

St Joseph's School STEM Action Plan

How do we ensure our current STEM Resources are utilised across the school throughout the year: Lego Mind Storm EV3 Kits (2018), Hands On Mathematics Equipment (2017), Construction Kits & Science Resources (2016)?

- Purpose build storage in hall along wall for all Science resources within the school allowing teachers easy access. Shaun and SRC to work on this action
- Years 4-6 need time to familiarise themselves with the *Lego Mind Storm EV3 Kits*
- August: Science Week: Incorporate Pods, Hands o Science/STEM
- Mathematics Equipment purchased in 2017 to remain in classrooms

How do we incorporate STEM unplugged into the curriculum?

- Children work in teams: JPs afternoons: Towers and construction. Framing the right questions to entice children to work/construct things together
- Children need time to familiarise themselves with resources/equipment
- The Arts related in JP: problem solving
- Enabling children/groups to share their thinking and strategies used to create final product is a highly valued part of the learning process (value added learning)
- Hold a STEM Open Day using the resources purchased as part of recent Mobil Grants. Open the school up to parents joining in on the learning in order to build community and show case student learning
- Allow time as a part of each STEM session for student sharing of ideas/strategies etc

How do we incorporate STEM electronics into the curriculum?

- Used as tools to support STEM learning. Children need to be given opportunities to work in groups in order to become flexible (negotiate with others, share resources, consider the input of others etc) and develop effective communication skills
- Children need time to familiarise themselves with resources/equipment

Other questions to consider/contemplate?

- STEM to be linked where possible to our whole school ecological conversion/sustainability focus: Butterfly Garden, Planter Boxes, Recycling, Re-use, Compost, Vegetable Growing, Rainwater Collection, Storage and use
- Explicit teaching is still required to support children to develop a deep understanding of new concepts
- All children and in particular our EAL children would benefit greatly from language based explicit teaching around new scientific words, terms, phrases, instructions
- STEM involves learners being presented with unfamiliar experiences, providing opportunity to transfer Art, Science, Mathematics, Technology skills from the known to the unknown in order to find solutions and make connections
- Our Master Plan Nature Play area will provide opportunities for children to engage in STEM