

Story Study: Springloaded

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 father are inventors. When her dad invents a helicopter hat and flies away, Neo gets bored and decides to make an invention of her own. However, she makes her invention a little too powerful and almost gets into trouble. Join us on this dynamic story reading to find out if she will get out of her predicament and learn about the importance of family and togetherness.

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Read the story

Before reading the book, look at the cover and ask children what they think the story might be about. Once you start reading the story, you will see that the book does not have any words in it. Here are some helpful tips to guide you before, during, and after reading the story:

- Give them enough time to state what they think and feel.
- Spend time with each page and let your child/group of children explain what is going on.
- Ask questions about what is going on in each picture or give clues such as, “Do you think Neo is bored?” or “I wonder why she is putting springs on her shoes?”
- Once you have finished reading, ask the kids what they liked about the story.
- 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 Questions and Topics

Comprehension Questions to ask children – These questions are designed to see how well children understood the story:

- What does it mean when something is spring loaded?
- What does Neo invent?
- Why does Neo make an invention?
- Neo’s invention works so well that it almost gets her into trouble. How?
- How was her invention influenced by her father?

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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:

- Neo seems bored after her father flies away. How does being bored make her more likely to be creative?
- Why is creativity important?
- Neo's father kind of abandons her, why do you think he does this? Is he trying to abandon her, or was he busy with other things and distracted? Do you think he wanted Neo to be bummed out? Have you ever made someone else sad without intending to? What happened?
- When Neo realizes that she is floating away, what does she do to fix the problem?
- Neo's father catches her as she falls back to earth. What might have happened to Neo if he hadn't been there? What does this tell us about the importance of family?
- How does the story help us to think about Ubuntu?
- Do you think that Neo's dad is impressed with her invention?
- Why do you think that Neo's father makes his own springloaded shoes? Why do you think he makes them for the cat as well? Why is it important that even the cat is included?
- Do Neo's elbow pads keep her safe?
- Do you think science is important?

Activity 1.1: Get Creative with Light Illusion and Making Rainbows

➤ **Resources:**

- Piece of white paper
- Clear glass filled with half water
- Pencil or stick
- Basin filled with water

Activity: As human beings, we see through light. Light hits an object, bounces off of that object, and hits our eyes. Then, our brain interprets the information into an image. Without light, our eyes wouldn't receive any information to interpret, which is why we cannot see when it is dark. However, light doesn't always move at the same speed, and this can cause our eyes to play tricks on us. To illustrate this, take a clear glass and fill it up about halfway with water. Then, take something like a stick or a pencil and put it into the glass. The stick will appear to bend where it meets the water; this is caused by the light slowing down in the water. Take a basin of water and move your hand back and forth in the water. You will be able to do it, but your hand will move much slower than it does in the air. The same thing happens to the light; it slows down because of the added resistance from the water. Give children time to play around with this (both the basin and the glass with the pencil), but make sure that they are well supervised. Children may also notice that if the glass is curved, then the pencil will appear to curve as well. This is because of a lensing effect caused by the curve of the glass. It is the same process that enables reading glasses to work effectively – because of the curve in the surface of the glass, the light exits the glass at a different angle and gets curved as it moves through the glass. As you look at the pencil from different angles, the angle that the light comes out changes as well which causes more or less profound distortion as the angle it exits the glass changes.

Activity 1.2: Making Rainbows

➤ **Resources:**

- Water (250ml)

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- Transparent glass or jar
- Piece of paper
- Soap
- Flashlight

Activity: Another light illusion that can be caused by water is **Rainbows**. We most often see rainbows after it has rained. This is because the light is passing through mist (droplets of water) and getting broken up into its different colors. There are a number of ways that we can use water to create our own rainbows using light.

- **Rainbow 1:** Water Glass Rainbows – In a dark room, take a glass filled with water and shine a flashlight (a small one like the one on a mobile phone works best) through it from the side at a downward angle so that the light from the flashlight shines onto a white piece of paper (or any flat white surface). Slowly move the flashlight around so that it is getting further and closer to the glass and is shining at different angles. You should be able to find a few sweet spots where the light will start breaking up into rainbow colors. It won't have the arch shape of a rainbow that we see in the sky, and may not be super strong; but as long as the room is dark enough, you should be able to make some rainbows appear.
- **Rainbow 2:** Soap Rainbows – Make soap bubbles and look at them in sunlight to find the rainbows. To make bubbles, rub your hands together in soapy water. Then, hold your hands together as if you are praying, but leave a cavity and a small hole on the end of your hand between your pinky and your palms. Point your fingers to the sky and put your hands to your face with your thumbs tucked under your chin and pointing at your neck. Now, blow through the hole in your hand to make bubbles. Let children have fun finding rainbows and allow them to chase the bubbles or try to pop them. Even very young children can enjoy participating in this activity!

