The *STEMCrAfT* Project

Draft Framework

**USING THE RASPBERRY Pi micro-computer**

**1. Resource needed** Other

**2. Resource Name** STEM Resource 1

**3. Resource recommended by** STEMCrAfT CoP member

# 2. Planning

## Content knowledge<separate parts?>

2.1 Do I understand / have the knowledge? and pedagogies that could be used to deliver this outcome? Yes

### Decision help

2.2 Does this resource provide? accurate, contemporary information?<exploratory resource> Yes

2.2 Will this resource help me and my students understand this topic? Yes

2.3 Does this resource suggest pedagogies that will enable me to achieve the outcomes Yes

2.4 Would the STEMCrAfT Project Community of Practice (CoP) be useful? Don't know

<https://plus.google.com/?wwc=1#communities/115556048770028256485>

# 3. Context

3.1 Does this resource connect with my students’ prior experience / interests?<could start technology – computing unit> Yes

3.2 Does my school have the resources to use this resource? Yes

### Decision help

3.3 Will this resource suit my class? Yes

3.4 Can this resource be linked to familiar contexts for my students? Video games, car engine management systems, etc.

3.5 Does my school have the capacity to use this resource? (laboratory, funding, OHS, material, IT support etc) Yes

3.6 Have I got the time to understand how effectively to use this resource? Yes

# 4. Resource usability

4.1 What are the problems you might anticipate when you use this resource? Wires becoming tangled; parts going missing.

### Decision help

4.2 Are there OHS issues to consider? Yes

4.3 How does this resource compare to resources I have used previously? Raspberry Pi is an OPEN resource, compared to previous computer use on CLOSED systems <a research question for further investigation>.

4.4 Are there numeracy and / or literacy requirements that will be needed **before** this resource is used? Don't know

4.5 Does it cater for the learning needs of **all** of my students? Don't know

# 5. Support required

5.1 Do I need any support before I use this resource? There are schemes of work and software available for download. Need to register the MAC address of each Raspberry Pi with the Information Technology Support staff before use. <plus CoP>

### Decision help

5.2 Do I need to contact someone (physically or via technology) before I use the resource? No

5.3 Is this resource self-contained? Or do I need to order materials (think time, cost and availability etc) Yes

# 6. Implementing

6.1 Is this resource a **long-term** unit resource concept or a short-term unit applicable resource? 1. Several lessons / weeks

**If you answered 1 -** leave evaluation until you have used the resource OK

**If you answered 2 -** think about these questions as you are using the resource:

* Is the resource assisting in my intended outcome(s)?
* Do I have some formative assessment to support this?
* Have there been any problems?
  + Is the concept above or below my students understanding?
  + What did the students not understand about this resource?
  + Were there any unexpected OHS issues?
  + Other?

# 7. Evaluating

To be completed after the resource has been used.

### Purpose

7.1 Did the resource assist in achieving the student learning outcome? YES

7.2 Was the resource too complicated to easily achieve the required outcome? Comment

This is potentially a complicated resource, but this is part of the learning domain.

7.3 Did the resource provide a clear assessment opportunity against the Australian Curriculum? Yes

7.4 What extra resources (persona or other) were needed to supplement this resource? ITS

7.5 Could I have facilitated these resources better?

### Content knowledge

7.6 What have I learned through using this resource?

7.7 How could I better use this resource?

7.8 Would it be useful to have:

* A discussion with my colleagues?
* Connect with the CoP about this resource?

### Context

7.9 Did this resource fit my context?

**Yes** – describe how this resource worked and place a post on the CoP <https://plus.google.com/?wwc=1#communities/115556048770028256485>

* What aspects worked well
* Why did it work?
* Student feedback – what did they say?
* Advice for future users

**No** – Why didn’t this resource work? (this is valuable feedback, so tell the CoP as it is in your context).

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