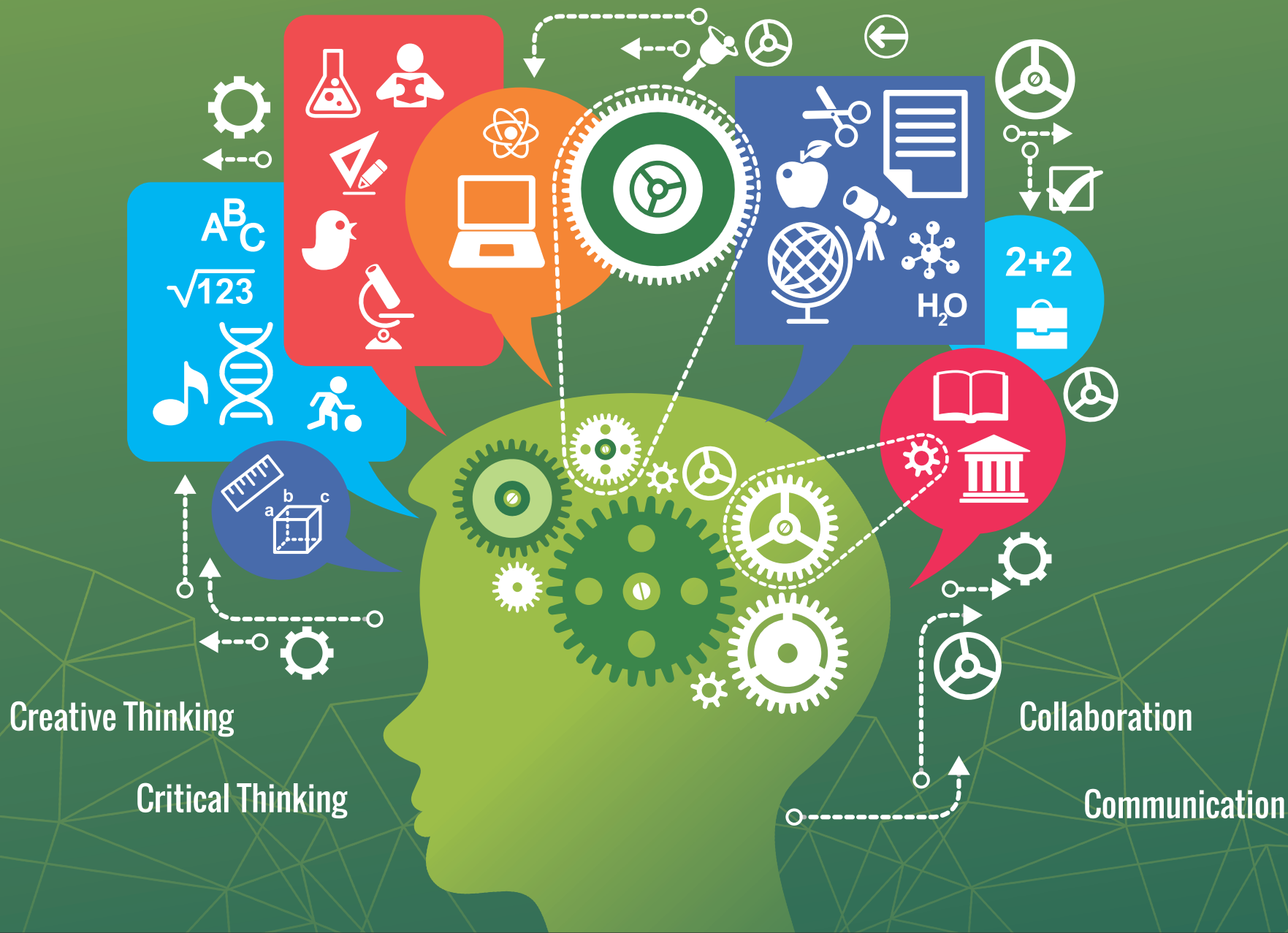


4C'S OF 21ST CENTURY SKILLS



HOW ANTS DEMONSTRATE 21ST CENTURY SKILLS?



This is Tofu. He was a part of food expedition team, but somehow he got lost in the jungle. It was a long day for him, as he couldn't gather any food for his family and friends. Suddenly, a glare reflecting off a distant shiny square looking object catches his attention. In the hope, he will have something to eat, he rushes to it. It's three times larger than Tofu's size. Tofu's eyes lit up. It was a big fat cube of sugar, large enough to feed his entire community. But Tofu couldn't lift it by himself.



