# **Attachment 1**

# **SASTA Consultancy Exemplar Plans**

# **Staff Meetings**

**Example - Introducing a common understanding of STEM teaching and learning: All staff**

2-3 x staff meetings 3.30 pm – 5.00pm

1. **First session** to consolidate an understanding of **STEM as an approach to teaching** that integrates inquiry across the curriculum.  This would include an activity that looks specifically at the skills of science inquiry and then how these are related to STEM pedagogies.
2. **Second session** to look closely at the **Engineering Design Process** with an aim for teachers to gain confidence in embedding this problem solving process into their existing teaching and learning program.  This session would include a simple engineering design task to illustrate the process.
3. **Third session** (if needed) would bring all the ideas together to allow teachers to **plan their own tasks for implementation** in their classrooms.  Teachers would be provided with exemplars and templates to assist in their planning.

The cost for each session is $300 plus GST.

This cost includes any hard copy and electronic resources supplied.

# **Single Sessions with Year Level Groups**

**Example – Planning in STEM**

Year level groups: 2 hour session for each group.

* R-2
* 3-5
* 6-7

With each group we will:

* Explore the core elements of STEM and how to embed STEM learning in Science teaching and Learning plans
* Work through an activity designed to highlight the engineering design process of STEM education
* Be provided with resources to support teacher planning in STEM
* Be provided with templates and time for planning.

The cost for the full day is $1000 plus GST

This cost includes any hard copy and electronic resources supplied.

# **Pupil Free Day – All Staff**

**9.00: Session 1**

* **What is STEM Education?**

We will aim to build a common understanding of STEM Education, the curriculum that underpins it and the opportunities it presents for us as educators.

* **How do we bring STEM Education into our teaching and learning programs?**

I will approach STEM instruction from a science educator’s point of view, arguing that the integration of engineering practices is a way to enhance science instruction and to integrate the components of STEM. Engineering offers a tangible link between the STM components and their applications.

**10.40: Morning Tea**

**11.00: Session 2**

* **What does STEM look like in the classroom?”**

The goal of the workshops is to provide teachers with a simple, practical process for implementing meaningful STEM learning in the classroom. Teachers will be guided through exemplar lessons that incorporate engineering practices and design processes. We will explore a variety of teaching strategies that support these learning outcomes.

**1.00: Lunch**

**1.45: Session 3**

* **How can I design meaningful STEM lessons?**

We will explore how we can design lessons and tasks that allow students to apply or demonstrate their knowledge in some meaningful and relevant fashion. Teachers will be provided with a range of resources for planning and designing effective, meaningful STEM lessons.

**3.00: Finish**

The cost for the full day is $1000 plus GST

This cost includes any hard copy and electronic resources supplied.

# **Sustained Engagement Plan – Key Teachers**

**Example -** Initial whole staff engagement with STEM on a pupil free day or at staff meetings then follow up development of key staff**.**

Working with **a key teacher** from each area of the school i.e. R-2, 3-5 and 6-7, to **develop units of work** at these levels while professionally developing these teachers in science and its link to STEM.  These key teachers could then in-service the others in their teams in using the planned units, offering them observation of their practice and follow up of team teaching units or possible observation of the other teachers in their team group.  This would require one teacher release at a time for one session on each of three days.  The other observation or team teaching could involve in school release when needed or requested.

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| --- | --- | --- | --- | --- |
| Goals/Objectives | Strategies | Who | When | Evidence |
| **Develop key STEM teachers in each learning area R-2, 3-5, 6-7** | **Consultant to work with key teachers for 3 sessions each to develop STEM units of work and develop key teacher knowledge.** | **SASTA consultant, Key teachers** | **3 days during term, each teacher to meet for 2  hours with consultant** | **Key teacher unit plans and enhanced understanding in the development and implementation of units of STEM work.** |
| **Key teachers to in-service staff in their learning teams** | **Key teacher will provide unit plans, demonstration lessons for other teachers or team teaching** | **Key teacher, classroom teacher, administration to provide release time** | **As required** | **Uptake of STEM units of work, greater understanding of STEM by all staff** |

The cost for each full day is $1000 plus GST

This cost includes any hard copy and electronic resources supplied.