

ACTIVITY SHEET A GARDEN AUDIT 

DIRECTIONS

Visit your garden area and make some observations below. As you make notes, think about the choices that people have made when creating the garden and why they may have designed it this way.

PATHWAYS

Widest path (width in metres): _____ Narrowest path (width in metres): _____

What material(s) are the paths made from? _____

GARDEN BEDS

Number of beds: _____

Height of lowest garden bed: _____

Height of tallest garden bed: _____

What materials are they made from? _____

Draw one of the garden beds below, and write down its measurements.

ACTIVITY SHEET

A GARDEN AUDIT

TICK THE APPROPRIATE BOX:

WASTE MANAGEMENT

Item	Yes	No
Compost bays (large)		
Compost bin (smaller)		
Earthworm farm		
Chickens or other animals		

What is the main way organic material is recycled?

WATER SOURCES

Item	Yes	No
Tap (mains)		
Pond		
Rainwater tank		
Bore irrigation		
Mains water irrigation		
Greywater reuse		
Hand watering		

What are some advantages of using rainwater tanks?

UTILITIES AND STRUCTURES

Which of these can be found in your garden?

Item	Yes	No
Toolshed or enclosure		
Flower pots		
Potting bench		
Garden seats		
BBQ or pizza oven		

Item	Yes	No
Gazebo		
Trellis		
Quiet space/area		
Nursery/propagation area		
Shadehouse/hothouse		

PLANTS

List examples of the following plants you find in the garden.

