LEARNING AT QUEEN OF PEACE

Term 4, 2018

Dear Parents and Carers, 8.10.18

Welcome back everyone to Term Four! I hope everyone had an enjoyable and relaxing break from school and is ready for another busy term. Term Four is set to be an exciting time for learning as children in all year levels participate in the Faith Life Inquiry unit 'Scientific Innovation.' Many engaging learning experiences will be happening to draw the children into learning about science and innovation.

Human Sexuality program

At the end of Term 3, the children participated in the Human Sexuality Unit informed by the Catholic Education Melbourne's Growing Together in Life and Love Program, Body Safety Australia and the Victorian Curriculum. At QoP, we value our role in supporting parents and caregivers in teaching their children that Human Sexuality, which is integral to the human person, is a gift from God. Thank you for attending the parent information session and talking to your children about this important topic. We received very positive feedback from parents.

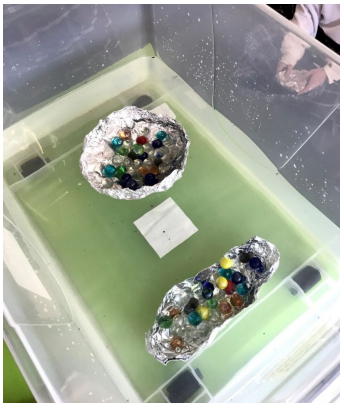
The children were also very involved in the sessions at school that included songs, interactive games, stories and age-appropriate educational activities. The children's learning included; respecting people's boundaries around touch, recognising and trusting instincts and emotions, identifying trusted adults, knowing fight, flight and freeze responses, helping a friend, identifying the difference between secrets and surprises, stages of growth and development.

STEM (Science, Technology, Engineering, Mathematics)

STEM education refers collectively to the teaching of Science, Technology, Engineering and Mathematics. The underlying purpose of STEM education is to equip children with critical thinking, problem solving, creativity and communication skills, necessary for future success.

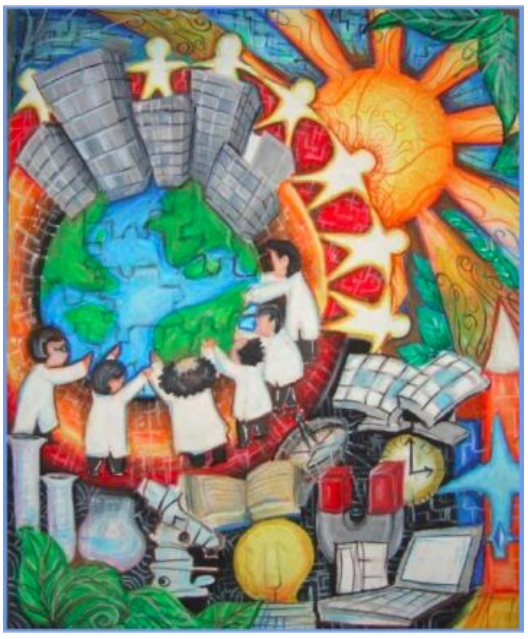
STEM is part of everyday life and an increasing part of every workplace. STEM education enables the children to develop solutions to complex problems and provides them with literacies and capabilities that will help them succeed in a world of technological change. Learning in STEM can be through discrete learning areas (subjects) where the content, skills and processes of each learning area are developed or through a holistic approach to learning which integrates the study of Science, Technology, Engineering and Mathematics. STEM knowledge, understanding and skills are included in the Victorian Curriculum learning areas of Science, Mathematics and Technologies. While Engineering is not a distinct Victorian Curriculum learning area, engineering processes and skills can be found in Science, Mathematics and Technologies. In Technologies, specific engineering content is included through the Engineering principles and systems learning context and the processes

and production skills strand in the Design and Technologies and Digital Technologies subjects.



QOP is committed to learning in STEM and these learning areas are included in the curriculum as distinct learning areas or integrated into many of our Faith Life Inquiry units. In Term Four, as part of the Scientific Innovation Faith Life Inquiry Unit all children will be involved in STEM learning. The children will deepen their understanding of Science and Engineering and how scientific knowledge is used by engineers to design new technology. Throughout the unit children will work as both scientists and engineers. The children will be presented with STEM challenges where they will be required to use scientific understanding along with Technology and Mathematics to help them solve problems and create solutions

Faith Life Inquiry and Scientific Innovation



Our focus on religious scripture and the related image that will drive the learning in our whole school Faith Life inquiry around Scientific Innovation is:

How good and pleasant it is
when God's people live together in unity!
Psalm 133:1
Pope Francis quote.
"Each of us has a personal responsibility to care for creation, this precious gift which God has entrusted to us."

