

# JOIN THE PIEFA STEM challenge

THINK, IMAGINE, CREATE, DESIGN, DRAW, BUILD, SHARE.

## STUDENT FARMER TIME



FOUNDATION - YEAR SIX

[www.primezone.edu.au](http://www.primezone.edu.au)  
**primezone**  
The place for all your food and fibre resources



### THE TASK

Become a Student Farmer Time participant and take us on a tour of a space that produces any type of food and /or fibre or is important to the environment. You can work individually, as a group, a family or even as a class.

### THE SPACE

Your space can be real, imaginary, small or large.

Your space could be;

- an important or pretend farm in your state or region producing; sugar cane, fish, grain, cattle, timber, cotton, fruit, vegetables, pigs, eggs, dairy etc
- your dream farm, that produces your favourite foods
- an imaginary farm with the most advanced technology in operation
- a farm that is completely sustainable; providing income and supporting the environment around it
- your own farm where you and your family live and work
- a window sill garden, compost area, vegetable patch, school garden or community garden that you have access to
- a place of indigenous significance for food and fibre production

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## THE TOUR / PRESENTATION

Tell us about your space by taking us on a short tour of the area via any means you enjoy\*. Create a;

- audio or video tour
- annotated drawing, blueprint or painting of the space
- model (built or digital)
- photo journal or PowerPoint
- story or poem
- Prezi or movie
- Lego farm
- any means that shows us about the features of your space

## THINK ABOUT

Your presentation could include some of the following information;

- Why is your space important to food and fibre production?
- What things do you need to do to care for areas of your space over the seasons?
- How much and what type of food and/or fibre is produced in your space?
- Why is your space an important, sustainable, environmental area?
- Does your space provide income or education for people?
- A description of any scientific processes that happen within your space (photosynthesis, cycles etc)
- Are there any technologies that assist with running the space?
- Data you know about your area (amount of produce, who uses your products)

## SEND PIEFA

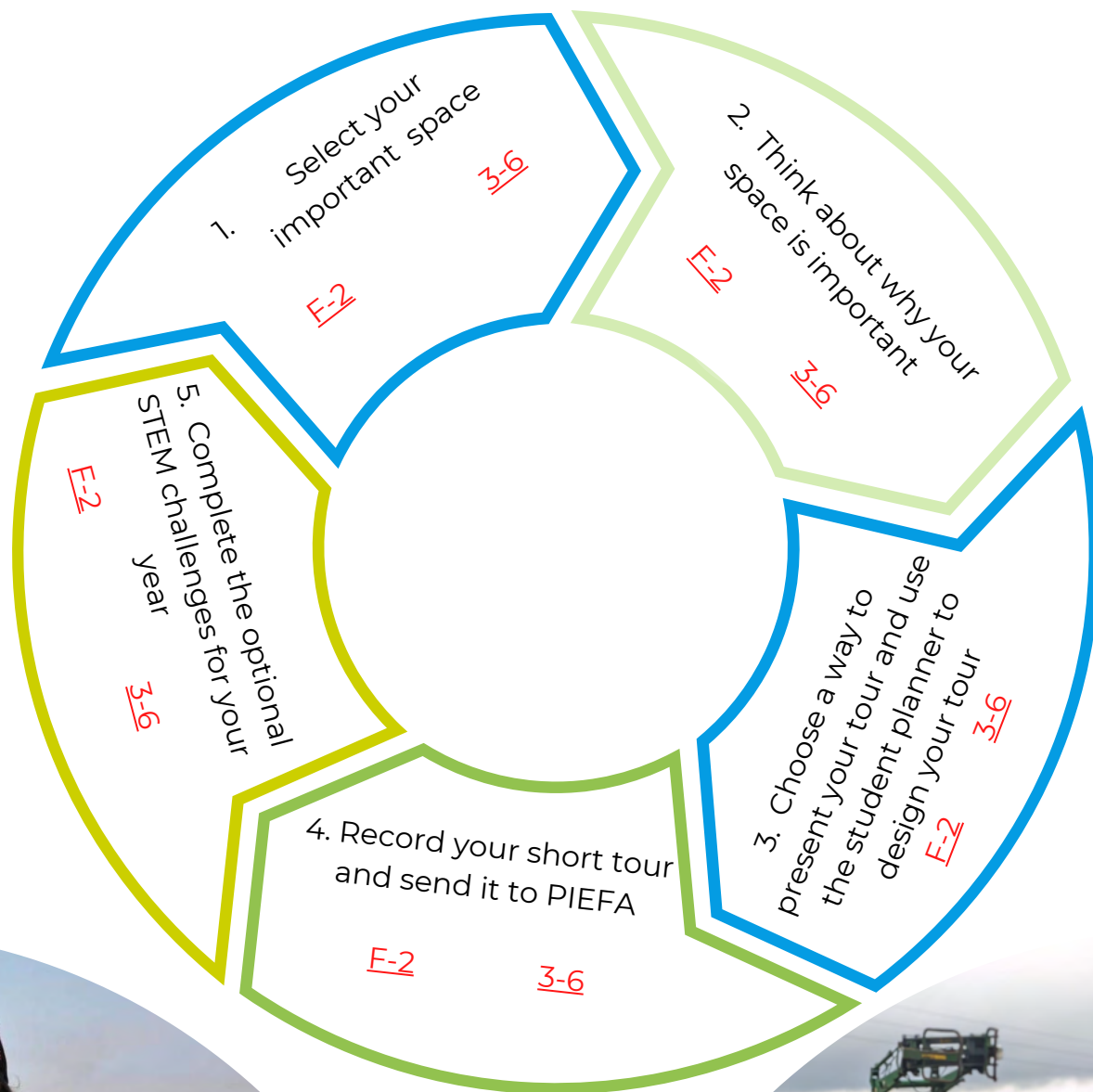
Send a finished sample of your work to: [ceo@piefa.edu.au](mailto:ceo@piefa.edu.au)