Large, shady trees: _____

Herbs: _____

Fruits and vegetables: _____

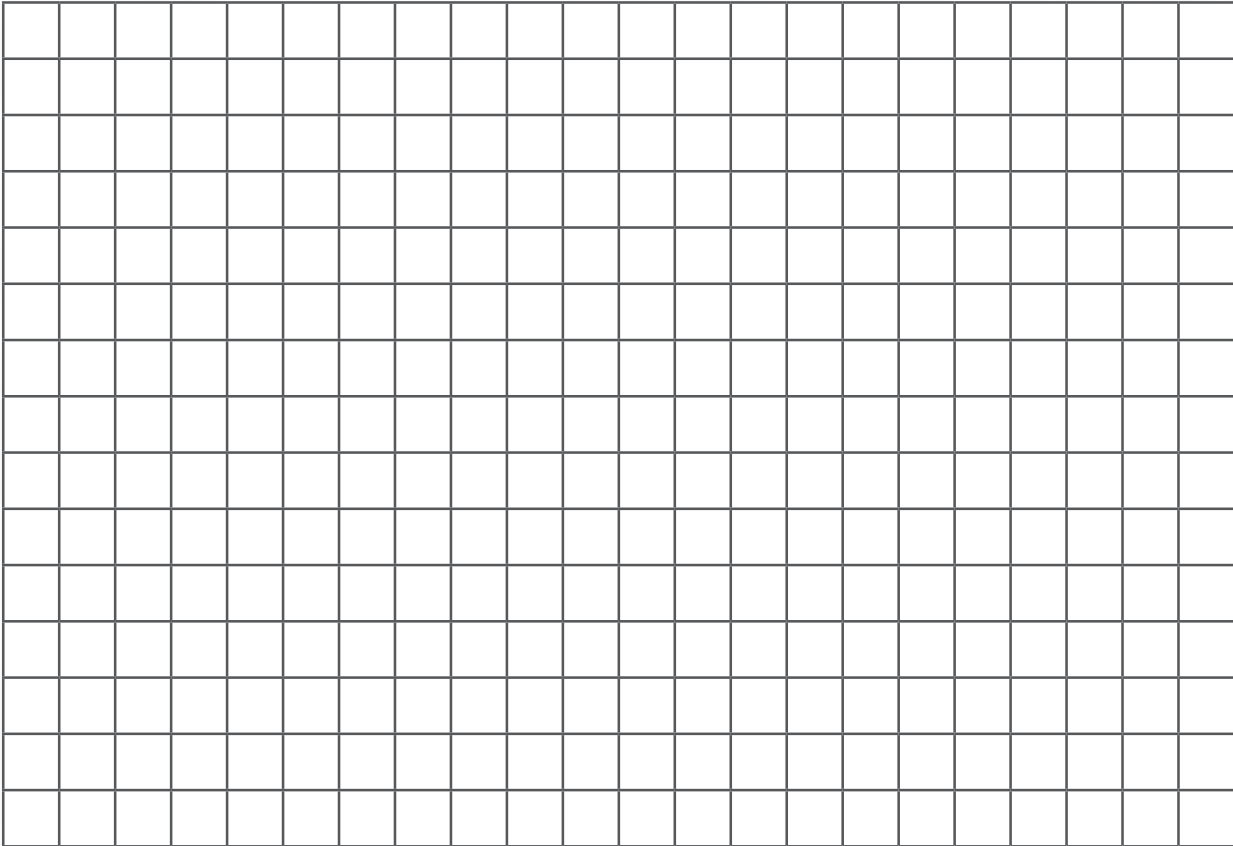
Other plants: _____

ACTIVITY SHEET 

DESIGN A GARDEN

DIRECTIONS

Use the grid to create a birds-eye view diagram of your very own garden. Remember to add a scale at the bottom of the grid to show the actual size of objects on the map



= _____ m²

Describe some of the features of your garden and why you have chosen to design it this way.

ACTIVITY SHEET

ACTIVITY CARDS: WHAT DO PLANTS NEED?

SUNLIGHT

1. Place one seedling in each cup. Cover it with 1 cm of soil.
2. Add one or two teaspoons of water to each cup.
3. Use a texta to label one cup 'sunlight' and the other 'no sunlight'.
4. Place the 'sunlight' cup in a sunny spot, like a classroom window sill or somewhere outside.
5. Place the 'no sunlight' cup in a dark cupboard.
6. Add water to the cups over the next two weeks.

NUTRITION

1. Place one seedling in each cup.
2. Add 1 cm of soil to **one cup only**. Do not place any soil in the other cup.
3. Add one or two teaspoons of water to each cup.
4. Use a texta to label the cup with 'soil' and the other 'no soil'.
5. Place both cups in a sunny spot, like a classroom window sill or somewhere outside.
6. Add water to the cups over the next two weeks.

ACTIVITY SHEET

WATER

1. Place one seedling in each cup. Cover it with 1 cm of soil.
2. Add one or two teaspoons of water to only one cup.
3. Use a texta to label one cup 'water' and the other 'no water'.
4. Place both cups in a sunny spot, like a classroom window sill or somewhere outside.
5. Add water to the 'water' cup over the next two weeks.

TEMPERATURE

1. Place one seedling in each cup. Cover both with 1 cm of soil.
2. Add one or two teaspoons of water to both cups.
3. Use a texta to label one cup 'warm' and the other 'cold'.
4. Place the 'warm' cup on a classroom shelf that doesn't receive direct sunlight. Place the 'cold' cup in a refrigerator or an esky which is kept cold with an ice pack.
5. Add water as needed to both cups over the next two weeks.

AIR

1. Place one seedling in each cup. Cover it with 1 cm of soil.
2. Add one or two teaspoons of water to both cups.
3. Use a texta to label one cup 'air' and the other 'no air'.
4. Place the 'no air' cup in a zip-lock bag. Add one teaspoon of activated charcoal to the bag (not in the cup). Zip the bag about half way, then squeeze as much air as you can out of the bag. Close the bag completely.
5. Place both cups in a sunny spot, like a classroom window sill or somewhere outside.
6. Add water to the cups over the next two weeks.

ACTIVITY SHEET

EVAPORATION

PREDICTION

Which jar do you think will lose the most water? _____

RESULTS

Measure the water level of your jars using a ruler a few times during the day. Each time you measure, write down the time and the water level in each jar.

JAR WITH LID

TIME	WATER LEVEL (MM)

JAR WITH NO LID

TIME	WATER LEVEL (MM)

CONCLUSION

Tick which jar had the least water at the end of the experiment: Jar with lid Jar with no lid

Why did one jar lose more water than the other? _____

ACTIVITY SHEET

COMPARING MULCHES

DIRECTIONS

Choose three mulches to test and compare them to the temperature of the soil with no mulch.

