

2 Learning to learn

Learning objectives	Resources
<ul style="list-style-type: none"> To reflect on reading and how it helps us as learners To justify opinions using a text 	<ul style="list-style-type: none"> The book <i>Calvin Can't Fly</i> by Jenifer Berne Bag containing animals that represent the different learning powers Speech bubbles Lollipop sticks with children's names on them
Learning powers	Lesson summary
<ul style="list-style-type: none"> Being resilient Co-operative learning Continuously improving Being creative 	<p>This lesson uses <i>Calvin Can't Fly</i> by Jennifer Berne to explore the learning powers and how the different characters use them. It also explores the value of being a learner and how we can encourage others to keep trying in order to learn.</p>

Lesson

If the children are familiar with the characters that represent the different learning powers you will need to revisit them briefly at the start of the lesson. If they are unfamiliar, it would be beneficial to share their story prior to beginning this lesson. As a visual prompt it might be useful to share the Learning Jungle image.

- 1 Introduce the book *Calvin Can't Fly* by Jennifer Berne and then read until page 4 and ask the children to think about:

How are the different birds behaving?

Which learning power are they using?

Allow them some time to discuss the questions with their talk partner and then use named lollipop sticks to randomly select children to respond.

- 2 Continue reading the book until page 10 and end with the line:
'Calvin buried his beak in a book. And then his mind soared.'

Ask the children:

What do you think this means?

Explain that there are no right or wrong answers and that you are just interested in their opinions. Ask the children to discuss their ideas with their talk partner and then take feedback.

- 3 Develop the children's thinking further by asking:
What happens to your brain when you read a book?
Then focus upon Calvin and ask them to discuss:
Why does Calvin want to read a book?



**How does he feel when the other birds are learning to fly?
Is he going to stop reading?**

Again, randomly select the children to share their ideas and thoughts.

Main activity: What would you say?

- 4 Explain to the children that you want them to think about what they would say to Calvin to ensure that he keeps reading. Tell them that you want them to encourage Calvin to be like Albert the armadillo and be resilient:

What would you say to Calvin to encourage him to keep reading?

Allow the children some talk time with their partner to share their ideas. It might be appropriate to model a good and bad example of what to say, so that they are clear about what they are expected to do. Take some of the children's ideas and use them as positive examples and share an unsuccessful one as yours. Once the discussions are complete, select some children to feed back.

- 5 Following the discussion you could ask the children to record their ideas on a speech bubble, which could be used as part of a display.

Bringing it together – what have we learned?

Continue to read aloud until page 16, and then ask the children to reflect:

Is Calvin being resilient?

Ask the children to respond by a show of hands and then probe their thinking further by asking them to explain why, to justify their opinions.

Continue reading the story until the end and then ask them to think about the whole book. Pose the following questions:

How did Calvin know about hurricanes?

In the story, what would have happened if Calvin hadn't been resilient?

Allow the children some talk time and explain that there are no right or wrong answers, and that you are just interested in their opinions. Then randomly select children to share their ideas.

Challenge

Ask the children to think about how Calvin uses the different learning powers in the story and how they help him develop as a learner.

Further developments

- Create a display of the children's ideas about what they can say to Calvin to encourage him to keep on reading.
- Use the Learning Jungle image as a prompt during lessons to remind them of the behaviours for effective learning.

Children's responses

'Calvin buried his beak in a book. And then his mind soared.' What do you think this means?

- ‘You're reading in a magical way, not looking at the pictures, using your mind and imagination.’
- ‘I think it means he is thinking.’
- ‘He's amazed.’
- ‘He wants someone to read.’
- ‘He is looking at the pictures and using his imagination at the same time.’
- ‘His mind is blown. Maybe he wants an adventure like the one he is reading.’

What happens to your brain when you read a book?

- ‘You get more brain power.’
- ‘You see what's happening.’
- ‘Sometimes it makes you feel happy or sad.’

Why does Calvin want to read a book?

