



# AGE OF DISCOVERY

WHY IT IS IMPORTANT FOR CHILDREN TO EXPLORE AND LEARN MORE ABOUT THE WORLD AROUND THEM.

**E**xploring the world around them provides children with opportunities and skills to broaden their knowledge and understanding of people and things. These range from appreciating cultural differences and connecting with nature to acquiring important skills such as observing, asking questions, investigating and communicating.

Their innate curiosity about the whys, whats and hows paves the way for holistic development including language acquisition, enhanced cognitive ability and creativity.

*Beanstalk* asks educators and parents how they support children's discovery of the world.

## WHY IS IT IMPORTANT FOR CHILDREN TO DEVELOP A CURIOUS AND OPEN MINDSET?

**Alfred Chong:** We can build on a child's curiosity and their interests to develop abilities such as critical thinking, creativity, problem-solving skills and positive dispositions.

**Munirah Binte Abdul Rashid:** Curiosity can spur children to explore and interact with the environment. In the process, they gather knowledge and information that help shape their minds, character and behaviour.

## PARENTS, WHY DO YOU WANT YOUR CHILDREN TO BE CURIOUS ABOUT THE WORLD THEY LIVE IN?

**Irene Tan:** As children discover various traditions and cultures, they are also learning to understand and be sensitive to different perspectives and practices.

I believe it is important for my children to embrace diversity, and to recognise and respect people whose lives are different from their own.

**Soumik Chakraborty:** How children react in a certain situation comes from being aware of what's going on in the world. My son asks many questions when we watch news about the COVID-19 pandemic. He is now more mindful of safe management measures, such as washing his hands and wearing a mask, even if we are not present to remind him.

## TEACHERS, WHAT DOES THE DISCOVERY OF THE WORLD CURRICULUM LOOK LIKE IN PRACTICE?

**Alfred:** We usually begin with exploring the basic concepts of a theme with the children. They then embark on collaborative investigation, while the teacher guides them in making their own decisions and proposing solutions. For instance, under the theme of 'Our World', children learn about famous works of architecture, such as the Golden Gate Bridge in San Francisco. They then brainstorm and test various materials to build a miniature model of the bridge.

**Munirah:** We explore topics like rainforests, the Olympics and the Seven Wonders of the World through activities such as craftwork, educational videos, online research and journal writing. We create opportunities for group work as peer learning enhances learning. For example, the children engage in discussions and collaborate with their peers to create infographics and graphs related to the topic.

## HOW DOES ENCOURAGING AN INQUISITIVE MIND BENEFIT A CHILD'S DEVELOPMENT?

**Alfred:** It drives the thinking process, and promotes questioning and the urge to seek answers. Inquisitive children tend to raise 'why' questions, challenge ideas, and suggest alternatives or solutions to an idea or issue. Correspondingly, teachers play a vital role in facilitating these behaviours through hands-on activities, projects and simple experiments.



Spark children's curiosity about their world with simple activities demonstrated by Principal Alfred Chong and his teachers at Wat Patthar Educare Centre. Check these out at [go.gov.sg/activitiesdemo](https://go.gov.sg/activitiesdemo) or scan this QR code:



**Munirah:** An inquisitive mindset promotes critical thinking. For instance, during arts and crafts, curiosity spurs our children to explore and discover the different effects of paint, glitter, cotton buds and beads. Intentional facilitation in day-to-day activities, like encouraging children to ask questions and express themselves, also lays the foundation for active and confident learners and enhances communication skills.

## WHAT ARE SOME PROCESS SKILLS THAT ENABLE CHILDREN TO GATHER AND INTERPRET INFORMATION?

**Alfred:** The abilities to observe details, identify similarities and differences, think critically, make inferences and predict outcomes are examples of process skills. Another example is the ability to apply past knowledge and experiences to new situations. We can encourage children to think critically about their daily encounters and experiences by asking questions such as "Why do you think it happened?" and "What makes you say that?". This will help them to develop as reflective and thinking individuals.

**Munirah:** Observation and communication are some examples of process skills. As children's awareness grows, they notice and talk about the characteristics and attributes of things in their environment. They also observe the people they interact with and their behaviours. Engaging children in discussions will help them better process their thoughts and ideas.

## HOW CAN EDUCATORS FACILITATE THE DEVELOPMENT OF PROCESS SKILLS?

**Alfred:** Our teachers design learning activities that promote active participation. These include multi-

“ We adults tend to underestimate our children's ability to be agents in their own learning and development.”