Describe the three mulches that you are going to test:

Mulch 1: Organic Inorganic

Made from: _____

Mulch 3: Organic Inorganic

Made from: _____

Mulch 2: Organic Inorganic

Made from: _____

What time will you be testing your soil every day? _____

DATE	OUTSIDE TEMPERATURE	SOIL TEMPERATURE (NO MULCH)	SOIL 1 TEMPERATURE	SOIL 2 TEMPERATURE	SOIL 3 TEMPERATURE

RESULTS

Make a line graph of your results here. Use a different colour for each soil sample (including the soil with no mulch). Add a scale for the temperature and day. Colour the appropriate boxes to make a key.

Temperature

Day

Key:

No Mulch

Mulch 1: _____

Mulch 2: _____

Mulch 3: _____

CONCLUSION

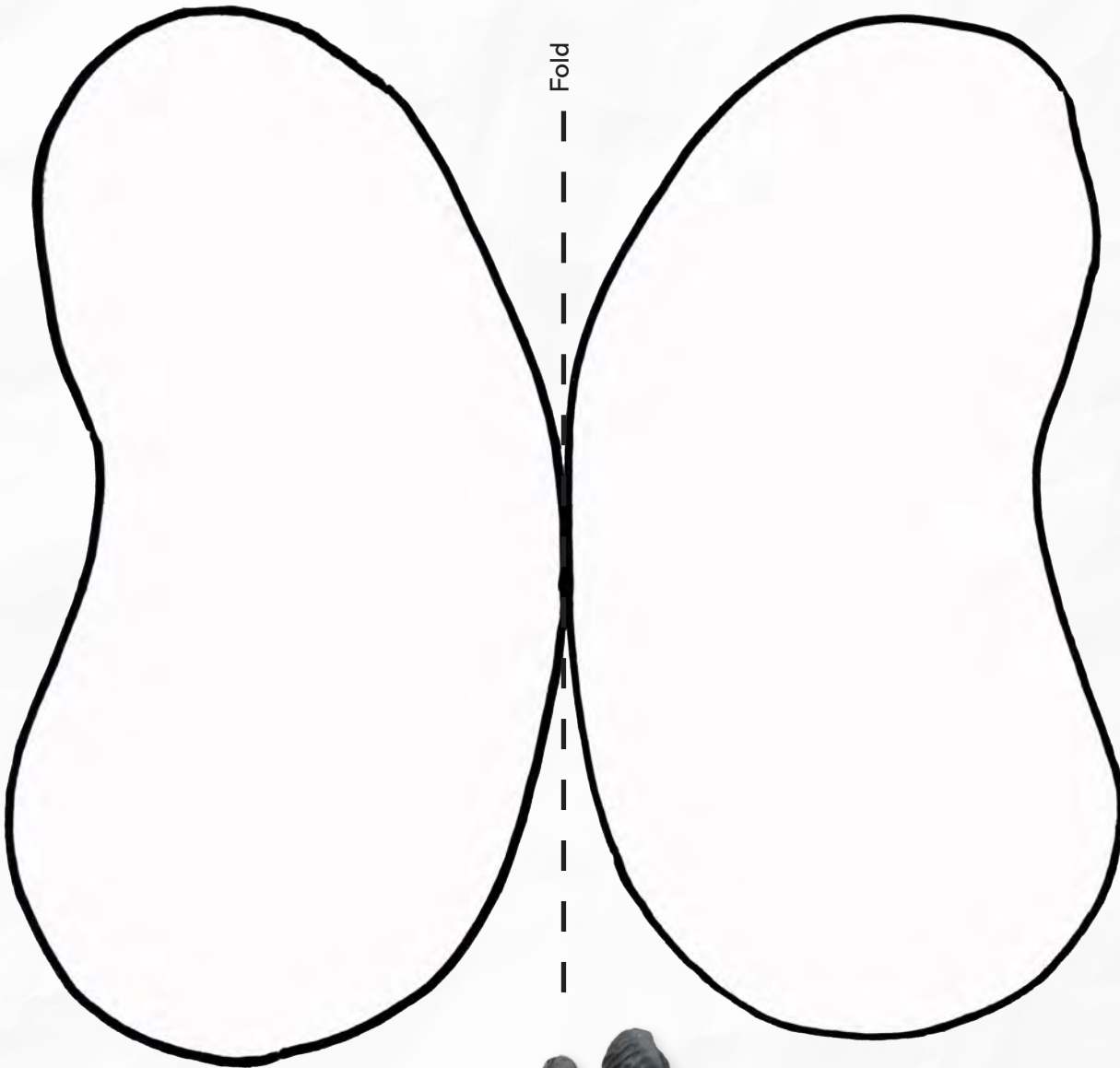
Which mulch kept the soil coolest? _____