- ‘Because he wants to exercise his brain.’
- ‘Because he likes books.’
- ‘He might have wanted to read that book.’
- ‘Because he can't fly.’

How does he feel when the other birds were learning to fly?

- ‘Sad. They are being mean.’
- ‘Sad, because he was called a worm.’
- ‘He didn't like the names.’

Is he going to stop reading?

- ‘No, because he wants more brainpower.’
- ‘It's his favourite thing to do so no.’

What would you say to Calvin to encourage him to keep reading?

- ‘Just ignore them and keep on reading.’
- ‘Don't give up, keep trying and do the opposite of what they say.’
- ‘Just try hard with your reading.’
- ‘Do not stop yourself, reading is good for you.’
- ‘Just ignore them and practise more.’
- ‘Do not stop yourself reading, it is a good thing to do.’
- ‘Don't give up, keep trying. Do your best.’
- ‘Reading makes your brain grow. Keep reading.’

How does Calvin know about hurricanes?

- ‘He knew about hurricanes as he read a book.’

What would happen in the story if Calvin hadn't been resilient?

- ‘They wouldn't have been safe, as he wouldn't have read about it.’
- ‘He wouldn't have learned how to fly.’

3 Marvellous mistakes

Learning objectives	Resources
<ul style="list-style-type: none"> ● To identify different types of mistakes ● To explain how mistakes can help us as part of the learning process 	<ul style="list-style-type: none"> ● Information about mistakes ● Examples of mistakes ● Paper ● Learning Jungle summary sheet
Learning powers	Lesson summary
<ul style="list-style-type: none"> ● Being resilient ● Co-operative learning ● Continuously improving 	<p>This lesson focuses on the role of mistakes in our learning. It develops awareness of the different types of mistakes that we can make and how we should respond.</p>

Lesson

Arrange the children so they are sitting with their talk partner and are able to clearly see the board. Begin by recapping the different animals and their learning powers. You could display these in the classroom as visual prompts, or provide the children with the summary sheet for them to read.

- 1 Reveal the word 'mistakes' on the board and ask the children to discuss with their talk partner what it means. Explain to the children that there are no right or wrong answers and that you are just interested in their opinions. Once the discussions are underway you can extend them further by revealing these question prompts to focus their thinking:

How do you feel when you make a mistake?

Is there a subject that you think you make more mistakes in?

How do you respond when you make a mistake?

Take feedback by randomly selecting some children. Probe their thinking further by asking why and encouraging them to justify their opinions.

Develop this further by asking the children:

Which learning powers can help us when we make a mistake? How?

Again, allow the children some talk time before randomly selecting them to share their ideas.

Mistakes, mistakes

2 Share the information about different mistakes:

Types of mistakes	
Active mistake	The calculation goes wrong because an incorrect approach is used
Slip-up	The correct process is chosen, but there are errors in the execution of it (e.g. paragraphs lack detail, maths calculation works to a point and then breaks down)
Blackout	Information needed to complete the challenge is either missing or forgotten

Explain that Professor James Reason identified these categories of mistake (Reason, J. 2013) in a book called *A Life in Error: From Little Slips to Big Disasters*.

Ask the children to think about:

Do you have any thoughts about these types of mistakes?

Do you think you make any of these types of mistakes?

Allow the children some time to think and then randomly select them to share their experiences of the different types of mistakes.

Once you have taken feedback, ensure you reinforce the different types of mistakes that can be made. Then share a calculation containing a mistake, such as:

What is 27% of £180?

10% is £18

25% is £45 (20% is £36 and 5% is £9)

1% is £1.80

The answer is £46.80

Ask the children to reflect on the calculation and discuss with their talk partner:

If they have made a mistake, what type of mistake is it?

Why do you think that has happened?

Ask the children to share their opinions before presenting another calculation. It would be useful to select calculations and errors that reflect the children's learning and encourage them to identify mistakes that they make.

