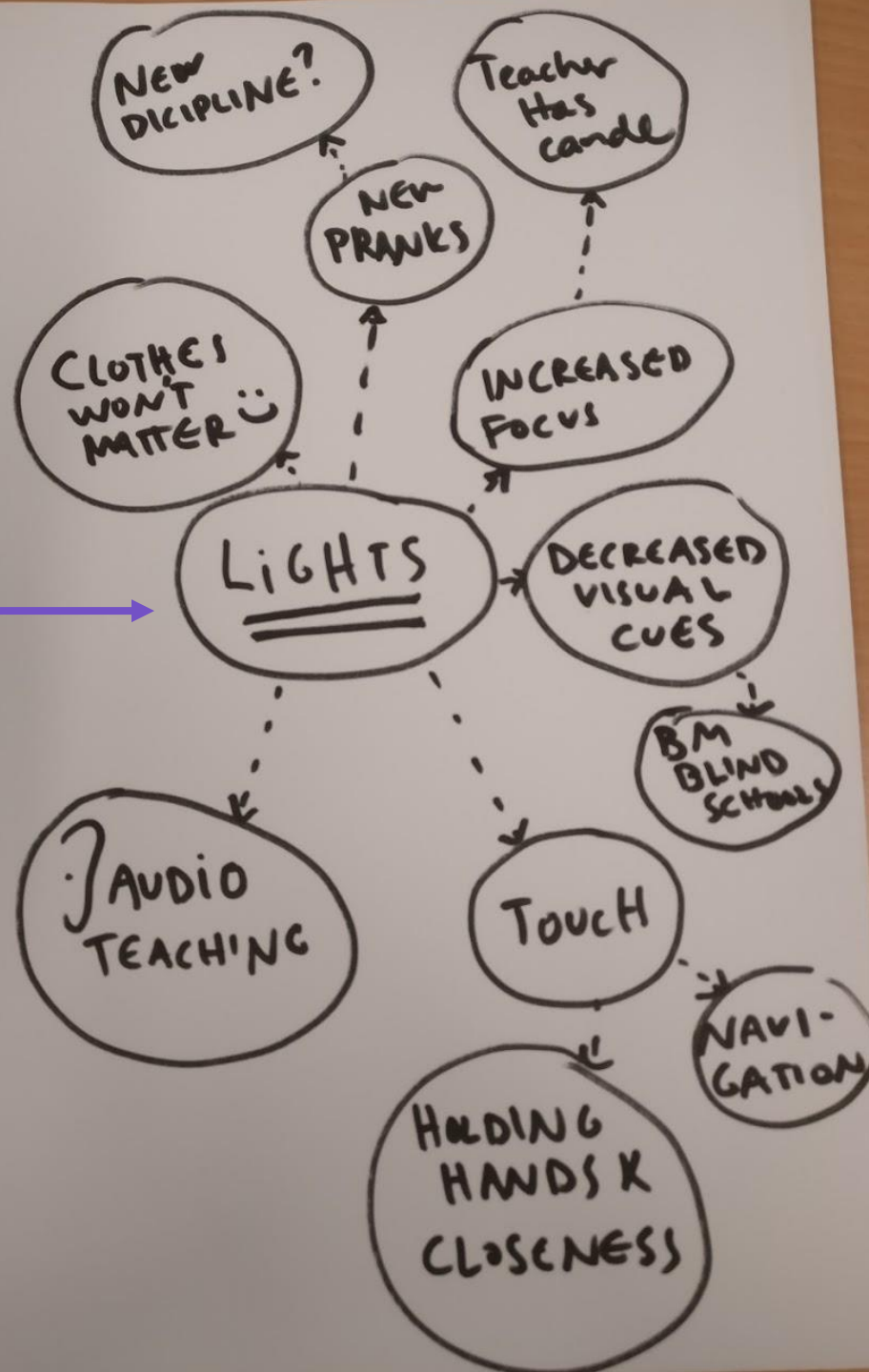
To change something, build a new model that makes the existing model obsolete.”