Was there a mulch that showed the least change in temperature? _____

ACTIVITY SHEET

WHAT'S INSIDE A SEED?

Cut out the seed template below and fold it down the middle. On the inside, draw and label what you found when you opened up your seed. On the outside, write some definitions of the parts of a seed that you labelled.



PART 3

ACTIVITY SHEET

PLANTING DIARY

Use the planting diaries to help students keep track of one or more garden plants. For example, drawing a picture of the plant's location may take the form of a simple drawing or a bird's eye view of the garden or garden bed. To measure the height of a plant, simply use a ruler or measuring tape positioned at the base of the plant. For older students, growth rate can be charted as a line or column graph. The diary can also be used to record observations from other activities in this book. The template on page 49 can be used as an in-depth case study of one plant and might be used by older students. A larger template on page 138 enables a broader snapshot of many plants.

PLANTING DIARY

PLANT NAME

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PLANTED BY

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ON

Go to page 138 for the diary template

DATE:

HEIGHT: **CENTIMETRES**

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DATE:

HEIGHT: **CENTIMETRES**

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DATE:

HEIGHT: **CENTIMETRES**

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DATE:

HEIGHT: **CENTIMETRES**

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DATE:

HEIGHT: **CENTIMETRES**

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PART 3

ACTIVITY SHEET

PLANTING DIARY

DIRECTIONS

Fill in the information below and check your plant regularly (around once a week). Include the date, your observations of the plant and any other relevant information (for example, whether you watered the plant, or had to deal with problems like pests attacking your plant). You may also wish to take photos or draw pictures of parts of your plant (for example, any flowers it grows, or any damage done by pests).