Fred has £180, which is $\frac{2}{5}$ of his money.

How much money does Fred have?

£180 divided by 5 is £36

£36 × 2 = £72 altogether

Again, ask the children to reflect on the calculation and discuss with their talk partner:

If this person has made a mistake, what type of mistake is it?

Why do you think it has happened?

Ensure that you listen carefully to the discussions, as they will demonstrate a lot about both the children's learning and their reasoning in maths. Once the discussions have drawn to a close ask them to indicate they are ready by folding their arms. This provides the children with some control over how long they need to talk for, rather than a teacher disturbing their discussions. Then take feedback.

Bringing it together – what have we learned?

Develop the discussions further by asking the children to reflect on mistakes in general. Ask them:

Are there any other types of mistakes that we make?

Select some children to share their ideas about different types of mistakes. After they have shared their ideas, ask the children to reflect on:

Which learning powers have you been using today?

What were the challenges that you faced?

Challenge

Ask the children to think of a mistake that they made and reflect upon:

Why did you make that mistake?

Which learning powers could you use to help you?

Further developments

- The children could categorise mistakes in different subjects using the three key types and also the children's own categories.
- Ask the children to create/collect mistakes for the different categories.

Downloadable resources

Learning Jungle summary sheet

Reflections about different mistakes video clip

Mistakes used for avoidance video clip

Visit bit.ly/2KY9eJl
to download resources

Children's responses

What does the word 'mistake' mean?

“There are different types, such as accidental.”

“Lots of mistakes are useful, as you can learn from them. Say in a test you make a mistake then you can make sure you learn it and then you get it right next time.”

“It could be a mistake made by accident or on purpose. As you might record something that you think is right but you're wrong. (That's a purpose mistake).”

“You might use the wrong calculation strategy and be wrong.”

“Mistakes can be good as you learn from them and come back to them, but they are also bad. If you keep on doing more

and more mistakes it could affect you.

It's a bit philosophical; are mistakes good or are they bad?”

“You can have real-life mistakes; say a friendship mistake when you say something that upsets a friend by accident. You didn't mean to but you do. So, you have to apologise.”

“The dictionary would say mistakes are when you do things wrong.”

“Before we learned about growth mindsets we thought all mistakes were negative, but now we see them as a positive part of the learning process.”

“To avoid mistakes you need to check twice.”

How do you feel when you make a mistake?

‘It depends on the type of mistake. If it is a small mistake I kinda brush it aside. If it’s a bigger mistake I think about it. However, sometimes I brush those aside and I shouldn’t.’

How do you respond when you make a mistake? Is there a subject that you make more mistakes in?

‘English - I find that harder than other subjects. I need to practise my grammar more and concentrate. I need to be more self-aware when I am not concentrating.’

‘In your daily life it is easier to make mistakes as your mind is doing lots of things, it controls what you do, say, write so it isn’t just in a subject.’

‘Maths – I make a lot of mistakes in maths.’

Which of our learning powers help us when we make mistakes?

‘You need to concentrate and see where you have gone wrong.’

‘You need to be resilient as well. Use your growth mindset and learn from it.’

‘To be curious, as I need to ask about my mistakes and find out where I went wrong.’

Any thoughts about these types of mistakes? Are there any of these different types of mistakes that you think you are making?

‘Blackout – in maths, I can be messy with my presentation and I will have done all of the working but it won’t be easy for others to read.’

‘Slip-ups – if I am rushing in maths I make slip-ups.’

‘I make blackout mistakes, as sometimes in tests I don’t do what the question asks, so I only ticked one thing not two. I rush and don’t read the question.’

‘Sometimes I work sums out correctly but then write the number wrong. That’s a blackout mistake.’

Mistake 1 – if they have made a mistake, what type of mistake is it? Why do you think that has happened?

‘They only find 26% not 27%.’

‘They forget to times the one per cent by two to find the correct percentage.’

Mistake 2 – if they have made a mistake, what type of mistake is it? Why do you think that has happened?

