



Indicative A response

Insect designer

Years 1–2 Technology

Checklist

Put a tick for your rating:				
Investigate				
I tested lots of different materials and tools.	✓			
I chose the best materials and tools for my model.	✓			
Design				
My insect has 6 legs and 3 body parts.	✓			
The legs and wings all join to the thorax.	✓			
I made a labelled design drawing.	✓			
I planned the steps for making the model.	✓			
Produce				
I finished making my model.	✓			
My model is strong.			✓	
My model looks like my design.	✓			
Evaluate				
I found ways to improve my design.	✓			
My best improvement was: I couldn't tie the loose ends of the cotton, but then I found that wood glue did it easily.				
I saw this good design idea on someone else's model: Tim made really good wings by bending a wire shape and covering it with Gladwrap.				

Investigate tools and materials

How do you join materials?

	Material 1		Material 2		Joining method		Result
To join	cardboard	to	paddlepop stick	I used	wood glue	and found that	it's really strong.
To join	googly eyes	to	plastic bottle	I used	glue stick	and found that	they fall off.
To join	foam	to	kebab stick	I used	tie with string	and found that	it's strong but the ends are hard to tie.
To join	leaves	to	foam	I used	Blu-tack	and found that	it sticks but it's not strong.
To join	cardboard	to	egg carton	I used	staples	and found that	it's too thick and the staples don't always go through.

Investigate tools and materials

Which tool is best?

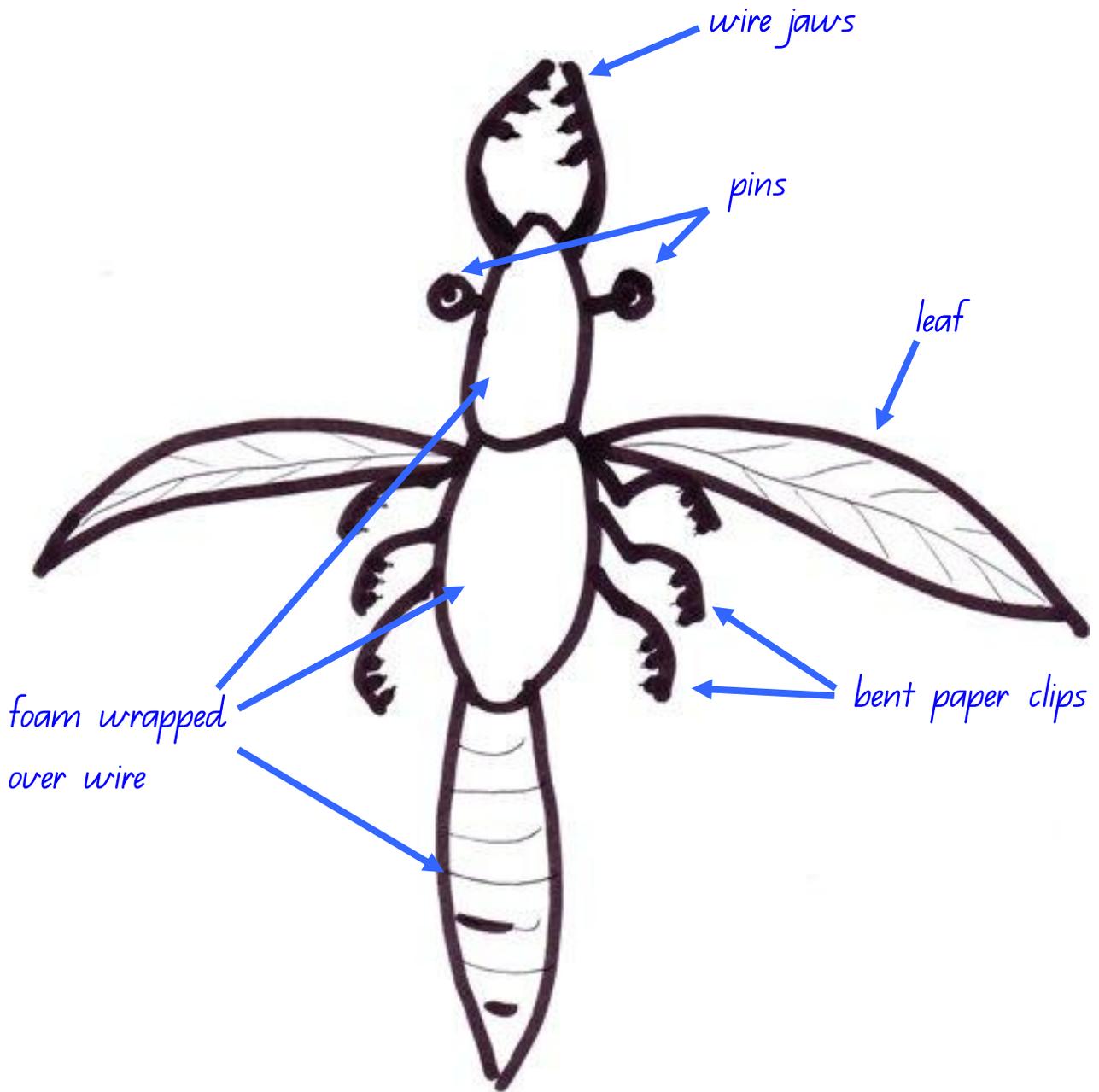
	tool		task		material		result
I used	scissors	to	cut	some	cardboard	and found that	you have to use the big scissors.
I used	pliers	to	bend	some	wire	and found that	it's easy to make fancy shapes.
I used	sandpaper	to	smooth	some	wood	and found that	it makes lots of dust.
I used	a brush	to	paint	some	egg carton	and found that	the big brushes work best because lots of paint soaks in.

Design

What materials will I use?

What materials will I use for my insect model?					
	model part		material		reason
I will make the	legs	out of	wire	because	it's easy to bend the shapes.
I will make the	body	out of	foam wrapped over wire	because	I can shape it by bending and wrapping with cotton.
I will make the	wings	out of	leaves	because	they are already the right shape and colour.
I will make the	eyes	out of	pins	because	they are easy to stick in and they look real.
I will make the	jaws	out of	wire	because	they can be the ends of the piece I use for the body.

Design drawing



Produce

How will you make your model?

Step	What to do	Tools and materials
1.	First, I will bend a piece of wire double and bend the ends into jaws.	wire pliers
2.	Cut foam and wrap it over the wire. Wrap cotton thread over the foam to hold it in place. Wrap it tighter at the joins between body sections.	scissors fruit packing foam cotton thread
3.	Then I will poke three paper clips through the body and bend into leg shapes.	three paper clips pliers
4.	Put leaves in place for wings and wrap ends with cotton.	two leaves cotton
5.	Poke pins in head for eyes.	two pins

Completed model



Evaluate and reflect

Reflecting

Think about what you have learnt, then write or talk about these questions:

What did you learn about joining materials?

Wrapping with cotton is an easy way to shape foam, and it's strong.
It's hard to join wire to anything else.
Glue-sticks don't work on plastic or wire.

What did you learn about using tools?

Wire is really easy to bend if you use pliers, but it's still a bit hard to cut.

What did you learn about designing?

It was easier to make a model after I had drawn a good design.
It's hard to make the model exactly like the drawing.

What was the hardest part of making your model?

Bending the wire legs into the right shape.
I didn't find a way to stop the legs from wobbling.

If you made another model, what would you do differently?

I would twist the legs onto the body wire first instead of trying to stick them on later.
I wouldn't use leaves because after a few days they went brown and curled up.
I would remember to give the insect some antennae.