PLANT NAME: _____ SEED OR SEEDLING

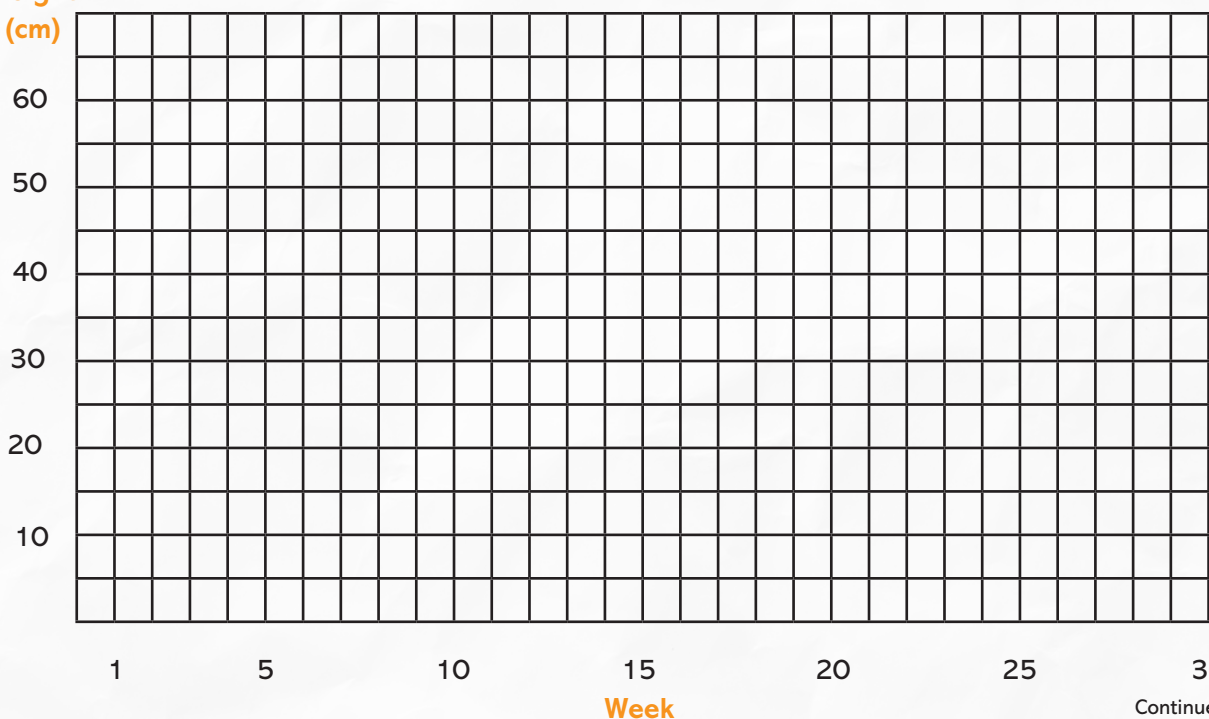
DATE PLANTED: _____ TYPE OF MULCH USED: _____

Draw your plant's location in the garden bed and label any nearby plants.

GROWTH RATE

Create a line graph to track your plant's growth over time

Height
(cm)



Continued...