‘It is wrong because 36×2 is 72 and that is less than $\frac{2}{5}$ and one whole can’t be less than $\frac{2}{5}$.’

‘The error has been made because they’ve read the question wrong as they have tried to find $\frac{2}{5}$ and that isn’t what the question asked.’

Are there any other types of mistakes that we make?

Purposeful mistakes

‘You may do a mistake on purpose because you don’t want to do something.’

Misread mistake

‘Where you don’t read the question carefully so your calculation is right but it doesn’t answer the question.’

Regretful mistake

‘Something that you deeply regret.’

Living mistake

‘A mistake that occurs in real life.’

The block mistake

‘When you are mid-way through a calculation and you are doing OK and then you get a mental block and either can’t do it or your calculation ends up wrong. It could happen when you are tired.’

‘When you think you know what you are doing so you do it. You think you are right but you are wrong.’

1 An egg of an idea

Learning objectives	Resources
<ul style="list-style-type: none"> • To identify what helps an idea to grow and develop • To listen to different opinions 	<ul style="list-style-type: none"> • <i>What do you do with an Idea?</i> by Kobi Yamada • Paper • Egg idea sheet • Learning Jungle summary sheet • Lollipop sticks with children's names on them • Visualiser or document camera (optional)
Learning powers	Lesson summary
<ul style="list-style-type: none"> • Continuously improving • Co-operative learning • Being curious • Self-improvement • Being creative • Being resilient • Reflection 	<p>This lesson explores the importance of being resilient when creating new ideas and learning.</p>

Lesson

Arrange the children so they are sitting with their talk partner and are able to clearly see the board. Prior to starting the lesson, explain to the children that they should be thinking, talking and listening to each other during the session. Explain that there are no right or wrong answers and that it is important that they listen to the different opinions.

- 1 Begin by recapping the different animals and their learning powers. You could display these in the classroom as visual prompts, or provide the children with the summary sheet for them to read. Then ask them to reflect:

Which learning power do you think is the most challenging?

Introduce the book *What do you do with an Idea?* by Kobi Yamada. This is a delightful story that represents the concept of an idea using the image of an egg. It takes the egg on a journey to grow and develop and blossom.

Read the story until page 14 and then ask the children to discuss with their talk partner:

Why do you think the author has used the image of an egg to represent an idea?

Ask the children to feed back (select them to contribute at random, using named lollipop sticks).

Develop this further by asking them to think about:

If the egg represents an idea, why did the author describe the idea/egg as fragile?

How are ideas 'fragile'?

Prior to starting the discussion, you might need to check that the children understand what the word 'fragile' means.

Continue to read the story until page 18. Ask:

Why do you think the people were unkind about the boy's idea?

How do you think that made him feel?

What would you do if someone ridiculed or criticised your idea?

Which learning powers would help him?

Then focus the children's discussion on:

What do you think an idea needs to grow and develop?

What questions could you ask of your idea? (For example, how can I improve it?)

- 2 Create a list of factors that the children suggest will help an idea to grow. These can then be incorporated into a whole-class display later.

The journey of an idea

- 3 Explore with the children the image of an egg to represent an idea. Share with them an example of a journey an idea might go through in order to develop. Share examples of successful and unsuccessful ideas. Explain to the children that they are going to create their own journey for an idea they have had, either successful or unsuccessful.

Explain that they can choose how they wish to record their journey, through writing, drawing, creating a diagram or something similar. It might be appropriate to share some of the examples of children's responses from the book, if you feel that they would benefit from the scaffolding.

Ask the children to think about:

What helps to improve an idea?

How should you behave if you have an idea?

What can stop your idea from growing?

How can the learning powers help an idea to grow?

Can you think of words that could describe the journey of an idea?

Bringing it together – what have we learned?

Share some of the examples of the children's journeys of an idea using the visualiser/document camera. Encourage the children to describe the process they have gone through.

Ask for reflection:

What did you know at the start of this journey?