\*Please get your guardian or an adult to sign the submission form and attach this file too.

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## Steps and Video Instructions

Follow the steps below to complete your Student Farmer Time tour. Each step has accompanying video instructions to explain the task in more detail. Click on the [red instruction links](#) for the correct age group.



# MY SPACE PLANNER

A planning worksheet to design my tour

## THE SPACE I AM GOING TO USE

## I AM GOING TO PRESENT MY TOUR BY



This space produces food




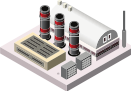
This space produces fibre



Drawing/ painting 

Video 

Writing 

Model 

## SKETCH OF MY SPACE'S IMPORTANT FEATURES:



# MY SPACE PLANNER

A planning worksheet to design my tour

## THE SPACE I AM GOING TO USE

## I AM GOING TO PRESENT MY TOUR BY

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- Space produces food     space improves the environment  
 Space produces fibre  
 Space encourages biodiversity     Other: \_\_\_\_\_

report, photo journal, audio tour, recorded tour\*, presentation, picture, model or other

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## THE IMPORTANT THINGS THAT I'LL HIGHLIGHT IN MY TOUR ARE:



Circle 4-5 items from the list:

plants	weather	animals	soil	technology
science	design	food that is made	people	seasons
varieties grown	day to day life	how much produce is produced		fibre that is produced

## SKETCH OF MY SPACE'S IMPORTANT FEATURES:

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## TEACHER - STEM RESOURCE PACK

As part of PIEFA's National Ag Day STEM Challenge, we have created a package of teaching resources. Access the activities for easy, engaging ways to incorporate food and fibre education into the classroom during your teaching programs.

### SCIENCE

Foundation: All about Pigs (ACSSU004)

Year 1: Colours of the Rainbow (ACSSU017)

Year 2: Growing and Changing (ACSSU030)

Year 3 and 4: Trees and Me - Paper Tower Challenge (ACSSU044) (ACSSU074)

Year 5: Adaptations in Cattle (ACSSU043)

Year 6: From Seed to Socks (ACSSU094) (ACSSU096)

### MATHEMATICS

Foundation: Numbers and Patterns on the Farm. (ACMNA002) (ACMNA005)

Year 1: Hooray for Horticulture Data Representation (ACMSP262) (ACMSP263)

Year 2: Fun with Fisheries Division and Multiplication (ACMNA031) (ACMNA032)

Years 3 & 4: Calculating Change with Cotton (ACMNA059) (ACMNA069) (ACMNA050) (ACMSP096)

Year 5: Graphing with Grains (ACMSP119)

Year 6: Sugar Cane Challenge Cards (ACMSP148) (ACMNA123) (ACMNA129) (ACMNA131) (ACMMG135)



Using WHEAT products

### An Animal Life Cycle

**Activity:**

Using either real pasta or cutouts of the pictures below, stick the correct shape of pasta onto the correct area of the life cycle picture.

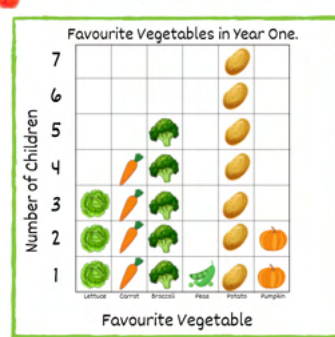
1. Find the pasta shape that looks most like eggs and stick it down on the template.
2. Find the pasta shape that looks most like a caterpillar and paste this onto your picture.
3. Next, find the pasta shape that looks like a cocoon (chrysalis) and attach this to your diagram.
4. Finally, find the butterfly shape to complete your life cycle picture.
5. You may like to also draw legs on your caterpillar and antennae on your butterfly.