ACTIVITY SHEET

PLANTING DIARY

DATE	OBSERVATIONS	PICTURE

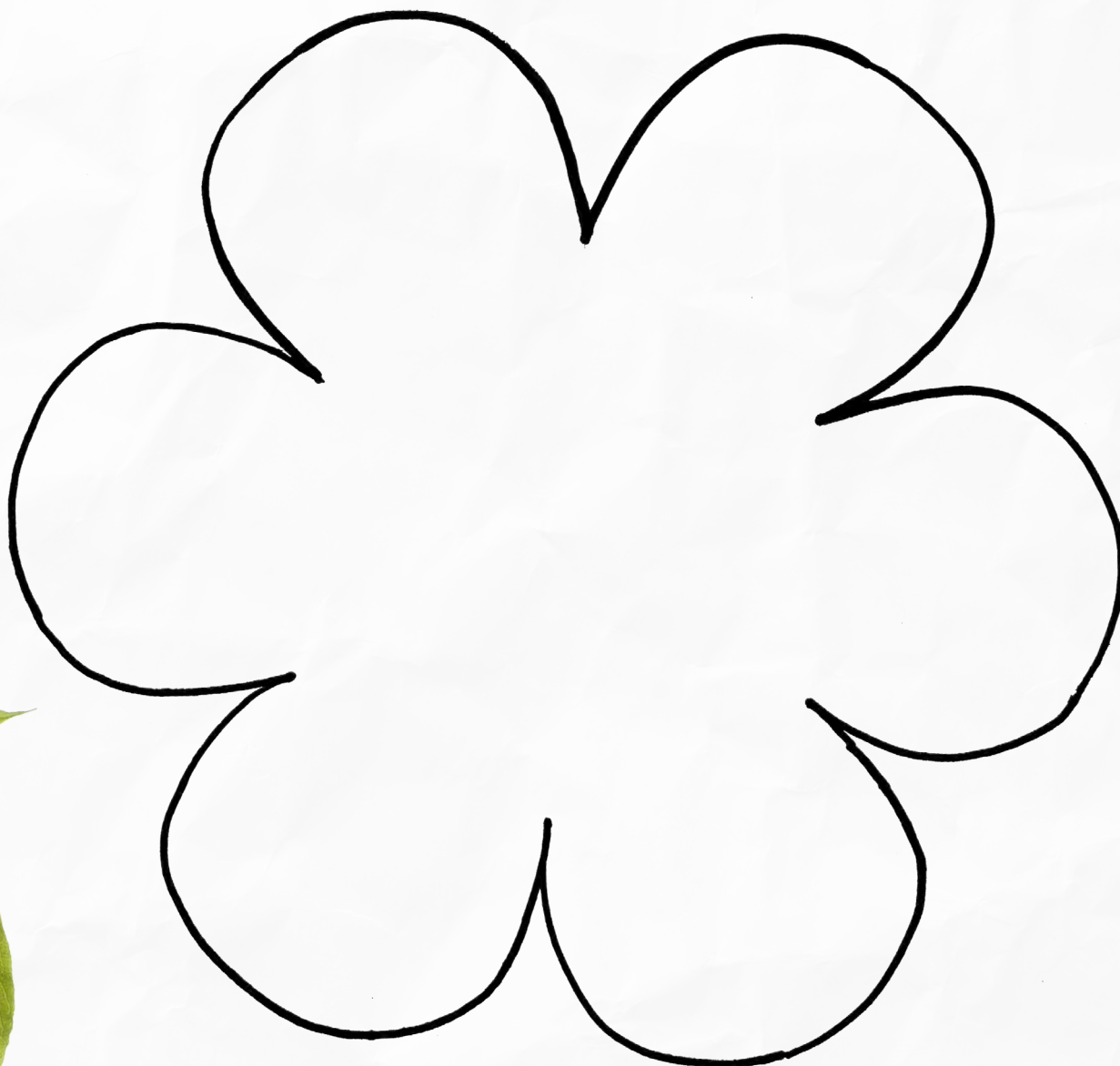
PART 3



DESIGN A FLOWER!

DIRECTIONS

Colour and cut out the flower below. Add a bottle cap with your bait to the centre and attach it to a dowel or skewer with tape. Place it in the garden to attract some friendly butterflies!



