Teachers Guide: Read the following paragraphs yourself prior to facilitating the discussion questions with children. This will enable you to ask the questions confidently and use them as tools to help children figure out what is going on in the story as well as what lessons they can learn from it. By asking questions and having children come up with answers, their learning experience will be more fun and more effective than if you were to simply give them all of the answers. If they are struggling to find strong answers, use the following paragraphs to help steer children in a more focused direction.

Story Summary

Neo and her Dad are inventors. They can solve ALMOST any problem...but they can't find Neo's cat! Neo looks everywhere, but her cat has vanished. Maybe it has something to do with her dad's latest invention? Join Neo as she sets out to bring her treasured companion back home.

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Reading the Story

Before reading the book, ask your child/children to look at the cover pictures and ask your child/children to think about what the book might be about. Once you start opening and reading it, you will see that the book doesn't have any words in it. Here are some helpful tips to guide you before, during, and after reading the story:

- If you have more than one child, try to sit in a position which enables all children to see pictures clearly and ensure every child gets a chance to share their ideas.
- Give them enough time to state what they think and feel.
- Spend time with each page and explain what is going on.
- > Ask questions about what is going on in each picture.
 - Give them ideas like, "What was Neo's facial expression when she saw that her cat is missing?", "What was that machine used for?" "How did Neo's behaviour change after she had been in the machine for the first time?"
- Once you have finished reading, ask children what they liked about the story and who their favourite character was and why.
- Ask some questions from the list below (choose questions that seem relevant for your child/group of children).
- Make sure that everybody gets a chance to ask and answer questions. Don't let the older, more confident, and/or louder children take over everything.



Discussion Topics and Questions

Comprehension Questions to ask children – These questions are designed to see how well children understood the story. If they don't remember the answers, they should look in the book to remind themselves, but you can help them if they are struggling:

- What tool does Neo use to look for the cat footprints?
- In the first scene of the book, what is Neo working on? What is the goldfish working on? What is Neo's dad working on?
- When is the first time we see the cat? (Hint: Neo is still big and we only see the tail and it is very small)
- > When is the first time that we see the millipede?
- > Did you see the spring-boots and helicopter-hat from <u>Springloaded</u>? Where were they?
- How many times does the purple butterfly appear in the book? (why are different sizes on different pages)
- Where did Neo's cat go?
- What was Neo's Dad's latest invention?
- How does Neo feel when her cat goes missing?

Discussion Questions to ask children – These questions are designed to help children think critically about the story and formulate their own individual ideas and opinions. You don't have to ask your children all of them, as these are merely suggestions. You can also come up with your own questions if you like!

- ➢ Why does Neo go and look for her cat? What can this teach us about friendship and responsibility?
- What does Neo do to find her cat?
- Where does Neo eventually find her cat?
- Why does Neo shrink herself?
- > When Neo is small, the garden is a much scarier place. Why?
- If you went through a shrinking machine and went into your garden, what scary things do you think you would see?
- > Why is Neo's Dad surprised when he sees the big car at the end of the story?
- > What are the dangers involved in having a shrinking machine around your house?
- > Name the different colours in the book and associate them with different natural objects.
- > Explain the difference between tricks, magic, illusions and science.
- Arthur C. Clark famously said: "any sufficiently advanced technology is indistinguishable from magic". Do you agree with him? Would people alive a hundred years ago think a cell phone is magic?
- > Do you have a pet? If not, and if you could have one, what could it be? Why?
- If you could have any pet in the world what pet would it be? Why?
- Identify the different emotions that Neo feels at different times in the story. For example, when she realizes that her cat is missing how does Neo feel? How about when she is small and sees the millipede?



Activity 1: Creating Levels of Zoom

Resources:

- A Piece of Paper
- Pencil
- Crayons

Activity: Depending on the ages of the children, choose the appropriate activity for them from the list below.

- Ages 3-7: Ask children to think of their favourite pet/animal. Help them to understand how those animals see things differently. Ask them to choose any animal of their choice and to pretend to be that animal. Have them act out its behaviour and how it sees different things. For example, an ant sees a cat much bigger than they really are because ants are tiny insects, whereas a person considers a cat to be small. Encourage children to come up with their own zoom activity using anything relevant to them. Help them out if they seem to be struggling but don't do it for them.
- Ages 8-9: Ask children to zoom out three pictures from one object (e.g. egg in the nest, nest in the branch, branch in the tree, etc.). Then, ask them to draw three columns on a piece of paper and then draw each part of the sequence in each column. Children should come up with their own sequences. Encourage children to come up with their own zoom activity using anything relevant to them. Help them out if they seem struggling but don't do it for them.
- Age 10-12: Ask children to get an A4 paper and divide it into four equal sections. On each column, ask children to zoom out four pictures from one object (e.g. start with an egg, then egg in a nest, then egg in a nest on a branch, finally branch on a tree). Children can come up with their own sequences. Encourage the children to come up with their own zoom activity using anything relevant to them. Help them out if they seem struggling but don't do it for them.

Activity 2: Make Your Own 3-D Cat

- Resources:
 - Tissue-roll
 - A pair of scissor
 - Piece of paper
 - Glue/clear sellotape
 - Paint (different colours)
 - Paintbrush

Activity: Give children the materials to start making their cats. Help the children to go through the steps (make sure to supervise them while the kids are using scissors). Ask them to name their cats and help them to display their work in a safe place in the house. Encourage the child/children to be as creative as possible/as they would like to. Praise their effort and hard work.

Activity 3: What's Missing

- Resources:
 - A copy of the "What's Missing?" activity
 - Pencils
 - Crayons
 - Eraser



Activity: Give the children the "What's Missing?" page. Let them figure out what's missing by comparing the page to the one in the book and then draw it. Once done, they can colour in the page.