He immediately made sounds and called his community members with excitement. After some time, he saw the whole army of ants marching in lines. They were all leaving trails behind to return back home. Then he communicated the challenge he was facing and invited them all to brainstorm to find a solution.



After a long session of analyzing, understanding and brainstorming, they unanimously came to a decision of lifting it with their combined physical power. They formed teams, divided tasks and started the work, and managed to bring the sugar cube to their colony.



But another challenge was standing in their way. It was impossible to take the whole cube inside the tiny gate of the colony. So, they came up with the solution of breaking the cube into pieces and carry it back to their homes. For his wonderful work, Tofu was rewarded and they all lived happily.



TOFU'S COLONY - A CREATIVE THINKING MODEL

TOFU's home a.k.a. Anthill is a brilliant example of Engineering combined with Creative Thinking. Anthill is a pile of fine soil, sand or clay, and sometimes with pine needles. They are interlaced with many chambers connected by tunnels. Some ant species have connected anthills with cooperating colonies over the large stretch. During rains, the tunnels act like storm drainage and allow the water to pass through the nest without pooling.

ARE TOFU AND HIS FRIENDS CRITICAL THINKERS?

The task of lifting and carrying Sugar Cube thrice their size performed by TOFU and his friends is a sheer example of how critically they can think. Tofu was able to observe the size, measurement, and shape of the sugar cube and decided to call his friends for help. They analyzed the situation, brainstormed, and solved the challenge.

DO TOFU AND HIS FRIENDS COLLABORATE?

The very act of TOFU and his friends coming together to solve a challenge is an excellent demonstration of Collaboration and Cooperation. Being the social insects, just like us, they also collaborate for activities like collecting food, building colony and living together.

ARE TOFU AND HIS FRIENDS GOOD IN COMMUNICATION?

In the above story, Tofu was able to clearly communicate the challenge to his counterparts. They all marched in line leaving trails so that they can return back home. Communication helped them to solve the challenge of carrying food inside their colony.



WHAT ARE THE 21st CENTURY SKILLS ?

CREATIVE THINKING

thinking out of the box,
observing new patterns

approaching unusual ideas

connecting old experiences
with current challenges and
building something new

visualizing, ideating, thinking
in new way

compositing, imaginative
thinking

CRITICAL THINKING

understand logical
connections between ideas

identify, construct and
evaluate arguments

detect errors in reasoning,
problem-solving

identify the relevance

reflection on justification on
one's beliefs and values

COLLABORATION

working in groups with
people belonging to diverse
culture

encourages constructivist
approach

diversity in understanding

recognition of peer's work

develops cooperating and
coordinating individuals,
leaders

COMMUNICATION

learn to express ideas clearly

improved social interaction

asking better questions better
listening skills

effective presentation skills

builds confidence and
charisma

accurate interpretation,
interpersonal communication





THE PARADIGM - SHIFT

- Shift from **content-based curriculum** to **competency-based curriculum**
- Shift from **learning to recite** to **learning to knowledge application**

The 21st Century is dynamic and accelerating towards a digital society. A network connectivity that integrates physical world into computer-based systems. With that said, robots have already replaced humans from production line assembly, and the tremors of Artificial Intelligence has shaken the workforce before it making inroad to industries. The children of today need to meet the demands of the emerging workplace and society.

CLASSROOM INNOVATION - ROLE OF TEACHERS

Teachers can:

- transform classrooms from teacher-centric to student-centric where students can decide what they want to learn and how they want to learn
- empower students to become Creators, as they facilitate them to create digital content like videos, infographic and creative blog
- keep updating themselves about new technologies and have their own hands-on experience and expertise before empowering kids with their learning
- inspire students to learn about other cultures, countries, and people which will help them to collaborate and communicate in global economy
- encourage inquiry-based learning by allowing students to use smartphones and find answers to the questions posed by themselves
- make sharing of resources seamless by going paperless with sharing links and organizing digital discussions on applications like Skype
- collaborate with other teachers and students and create presentations, projects and make classroom activities resembling corporate world
- afford to bring experts and CEOs to their classrooms via online conferences and help students interact with industry professionals
- expand their teaching toolbox by trying new ways of teaching like replacing textbooks with web resources or showing TED Talks for a particular subject