Activity 2: Make an Artistic Alien!

Read the story again and stop on the last page where Neo and her dad are in space. There is an alien in a flying saucer who seems surprised to see them.

- **Resources:**
 - Miscellaneous supplies
 - Waste materials
 - Cardboard
 - Glue
 - Scrap paper
 - Paint (different colors)

Activity: Have children design their own alien and make it using natural and waste things that they collected around in your yard or surroundings. Have children think about what kind of traits their animal will have and how it will survive. In particular, have them think through the following:

- What kind of environment does their alien live in?
- What does it eat?
- Does it have any predators?

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- How are its features adapted to help it survive? For example, does it have a long neck like a giraffe that is good for reaching leaves in tall trees? Perhaps it has armor like insects or horns like impala or rhino to protect itself? Does it have venom like a snake or big teeth like a dog or lion? Etc.

Activity 3: Make and Fly Your Own Paper Planes!

➤ **Resources:**

- A4 pieces of paper
- Copies of Harrier airplane instructions
- Copies of Dart airplane instructions
- Copies of Eagle airplane instructions
- Pencils
- Crayons

Activity: Depending on the age of your children, there are a number of different levels offered for this activity.

- Gr 00-000: Help your children fold The Dart paper airplane (or let them watch you fold it and talk to them about what you are doing as you do it). Then, let your kids have fun throwing it and decorating it.
- Gr R-1: Help children follow instructions to make their own Dart paper airplane. Once they have folded it, they can decorate it and have fun throwing it around.
- Gr 2+: Have children follow the printed instruction and make The Dart paper airplane. Once they have made this one, challenge them to make The Harrier or one of the more advanced airplanes. Once they have finished, they can decorate them. Then, they can go outside and experiment with their two planes. Which one goes further? Which one stays in the air the longest? How do they behave differently in the air?

Activity 4: Sequence Your Own Story

➤ **Resources:**

- Copy of the book pages
- Crayons
- Scissor

Activity: Give children a copy of the book page with 9 images to put into the order. Allow them to colour the pictures first, then cut them out. They should then mix them up and try to put them back in the correct order (the order of which they occurred in the book). Give each child enough time to remember/think about what happened in the story, but encourage and support them along the way. If children are struggling, they can refer to the book to remind themselves what order things happened in.

Activity 5: Make a Bracelet and Carry the Power of a Superhero!

Once Neo has made her special shoes, she dresses up as a superhero. In the story, Neo uses science to get special powers, but children can do it with just their imaginations by dressing up and pretending to be superheroes! It is very beneficial for children to engage in this type of make-believe play, as they need to see themselves as capable, altruistic and powerful; playing superhero is a great way to develop these traits. Additionally, they will develop critical thinking and problem-solving skills as they create

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their imaginary worlds, and develop a sense of Ubuntu as they act out their fictional roles fighting off foes and protecting those in need. By pretending to be someone fictional like Neo or Spiderman, kids can learn real lessons such as the importance of looking after the people around us and that, as Spiderman says, **“With great power, comes great responsibility.”**

➤ **Resources:**

- Toilet paper roll
- Crayon or paint
- Ruler (for measuring)

Cut out a tubular section about 7cm wide from a toilet paper roll. Then, cut the roll long ways – children will use this to make their bracelet. They can decorate it with crayon or whatever you have around the house or center. Once they have made their bracelets, they should use whatever they have available to dress up as a superhero and engage in fantasy play (they should pretend to be a superhero).

Thanda is a non profit organisation based in rural Mtwalume, KwaZulu Natal South Africa. Our curriculum is made up of activities that we have developed over 12 years. The ideas and inspiration for our activities come from is a wonderful combination of educators, books, websites, YouTubers, and other places and people on the internet. We are very grateful for all of them. Where we use ideas or activities directly from a source, we always endeavour to give credit to the creator. We do not endeavour to profit from these story studies, we only wish to add value to the lives of people we may have the opportunity of crossing paths with.

Thanda is a non-profit Organisation based in rural KwaZulu-Natal, South Africa
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