Activity 4: Draw Your Pet's Portrait

- **Resources**:
 - Piece of paper
 - Pencil
 - Eraser
 - Crayons

Activity: Ask children to think of their favourite animal/pet. Discuss what makes their favourite animals so special to them and why. Allow them time to finish drawing their animals and then have them present their work. If a child doesn't have a favourite animal, encourage him/her to come up with an imaginary one, and give it a name.

Activity 5: Can You Remember the Order of the Pictures?

- **Resources**:
 - Sequencing Worksheet
 - Colouring Pencils
 - Scissors

Activity: Give children a copy of the sequencing worksheet and have them colour in each scene. Once they are done colouring, they can cut the cards out, mix them up and then try to put them back in the correct order. Once kids have completed their sequences, have children check the book to see if they got everything right or if they need to move some things around.

Activity 6: Water Displacement Experiment

- Resources
 - Rocks and stones of different sizes
 - An old cooking oil bottle or 2L bottle
 - Water
 - A knife

Activity: In this experiment, children will learn that rocks displace water by taking up space and forcing the water out. Because the rocks are denser than the water, they sink and push the water up.

- Step 1: Start by cutting off the neck of your bottle so that your children will be able to put rocks inside of it.
- Step 2: Fill your bottle with water to halfway.
- Step 3: Let your children add rocks and see what happens to the water level.
- Step 4: Once your children have put enough rocks into the bottle to get the water level to visibly change, pause for a moment and talk about how as the rocks take up space where the water was, the water is forced out (displaced). Ask your children if they think that bigger or smaller rocks will displace the water faster.



Step 5: Now give your children a chance to experiment with different sizes of rocks to see whether bigger or smaller rocks displace the water quicker.

Activity 7: Create a Handprint Cat

Resources:

- Soil/Ash/Charcoal
- Water
- A4 Piece of Paper

Activity:

- Step 1: Help your children to mix up soil or charcoal or ash with water to make ink for fingerprinting.
- Step 2: Dip your hand into the ink/paint then press your dipped hand on a white piece of paper. Help them to press their hands in a way that the four fingers face down as standing legs of the cat, the thumb becomes the tail of the cat, and the wrist part pastes the head of the cat with its ears.
- Step 3: Help them draw the face of a cat, on the top corner of the wrist area (the opposite corner to where the tail is). Help them come up with different techniques that suit them and encourage them to use their creativity. Give support where needed and ask them questions about what they are doing in each stage until their art is finished.
- Step 4: Help them to name their cats and to display their work. Encourage the child/children to be as creative as possible and make sure to have fun. Praise their effort and hard work.

Activity 8: Start with a Circle

- Resources:
 - "Start with A Circle" activity printout
 - Crayons or ouloured pencils
 - A pencil
 - An eraser

Activity:

- Step 1: From the given circles, draw different things that incorporate the existing circle shape into a drawing of something.
- Step 2: Color your drawings and present them.

Activity 9: Make Your Own Puzzle

- **Resources:**
 - Neo Driving puzzle worksheet
 - Colouring in pencils or crayons
 - Cardboard

Activity:

- Step 1: Give your children the Neo Driving Puzzle worksheet. Have kids colour in the worksheet.
- Step 2: Glue the coloured in worksheet to the piece of cardboard and cut it out.
- Step 3: Children can now build their puzzle as many times as they wish.



Activity 10: Discover Objects That Float

Resources:

- An old cooking oil bottle or 2L bottle
- Water
- A knife

Activity:

- Step 1: Start by cutting the neck off of your bottle so that your children will be able to put floating objects inside of it.
- Step 2: Help your children find things that float on water and fill your container about halfway up with these items.
- Step 3: Slowly add water to the container and let your children make observations about what's happening. If the objects float on the water, they will be pushed up as they are forced out of their place by the water (because the water is denser than your floating object it displaces the object the way that the rocks displaced it).

Activity 11: Free Fall and Air Resistance

Resources:

• Two objects of similar shape – one heavy and one light

Activity: This activity is based on an experiment conducted by Italian astronomer Galileo Galilei in 1589 (200 years before King Shaka was born).

- > Ask your child/children to pick up two objects of similar shape, one heavy and one light.
- Ask children: "If you were to drop a heavy and a light object at the same time, which one would reach the ground first? (they should answer this before dropping the two objects)
- Hold one object in each hand, then drop the two objects simultaneously and observe which one falls first (or if they fall at the same time).

Discussion: What fell first? Why do you think that happened? Repeat the activity 2-3 times, using different heavy and light objects. Ask the children if their hypothesis was true or not? What could be the cause? Did each round of the experiment produce the same results? Once children have explored their results, then explain that since the force of gravity is applied equally to both objects, both objects fall at the same speed. The things that can make it seem different are:

- Our intuition often tricks us. Because heavy objects fall with more force and are harder to pick up, it seems like they should fall faster as well.
- Although the weight of an object doesn't affect the speed at which it falls, the shape does. The more surface area an object has (relative to its mass), the more air resistance it will encounter, and therefore the slower it will fall. This is why a hammer falls faster than a feather.



- To illustrate this, do another experiment. You will need a solid object (like a piece of wood or a rock) and two pieces of scrap paper. Start by dropping the heavy item and one of the pieces of paper. Hold the piece of paper so that it is lying flat (like it was sitting on a table) and drop it at the same time as your solid object. The paper will meet much more resistance from the air than the solid object will and will fall slower.
- Next, drop two pieces of paper. You will observe that they will fall at basically the same speed. Now crumple one piece of paper into a tight ball and experiment again. The two pieces of paper will fall at drastically different speeds. The weight of the paper hasn't changed, but the shape has.

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