### Hooray for Horticulture.

Horticulture is the farming of fruit, vegetables, nuts, flowers, turf and nursery products. To keep our bodies healthy we should try to eat two serves of fruit and five serves of vegetables each day.

The pictogram below shows the favourite vegetables of class of Year One students. Look at the graph to answer the questions at the bottom of the page.



Favourite Vegetable	Number of Children
Lettuce	2
Carrot	3
Broccoli	5
Peas	2
Potatoes	7
Pumpkin	2

Interpret the pictogram to answer the questions below:

1. Which vegetable is the most popular in this class?
2. Which vegetable is the least popular in this class?
3. How many people prefer carrots?
4. How many children prefer potatoes?

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## AUSTRALIAN CURRICULUM OUTCOMES

### Foundation

**Science:** Living things have basic needs, including food and water (ACSSU002)

Daily and seasonal changes in our environment affect everyday life (ACSSU004)

**Technology:** Explore how plants and animals are grown for food, clothing and shelter and how food is selected and prepared for healthy eating (ACTDEK003)

Generate, develop and record design ideas through describing, drawing and modelling (ACTDEP006)

**Mathematics:** Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond (ACMNA002)

Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings (ACMNA005)

### Year One

**Science:** Living things have a variety of external features (ACSSU017)

**Technology:** Explore how plants and animals are grown for food, clothing and shelter and how food is selected and prepared for healthy eating (ACTDEK003)

Generate, develop and record design ideas through describing, drawing and modelling (ACTDEP006)

**Mathematics:** Choose simple questions and gather responses and make simple inferences (ACMSP262)

Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays (ACMSP263)

### Year Two

**Science:** Living things grow, change and have offspring similar to themselves (ACSSU030)

**Technology:** Explore how plants and animals are grown for food, clothing and shelter and how food is selected and prepared for healthy eating (ACTDEK003)

Generate, develop and record design ideas through describing, drawing and modelling (ACTDEP006)

**Mathematics:** Recognise and represent multiplication as repeated addition, groups and arrays (ACMNA031)

Recognise and represent division as grouping into equal sets and solve simple problems using these representations (ACMNA032)

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## AUSTRALIAN CURRICULUM OUTCOMES

### Year Three

**Science:** Living things can be grouped on the basis of observable features and can be distinguished from non-living things (ACSSU044)

**Technology:** Investigate food and fibre production and food technologies used in modern and traditional societies (ACTDEK012)

Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques (ACTDEP015)

**Mathematics:** Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059)

Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies (ACMNA069)

### Year Four

**Science:** Natural and processed materials have a range of physical properties that can influence their use (ACSSU074)

**Technology:** Investigate food and fibre production and food technologies used in modern and traditional societies (ACTDEK012)

Generate, develop, and communicate design ideas and decisions using appropriate technical terms and graphical representation techniques (ACTDEP015)

**Mathematics:** Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA050)

Construct suitable data displays, with and without the use of digital technologies, from given or collected data. Include tables, column graphs and picture graphs where one picture can represent many data values (ACMSP096)



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## AUSTRALIAN CURRICULUM OUTCOMES

### Year Five

**Science:** Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)

**Technology:** Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy (ACTDEK021)  
Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques (ACTDEP025)

**Mathematics:** Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies (ACMSP119)

### Year Six

**Science:** The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)

Sudden geological changes and extreme weather events can affect Earth's surface (ACSSU096)

**Technology:** Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy (ACTDEK021)  
Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques (ACTDEP025)

**Mathematics:** Interpret secondary data presented in digital media and elsewhere (ACMSP148)

Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers (ACMNA123)

Multiply decimals by whole numbers and perform divisions by non-zero whole numbers where the results are terminating decimals, with and without digital technologies (ACMNA129)

Make connections between equivalent fractions, decimals and percentages (ACMNA131)  
Connect decimal representations to the metric system (ACMMG135)

# PIEFA MEMBERS RESOURCES

Check out the PIEFA Members Resources below to learn more about specific food and fibre industries.



Wine  
Australia  
for  
Australian  
Wine

**Hort  
Innovation**



**CB Alexander  
FOUNDATION  
TOTAL**



**nsw  
FARMERS** Growing  
the best

**Forest & Wood  
Products Australia**



**Australian Council of  
Deans of Agriculture**