In the Scientific Innovation topic, the children will explore Psalm 133:1 and make connections to the Catholic Social Teaching of Solidarity. "Solidarity is a firm and persevering determination to commit oneself to the common good; that is to say to the good of all and of each individual, because we are all really responsible for all" (Saint John Paul II - Sollicitudo rei socialis). The children will identify how good it is when God's people work in unity and get along, leading to a developing understanding that everyone has an obligation to act in solidarity and promote the rights and development of all peoples across the world. The children will explore how all people belong to one human family and that everyone should work together so that all people benefit from advances in science, engineering and technology. The children will also reflect on how innovators are challenged to make fair and equitable decisions for the good of all people.

Throughline

For each Faith Life Inquiry Unit there is a 'Throughline.' A 'Throughline' is a central theme, concept or idea that can be developed across the school from Prep to Grade 6. The Throughline for the Scientific Innovation unit is:

Through scientific inquiry people seek a deeper understanding of the world we live in leading to discovery and innovation. Our faith helps us to act ethically and use scientific discovery and innovation for the good of all God's creation. Scientific Innovation has contributed to the development of the world in which we live. Scientists and innovators use their knowledge of how the world works to find solutions and meet the needs and wants of people in our local and global world.

Throughout the term, the children will explore the following understandings:

Prep:

The children in Year Prep will work as scientists and explore the materials that objects are made of. They will sort objects on the basis of observable properties of materials such as; colour, texture, flexibility, absorbency, strength. The children will build structures using varying materials (e.g: blocks, straws, newspapers) and investigate how the properties of materials can affect the strength and function of the structure. At the end of the unit, the children will work as engineers and apply their scientific knowledge to create a "Tiny Town." The children will explore the following understandings:

- God wants us to work together to improve our world for all God's creation.
- Objects are made of observable properties.
- Materials can be changed to suit different purpose.
- Structures such as bridges have changed over time.
- Scientists and engineers work together to solve problems.
- There are steps to finding out things eg; pose questions, make simple predictions, observe, record observations and findings communicate findings.

Year 1&2:

The children in Years 1 and 2 will work as scientists and investigate how things move in ways that can be predicted and described. They will explore the types of forces that affects the movement of objects, including what can slow them, stop them, and change their direction. The children will explore the effects of friction, gravity and magnetism on moving and stationary objects. The children will then work as engineers and use their scientific understanding of force to create a toy that moves. The children will explore the following understandings:

- God helps us to make choices for the good of everyone.
- People work together in unity for the good of all.
- Engineers use scientific knowledge to design and make things for people to use so the world is a better place.
- Toys are made of different materials and components that have parts that move.
- Different forces affect the movement of a toy eg: push, pull, gravity, friction and magnetism.

- Objects are made of materials that help the object function ie: things that sink, float, fly, spin, etc.
- Engineers use a design process to create new things and make existing things better.

Year 3&4:

The children in Years 3 and 4 will work as scientists and conduct a variety of scientific experiments to investigate; contact and non contact forces, heat, solids, liquids and gases. The children will be involved in scientific inquiry to question, make predictions, conduct investigations, organise data, explain observations and findings. The children will then work as engineers and use their scientific knowledge to creatively solve problems. They will use the design process to navigate a challenge by trying, testing, evaluating and rethinking their designs and then trying some more. The children will explore the following understandings:

- People live and work together ethically, for the good of all God's creation.
- Scientists and engineers use a process to solve problems.
- Forces affect the behaviour of an object.
- The state of a material can be changed.
- Heat can be produced in many ways and can move from one subject to another.
- Scientific innovation has contributed to the world we live in.
- The properties of materials can affect the way things work.

Year 5&6

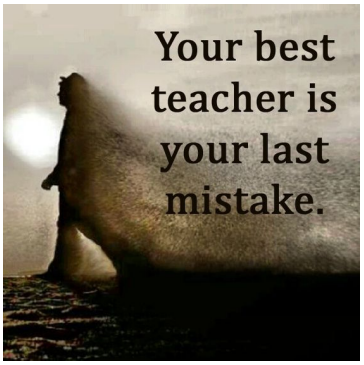
The children in Years 5 and 6 will work as scientists and conduct a variety of scientific experiments to investigate; electricity, changes to materials and extreme weather. The children will be involved in scientific inquiry to question, make predictions, conduct investigations, organise data, explain observations and findings. The children will then transfer their scientific understandings to work as engineers. The children will engage in hands-on activities that mirror the practices of engineers eg; defining problems, designing solutions, developing and using models, planning and carrying out investigations, analysing data, evaluating and communicating information.