What did you know by the end of the journey of an idea?

What did you learn through this process of developing an idea?



Challenge

Ask the children to think about what other images could be used to represent an idea and why.

Further developments

- Use the image of an egg as a template/stimulus for a planning format for children to design and create inside of. This will reinforce the concept of how we can grow our ideas and learning.
- Create a class display of the process that you go through to grow and develop ideas that are both successful and unsuccessful.
- Provide the children with a book to use as an ideas journal to collect their ideas in, and then allow them time to reflect upon these ideas. To focus the children's thinking use questions, such as:

What do you like about your idea?

Is there anything that you would change about this idea?

Has it led you to think of anything else?

Downloadable resources

Learning Jungle summary sheet

Representing abstract ideas video clip

Accepting criticism video clip

Challenges and solutions video clip

Visit bit.ly/2KY9eJI
to download resources

Children's responses

Which learning power do you think is the most challenging?

- “Being curious, as I don't like asking questions, I get embarrassed.”
- “Being curious, as you have to find out lots of things and research, which is quite challenging.”
- “Concentrating, because it is hard to ignore people when they are talking to you.”
- “Self-improving – you might think it is good enough or you can't always find the mistakes.”

Why do you think the author has used the image of an egg to represent an idea?

- “You know how a chicken pops out of an egg; it could be like an idea popping out

of an egg. As you don't have ideas all the time they just pop out.”

- “With the crown it could be the king of ideas.”
- “Every time he gets a new idea a speech bubble could pop out of the egg.”
- “The egg is used as when you hatch an egg a chicken comes out and if you hatch an egg you get an idea.”
- “An egg is similar to a head; it has lots of layers – the shell is similar to the skin and the yolk is like the brain.”
- “When it cracks the idea will come true.”
- “It could be a new idea, as when chickens hatch eggs it is the same as a new idea being born.”

If the egg represents an idea, why did the author describe the idea/egg as fragile?

- “As the egg is special.”
- “The inside of an egg is like a thought going round.”
- “If you have an idea and share it with someone they might try to change it or your opinion might change.”
- “It could be a bad idea so it's fragile. A good idea would be a heavy egg ‘hard boiled’.”
- “Ideas can be fragile – they could escape from the egg and be lost.”

Why do you think people were unkind about the boy's idea?

- “Because they thought it was weird and it was a waste of time.”
- “Because they might be jealous because they didn't think of an idea.”
- “They could be a bully.”
- “They might not be able to see the egg.”

How do you think that made him feel?

- “Left out.”
- “Embarrassed.”
- “Upset.”
- “Sad because they were mean about his idea and he thinks it's a good idea.”

Which learning powers would help him?

- “If you are resilient like Albert the armadillo you use your growth mindset and learn from your mistakes.”
- “If you are resilient you won't mind if people are cruel.”
- “If you want to continuously improve you will want to improve your idea.”
- “Kelly the koala – be curious and ask questions about why they don't like it. It would help you to make the idea better.”
- “Emily the elephant and concentrating, so you ignore the distractions.”

- “The monkeys – continuous improvement as they can help you make it better by giving feedback.”

What do you think happens if someone ridicules an idea?

- “You give up!”
- “Others might take the idea and pass it off as their own.”

What does an idea need to grow and develop?

- “You need to add things to it.”
- “A growth mindset does – as if you have a fixed mindset you'd give up and walk away. With a growth mindset you'd challenge yourself.”
- “Confidence in your own ideas.”
- “Be positive.”
- “Believe in yourself.”
- “You need to ask yourself questions – is this the best? How can I improve it?”