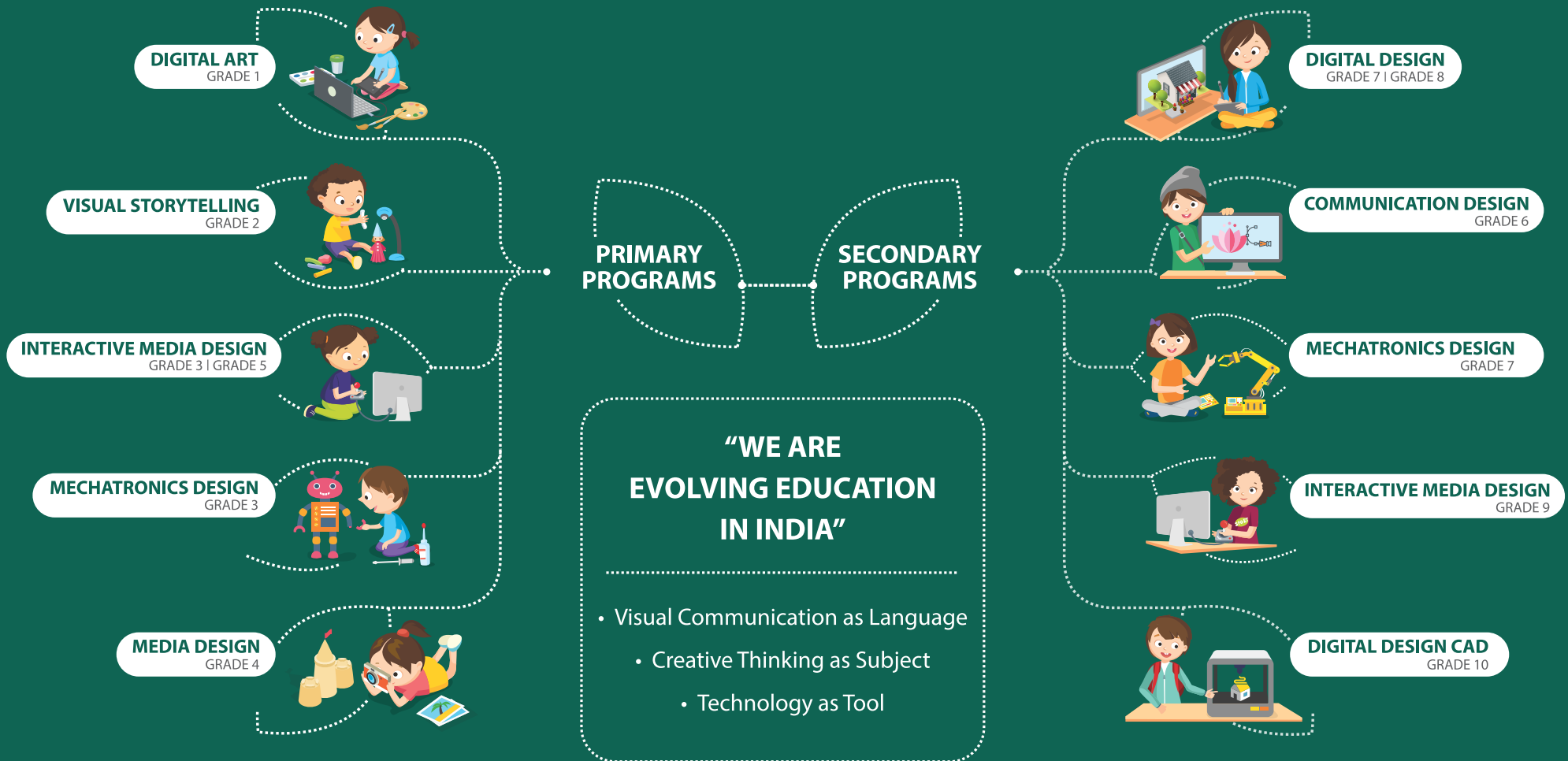
CONCLUSION

Learning 21st Century Skills will help to bridge the gap between the skills taught and skills required for coming generations to perform in the ever-changing global economy.

The Baby Boom Generation (people born between 1946-1964) entered the workforce with a goal of stability, but the current workforce is more likely to change career fields or jobs as they are more concerned with finding happiness and fulfillment in their work lives. This demands for diverse skill sets, that enable people to be flexible and adaptable in different roles and different career fields.



MindBox is an initiative in the Creative Education Field with an aim to develop and expand the Creative and Life Skills of students by conducting diverse STEAM based programs in Schools.



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