**MR ALFRED CHONG, 36**  
Principal, Wat Patthar Educare Centre



sensorial exploration, teamwork with peers, investigations within and beyond the classroom, and applying learnt knowledge and skills. For instance, exploring the theme of 'Plants & Food' involves several weeks of reading up on the topic, outdoor interactions with nature, planting, culinary sessions and so on. A visit to a community garden provides real-world context. The children acquire new knowledge as expert gardeners share about their tools and the seeds of edible plants. We then introduce the concept of sustainability through a sustainable garden art-and-craft competition.

**Munirah:** For a zoology lesson, we researched about the different animals, watched video clips, and looked at animal figurines and books. We encouraged children to ask questions about the animals and to look out for such animals in their environment. This helps hone their observation and communication skills. Process skills can be adapted for children of different ages. For younger children, the focus is more on observing and discussing attributes such as colours, shapes and sizes of different animals. For older children, when we talk about flightless birds versus birds that can fly, they learn to classify and compare attributes that are similar or different, do simple investigations and look for solutions.

**PARENTS, HOW DO YOU SUPPORT YOUR CHILDREN'S CURIOSITY WHEN THEY SHOW AN INTEREST IN SOMETHING?**

**Irene:** When we are not able to answer Taneesh's questions, we look for answers together in books, on the Internet or through simple experiments. We realise that he learns better with a hands-on approach.

“ I like going to the park with my teachers and friends to learn about the different plants and animals.

**TANEESH CHOUDHURY, 4**  
Wat Patthar Educare Centre



**CELEBRATING SG WOMEN**

We can raise children's awareness to events that are happening around them. In Singapore, 2021 has been dedicated as the year to celebrate women's achievements and support their progress in bettering our society. Talk to children about how the women in their lives have contributed at home, in preschool and at work. Share and view posts on social media with the hashtag #CelebratingSGWomen.



**Soumik:** Aarush shares the same interests as me in outer space and cars. We watch and discuss documentaries on space. I bring him to the car workshop where he can observe mechanics at work. I also involve him when I cook by giving him simple tasks and acknowledge his contributions.

**TEACHERS, ANY TIPS FOR PARENTS TO BETTER SUPPORT CHILDREN'S DISCOVERY OF THE WORLD?**

**Alfred:** Go beyond a child's immediate context and raise his/her awareness of current affairs in the community or what is happening in the wider world. There may be events that might interest your child. Provide children with time and space to explore and express themselves. Ask open-ended questions such as "Why do you think that..." to extend discussions and thinking. Align what is discussed at home with themes taught in preschool, and participate in preschool or community events. Initiatives such as the 'Keep Clean, Singapore' movement are meaningful and relevant, and motivate children to show interest in their world.

“ As children discover various traditions and cultures, they are also learning to understand and be sensitive to different perspectives and practices.

**MDM IRENE TAN, 39**  
Homemaker, mother of Taneesh Choudhury



“ An inquisitive mindset promotes critical thinking.

**MS MUNIRAH BINTE ABDUL RASHID, 36**  
Senior Teacher, Josiah Montessori Kindergarten (Tampines)

**Munirah:** Take children for walks and have conversations with them while getting them to observe the things around them. Inculcate a love for reading, as books are a gateway to the world. Have a mix of fiction and non-fiction books.

**WHAT ARE SOME PITFALLS THAT COULD STIFLE A CHILD'S CURIOSITY?**

**Alfred:** We adults tend to underestimate our children's ability to be agents in their own learning and development. When adults take the "do what I tell you" approach, learning becomes directed by the adult and that stifles the child's progress. We need to view children's curiosity and interests as entry points for us to engage them further.

**Munirah:** Too much screen time takes away the opportunity for children to engage with the environment around them. Being overly protective is another pitfall. While done out of love, not allowing children some freedom to explore may rob them of the opportunity to gain knowledge and learning in their areas of interest. Always look out for the child's safety, but don't be too quick to jump in to prevent your child from trying and taking calculated risks.



**WE ARE THE WORLD**

**Dr Hanin Hussain, Senior Lecturer, Psychology and Child & Human Development, National Institute of Education, shares some tips to support children's discovery of the world and their place in it.**

Discovery of the world is about giving children opportunities to interact with the people, places, things, activities and ideas in their lives, create meaningful relationships with these aspects of their world, and contribute to these in their own way. When these experiences become part of everyday life, children will continue to be naturally curious about the world and how things work.