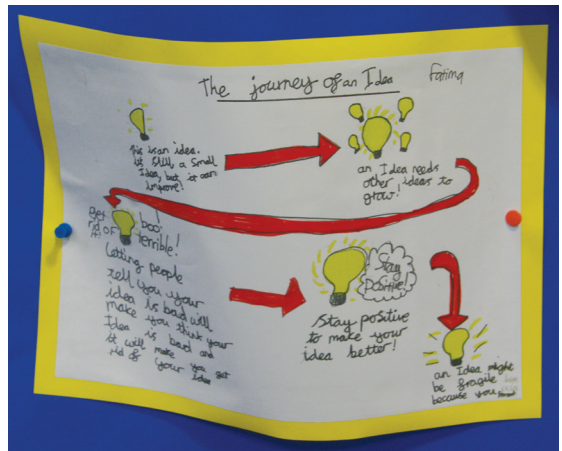
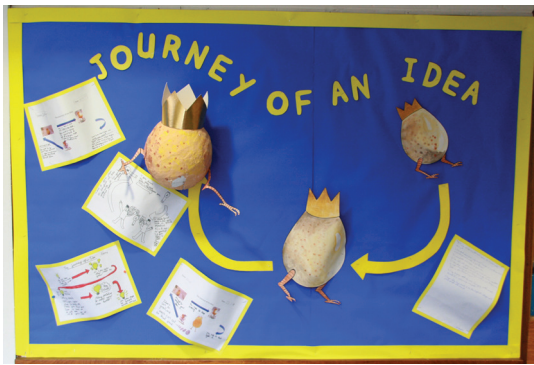
How can the learning powers help an idea to grow?

- “The learning powers are all needed for you to be good at learning.”
- “Kelly the koala helps you to grow your idea, as you are curious.”
- “Self-improving and working co-operatively will help to make the best idea as you are working together.”
- “At the start of an idea you need to ask lots of questions and be curious.”

What did you learn through this process of developing an idea?

- “You learn how to improve things.”
- “That you need to ask questions so you learn more things.”
- “I learned that you need to co-operate and listen to others to make the idea better.”
- “At each step you learn something new.”
- “It isn't easy to always continuously improve but you need to get feedback.”