The children will explore the following understandings:

- Our Faith guides us to work together in solidarity to make decisions, based on shared values, for the good of all.
- Jesus is a role model of an innovator who showed persistence and sacrifice.
- Materials have a range of properties that can change; these changes can be reversible or irreversible.
- Energy comes from a variety of sources.
- Extreme weather conditions can affect the Earth’s surface.
- Scientists follow an inquiry process to find out how the world works.
- Engineers follow a design process to find solutions to problems and create opportunities.

Mathematics Wrong Answers, Great Learning

Research on mathematics learning shows that mistakes are a very important and natural part of learning. When a person makes an error in mathematics and has an opportunity to learn from it, they develop a much stronger understanding. In fact, the research states that children learn more from making mistakes than from getting all the right answers. Mistakes offer insights into what the children are understanding about a mathematical idea. It allows parents and teachers to ask questions to stretch thinking and develop understanding. Parents can ask "How do you know that? What was your thinking here? Is there another way you could solve that?" This conversation helps to develop the crucial skills of reasoning and communication and is therefore more helpful than simply showing a child how the mathematics is done. When you support an attitude that values learning from mistakes, you are telling your child that mistakes are a valuable part of learning.



In 2018, the teachers in years prep to year 2 have been part of an early years Mathematics Project and implementing the Pattern and Structure Mathematics Awareness Program (PASMAP). PASMAP consists of learning experiences focused on developing and improving algebraic thinking in all areas of Mathematics. The data from the post tests conducted at the end of term 3 show that the children in the year levels involved in the project have made great gains in their algebraic thinking with the effect size being greater than .4 (.4 represents a years growth) from the pre test conducted in February.

In Term Four, the year levels will begin the following units in Mathematics:

Prep	Shape	**Year 4**	2D and 3D Shapes
Year 1	Time	**Year 5**	Measurement
Year 2	Volume and Capacity	**Year 6**	Mass and Capacity and the decimal representation of these
Year 3	Fractions and Decimals		

English

This year, QoP has started using the Fountas and Pinnell Benchmark Assessment program to assess the children's reading levels. The Fountas and Pinnell program looks more deeply at the children's comprehension of what they read and how they respond to the texts. The levels of questioning about the text become more complex and demanding as the children move through the primary years of schooling. We track the children's reading growth by assessing their reading 2 or more times a year with Fountas and Pinnell. Teachers also complete frequent reading checks as part of their literacy programs. This information is used to plan literacy activities and to make informed decisions about reading intervention groups for children who are not at the expected level. The best way to help your child develop their

comprehension and reading skills is to listen to them and then discuss what it is they have read, asking questions that start with words such as “Why.. or How…?” as these questions are more reflective and require your child to think more deeply about what they read.

PAT Testing

As part of the assessment schedule at QoP the children will do the Australian Council for Educational Research (ACER) Progressive Assessment Test - Mathematics (PAT-M) and Progressive Assessment Test - Reading (PAT-R) tests this term. The PAT-M and PAT-R are an Australian, nationally normed series of tests designed to provide objective and data based information to teachers about their children's' skills and understandings. In the first 3 weeks of term 4, the children will undertake the online PAT Reading comprehension (PAT-R) and Maths (PAT-M) tests. These tests are done annually. Each test takes approximately 40 minutes (two tests in total) and each is done online. The school will use the data to focus on individual achievement with a focus on growth since the test was last done in 2017. There will also be a focus on improving teaching and learning programs and highlighting common areas of educational success and challenges amongst our children.

NAPLAN

The NAPLAN results for children in years 3 and 5 were released late in term 3. These tests in the key areas of literacy and numeracy provide parents and educators with a snapshot of how the children are progressing individually, as part of the school community and nationally. The 2018 national data indicates that Victoria, NSW and the ACT continue to be the highest-performing systems, scoring at or above the national average across all learning areas and year levels. At QoP the results for reading and writing were strong with both the Year 3 and Year 5 cohort reaching or exceeding the Victorian State mean. The Victorian State mean was exceeded in numeracy in Year 3.

These overall results are valuable for planning and evaluating our school programs however, individual results can be quite variable. Your child’s mid-year report, 3 way learning conversations and ongoing dialogue with teachers, together with the NAPLAN results, provide an accurate assessment of your child’s learning. The staff will now take the opportunity in term 4 to analyse the results, along with other assessment data, to look at whole school growth and any potential areas of improvement. The aim for all staff at QoP is to continually improve the children’s outcomes in Numeracy and Literacy.

Finally...

As this is the final term of another busy year, I would like to take this opportunity to thank you for the support you give to both your child and to the school. I would also like to thank the teachers for all the hard work and energy they put into everything they do. They work hard to support all children and provide supportive and engaging learning experiences.

Joanne Pearce

Director of Learning and Teaching