- **PLAY TOGETHER AS A FAMILY** Family experiences serve as foundations for developing social interactions and relationships outside the home, and for playing with others in preschool and in the neighbourhood. Let children take the lead in the play. Immerse yourself in the children's make-believe world.
- **EXTEND AND DEEPEN CHILDREN'S UNDERSTANDING OF THE WORLD IN PRESCHOOL** Teachers can extend children's emerging understanding of the world of relationships through dramatic play, where they can build on their experiences at home or in preschool.
- **EXPAND THEIR WORLD BY EXPLORING NEW EXPERIENCES TOGETHER** Raise children's awareness about the environment by bringing their attention to how rubbish and food waste are generated and managed, at home and in preschool. When visiting supermarkets and food courts, provide opportunities for children to talk about how they can contribute to less waste. This can be further extended to experiences and ideas around sustainability, such as the 6Rs (Refuse, Reduce, Reuse, Repair, Repurpose, Recycle).

“ My teacher showed us books and videos on the Seven Wonders of the World. I have learnt the names and special places of different countries.

**AARUSH SOUMIK CHAKRABORTY, 6**  
Josiah Montessori Kindergarten (Tampines)

“ How children react in a certain situation comes from being aware of what's going on in the world.

**MR SOUMIK CHAKRABORTY, 40**  
Digital Marketing Entrepreneur, father of Aarush Soumik Chakraborty





# NATURAL PROCESS

**ECDA FELLOW STELLA PEREIRA SHARES HOW EDUCATORS CAN HELP CHILDREN DEVELOP PROCESS SKILLS TO HELP THEM DISCOVER THE WORLD AROUND THEM.**

Process skills can be introduced naturally through regular preschool activities, observes Ms Stella Pereira. "In one classroom, a teacher had placed a transparent container with some leaves in it in a sunny corner of the classroom. The leaves had mysterious dots on them. The children were curious and excited, and wondered what the dots were. When they realised these were butterfly eggs, they were eager to get to preschool each morning, hoping to see a butterfly emerge. The teacher encouraged the children to observe the changes, make inferences, ask questions, predict what would happen next, record their observations, and discuss with their peers," she notes.

While developing their language and cognitive skills, the children were also picking up values. Adds Ms Pereira, "Once the butterfly emerged from the chrysalis, the children observed as it shook its wet wings dry and rested awhile. They then decided to release the butterfly back into nature and watched with pride as it made some tentative movements before fluttering away. This shows how children can also learn to be sensitive towards nature."

Sparking curiosity in children begins with the adults around them. Educators and parents should themselves be more curious and aware of their environments. With greater awareness of their surroundings and the opportunities these present, coupled with knowledge of how to develop process skills, educators and parents will be better able to spark curiosity in children.

## HOW CAN WE DEVELOP STRONG PROCESS SKILLS?

Here are some ways to do so:

### > OBSERVING

Ask children to say or write down what they see, for instance, the size and physical characteristics of the caterpillar as it eats and grows each day.

### > QUESTIONING

Ask questions or rephrase queries posed by the children, and investigate the answers. For example, the question "How does a caterpillar turn into a butterfly?" can be used to jumpstart a discussion. This can lead to researching information on the Internet, or a trip to the library to borrow related books.

### > PREDICTING

Get children to make predictions by asking questions such as, "What happens inside the chrysalis to make the caterpillar turn into a butterfly?" or "What do you think will happen next?"

### > EXPERIMENTING AND INVESTIGATING

Provide opportunities for children to conduct simple investigations and experiments. For instance, set up an experiment to see what caterpillars like to eat or how beans grow.

### > RECORDING

Children can record their learning in a journal, chart, graph, or any preferred format such as a drawing or painting.

### > INTERPRETING

Guide children to look for similarities, differences or patterns, recall prior knowledge or experience, and draw conclusions.

### > COMMUNICATING

Children can communicate their findings and compare results by representing their ideas through art, graphs or Show & Tell sessions.



### MS STELLA PEREIRA

*ECDA Fellow and Cluster Director, The Little Skool-House International*

Ms Pereira believes in curating memorable learning experiences for children, collaborating with parents and the community, and advocating for the early childhood community.