PART 3

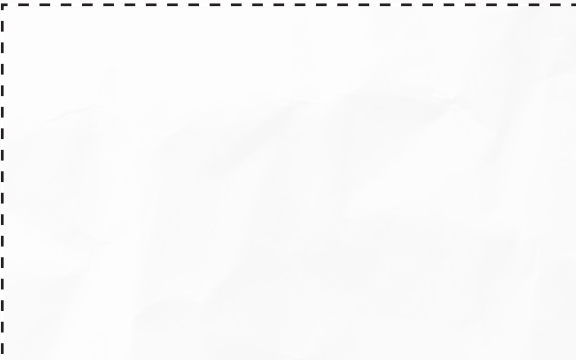
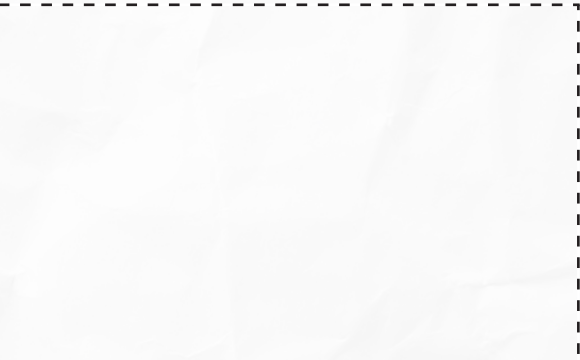
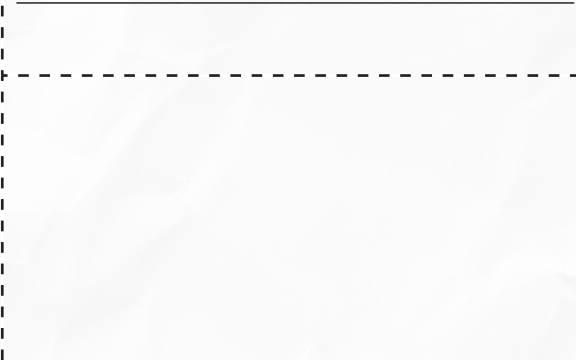
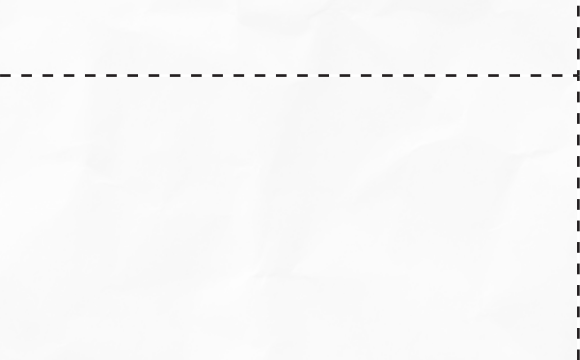
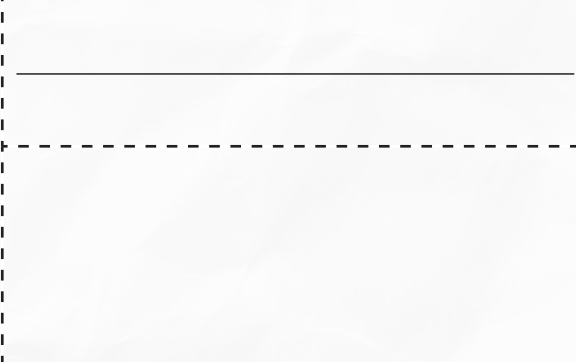
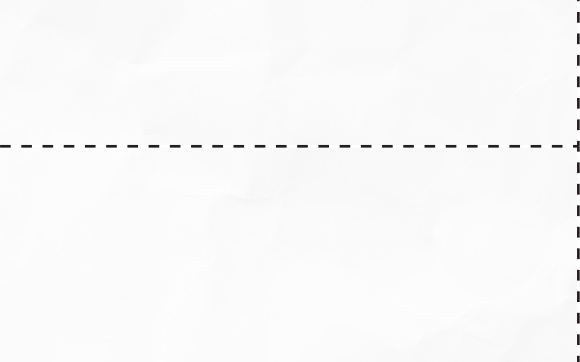
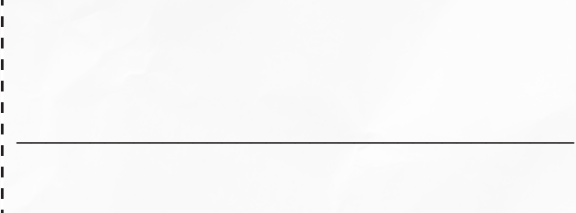



ACTIVITY SHEET

FRUIT FLASH CARDS

DIRECTIONS

Draw the fruit you have seen in the boxes on the left. Write the name of each fruit on the line. In the box on the right, draw what its seeds look like. Cut along the dotted lines and then fold along the solid line. Glue together so that the fruit and seeds appear on opposite sides of the card.

FRUIT	Fold	SEED
		
		
		
		



Continued...

ACTIVITY SHEET

FRUIT

Fold

SEED

PART 3

ACTIVITY SHEET

INSTRUCTION CARDS

Cut out each card and give one to each group member

SPECIES 1

Round 1:

Only eats green food.
You need at least 6 pieces to survive.

Round 2:

Eats any colour of food but you can only take food from other species' cups.
You need at least 6 pieces to survive

Round 3:

Eats any colour of food, but you may only pick up blue food.
You need 2 of each colour to survive.

Round 4:

Eats blue and green food.
The red food is harmful. Before gathering your own food, you must first collect all the red food and place it outside the bowl.
You need at least 6 pieces to survive.

SPECIES 2

Round 1:

Only eats blue food
You need at least 6 pieces to survive.

Round 2:

Eats blue and green food.
You need at least 6 pieces to survive.

Round 3:

Eats any colour of food, but you may only pick up green food.
You need 2 of each colour to survive.

Round 4:

Only eats blue food.
The red food is harmful. Before gathering your own food, you must first collect all the red food and place it outside the bowl.
You need at least 6 pieces to survive.

SPECIES 3

Round 1:

Only eats blue food
You need at least 6 pieces to survive.

Round 2:

Eats green and red food.
You need at least 6 pieces to survive.