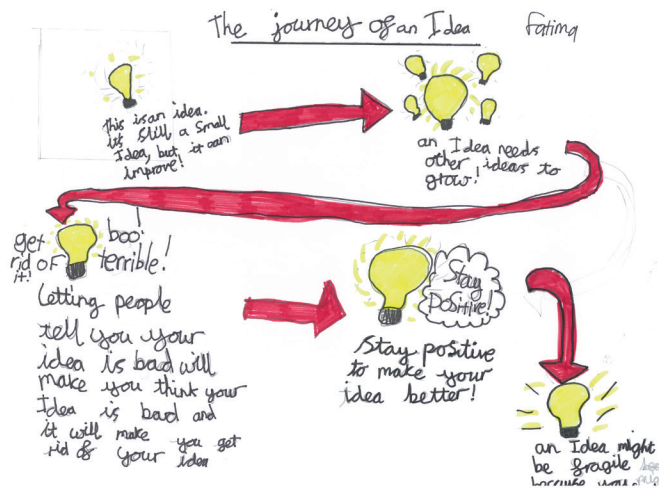




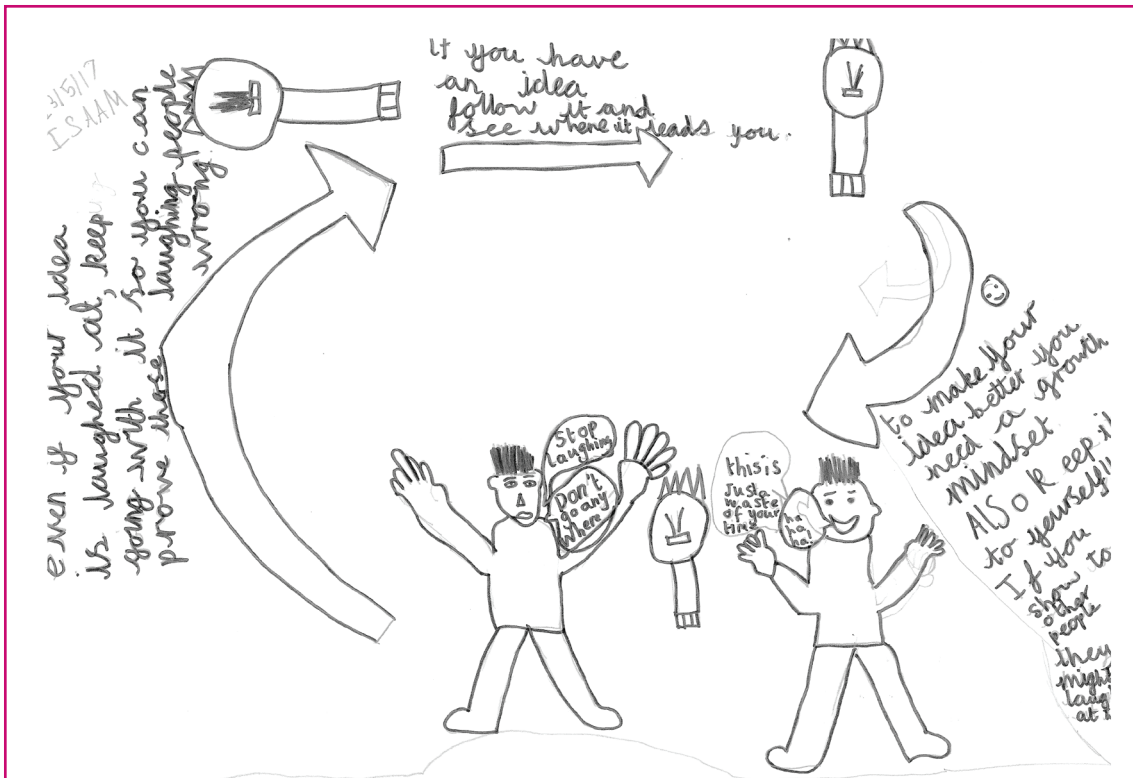
1. First an idea is in time and space, then it pops onto the Earth.
2. You think about it ~~so~~ really hard. Change a few things, take a few things and add a few things.
3. Concentrate and believe in your idea.
4. The idea will grow and be amazing as ever.
5. The idea ~~should~~ should be ready to be spoken, is not change a few things, add a few things and take a few things again.
6. Keep trying ~~and is~~ and changing until people think it's amazing as well.
7. Your idea has made it to the highest stage and most people will love it!

Christopher

The journey of an idea 1

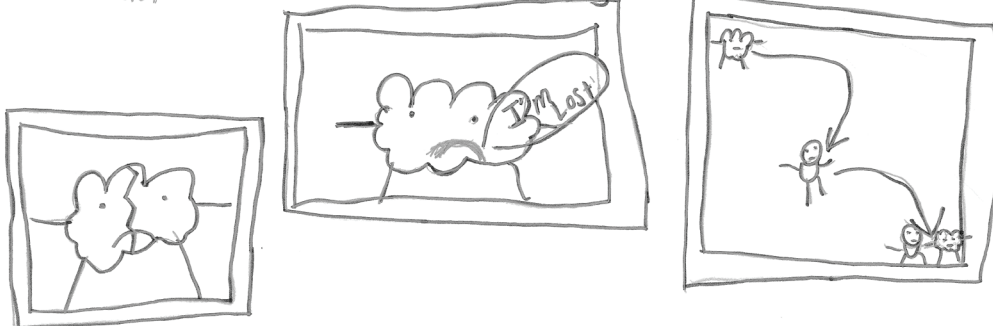


The journey of an idea 2



The journey of an idea 3

1. First an Idea is lost, then it gets found.
2. after that it gets expanded by ~~more people~~ ^{persuading and trying to grow a growth mindset}
3. if people say mean things about it then it is lost again if someone has an idea then it is found then someone finds it again and it goes around in a circle again.
5. Ideas often break because they are completely breakable.



The journey of an idea 4