— Buckminster Fuller

Element to
eliminate



Element to
eliminate



Create

3-5 elimination
sheets

Individually

Share

with the group

- Discuss
- Develop
- Correlate

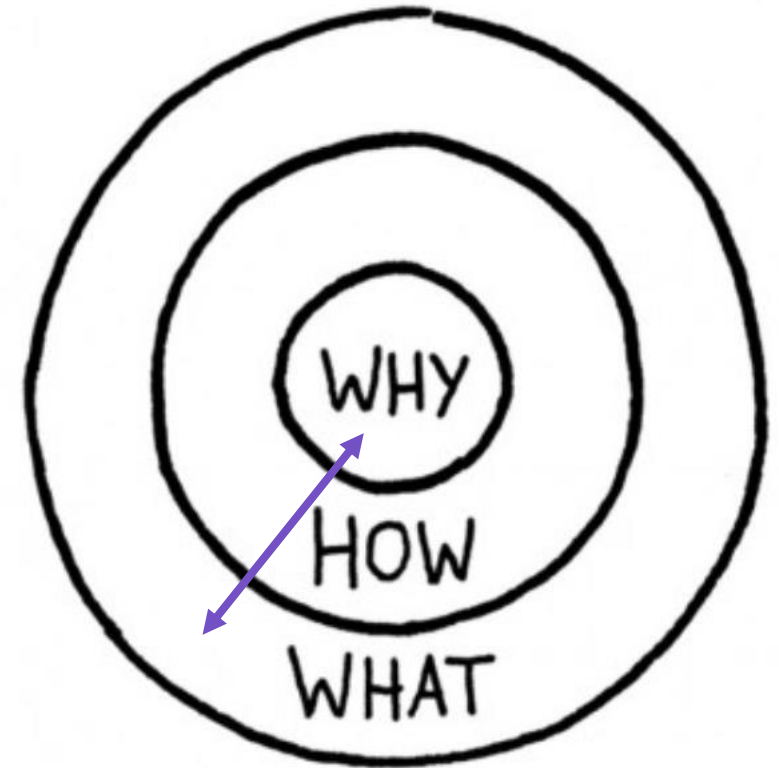
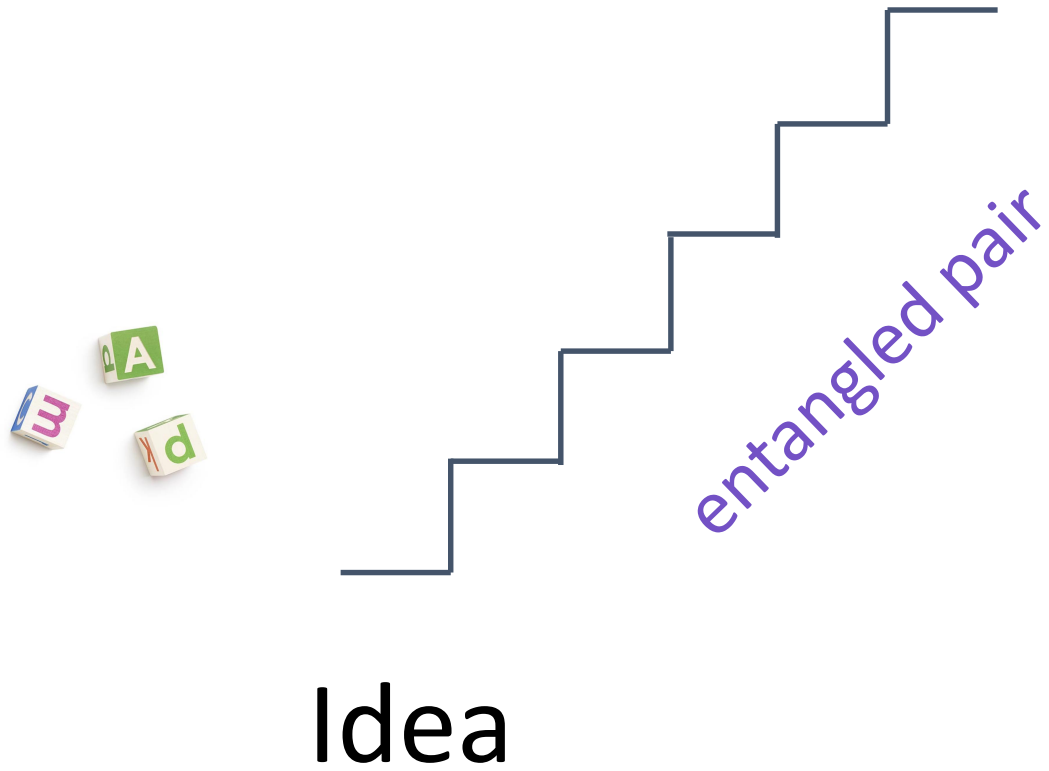
Bring

favorite idea here



Alphabet
launched your
exact idea 2
hours ago.

Vision



Vision

Develop 3 ideas
for different
stages



Idea