Round 3:

Eats any colour of food, but you may only pick up red food.
You need 2 of each colour to survive.

Round 4:

Only eats red food. You can only pick up red food when they are placed outside of the bowl.
You need at least 6 pieces to survive.

SPECIES 4

Round 1:

Only eats green food
You need at least 6 pieces to survive.

Round 2:

Eats blue and yellow food.
You need at least 6 pieces to survive.

Round 3:

Eats any colour of food, but you may only pick up yellow food.
You need 2 of each colour to survive.

Round 4:

Only eats red food. You can only pick up red food when they are placed outside of the bowl.
You need at least 6 pieces to survive.

ACTIVITY SHEET

ANIMAL INTERACTIONS SIMULATION

DIRECTIONS

At the end of each round, write down the relationship between each species. The word bank below will remind you of the different types of animal interactions.

COMPETITION

PARASITISM

MUTUALISM

COMMENSALISM

NO RELATIONSHIP

Round 1: Name the relationship between:

Species 1 and 2: _____

Species 1 and 4: _____

Species 1 and 3: _____

Species 2 and 4: _____

Species 2 and 3: _____

Species 3 and 4: _____

Did all species survive? _____

What made survival difficult during this round? _____

Round 2: Name the relationship between:

Species 1 and 2: _____

Species 1 and 4: _____

Species 1 and 3: _____

Species 2 and 4: _____

Species 2 and 3: _____

Species 3 and 4: _____

Did all species survive? _____

What made survival difficult during this round? _____

Continued...

ACTIVITY SHEET

ANIMAL INTERACTIONS SIMULATION

COMPETITION

PARASITISM

MUTUALISM

COMMENSALISM

NO RELATIONSHIP

Round 3: Name the relationship between:

Species 1 and 2: _____ Species 1 and 4: _____

Species 1 and 3: _____ Species 2 and 4: _____

Species 2 and 3: _____ Species 3 and 4: _____

Did all species survive? _____

What made survival difficult during this round? _____

Round 4: Name the relationship between:

Species 1 and 2: _____ Species 1 and 4: _____

Species 1 and 3: _____ Species 2 and 4: _____

Species 2 and 3: _____ Species 3 and 4: _____

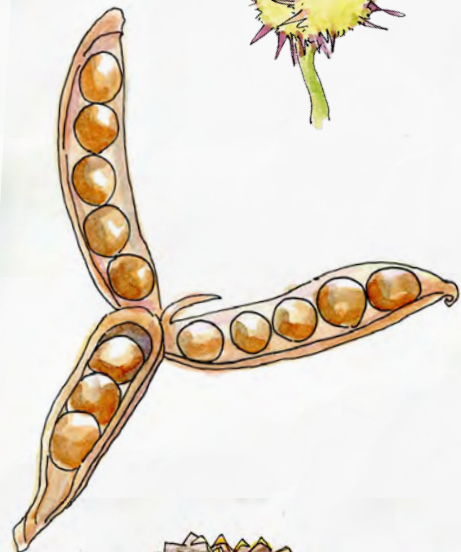
Did all species survive? _____

What made survival difficult during this round? _____

ACTIVITY SHEET

SEED DISPERSAL

Flowering plants produce seeds that have adaptations to give them the best chance of spreading to other areas. Examine the drawings of the following seeds and decide whether they are dispersed by wind, water, animal or explosive mechanisms. Discuss your answers with the class.



ACTIVITY SHEET

DESIGN A SEED



1. Create a labelled sketch of your model below.

How my seed(s) will travel: _____

Materials I need to make this model: _____

2. Have a look at your classmates' seed models. Draw some of them below and guess how their seed travels. Label the features of the seed that helped in your guess.

APPENDIX – PLANTING DIARY

PLANTING DIARY

PLANT NAME

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PLANTED BY

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ON

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HEIGHT: CENTIMETRES

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HEIGHT: CENTIMETRES

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DATE:

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DATE:

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APPENDIX – PLANTING DIARY

<p>HEIGHT: CENTIMETRES</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>HEIGHT: CENTIMETRES</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
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