

**CALLING ALL
PLASTIC INVESTIGATORS!**

**WELCOME TO
THE P.I.CLUB**



This PI Club Handbook belongs to:

Special Agent

.....

Joining date:

.....



Your PI Mission Diary

Welcome, PI Special Agent! We hope you're ready for an exciting adventure!

There are seven missions for you to complete. Your teacher will tell you what to do and give you any help you need. As you finish each mission, remember to tick it off in the diary below. Good luck!

Mission	Outcomes	Done?
Mission 1: Materials hunt	I can compare materials, recognise plastic and know some of its properties.	
Mission 2: Undercover plastic	I can explain why plastic is a useful material and know that while some plastic objects are only used once, others last for a long time.	
Mission 3: Plastic – hero or villain?	I understand that although plastic is useful, plastic waste is causing serious problems for our planet. I want to do something to help.	
Mission 4: My personal pledge	I know one action I am going to take to help tackle the problem of plastic waste.	
Mission 5: The recycling mystery	I can explain why recycling is useful and know the steps involved in recycling plastic.	
Mission 6: Recycling plastic in our area	I know some important facts about recycling plastic in our area.	
Mission 7: The competition	I have created an entry for the competition.	

Have you completed all your missions?

Congratulations!

You're a PI Club Super Agent!



Mission 1: Materials hunt

What can you find in the classroom made of wood, glass, plastic, metal and paper or card? Write down the names of objects. Can you match each material to its properties? You can also add your own properties to describe the objects you find.

Material	Objects in the classroom
Wood	
Glass	
Plastic	
Metal	
Paper or card	
Other	

STRONG

WEAK

HEAVY

LIGHT

ROUGH

SMOOTH

SHINY

DULL

HARD

SOFT

PROTECTIVE (and prevents food waste)

BRITTLE (hard but easily broken)

TRANSPARENT (see through)



OPAQUE (not see through)

MAGNETIC

NON-MAGNETIC

Mission 2: Undercover plastic

Look carefully at the three plastic objects your teacher has given you. What are they used for? Why is plastic a good choice of material in each case?

Draw the object	What is it used for?	Why is it made of plastic?
		
		

How many times do you think the objects would be used?

What would you do with the objects when you didn't need them anymore?

.....

Extension: Can you think of another material that could be used?

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Mission 3: Plastic – hero or villain?

Because plastic is so brilliant, we're using more and more of it. The problem is that we're also throwing lots and lots of it away.

Over 12 million tonnes of plastic waste ends up in the oceans every year. It is estimated that by 2050 there will be more plastic in the ocean than fish.



I think plastic is a hero because:

However, I think plastic is a villain because:

As a PI Club Special Agent, I understand how useful plastic is, but I also know about the problems plastic waste causes.

I'm going to think about what I can do to help make a difference.

Mission 4: My personal pledge



My pledge to use less plastic

From now on, I am going to use less plastic by:

.....

.....

.....

.....

Signed:

Special Agent:

Date:

Mission 5: The recycling mystery

Why does recycling matter?

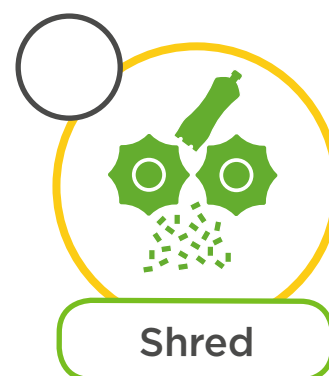
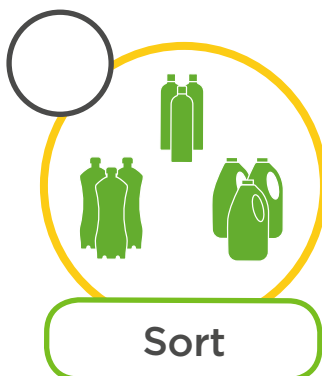
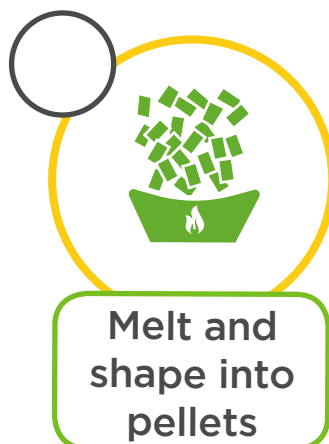
Can you fill in the gaps?

1. Recycling saves! We don't have room to keep dumping rubbish.
2. Recycling saves! The Earth only has a fixed amount of materials like oil and coal.
3. Recycling saves! Making new products from recycled materials uses less energy than making them from new materials.



How is plastic recycled?

Can you number the pictures in the correct order, with 1 being the first step and 6 the last?



Extension: Design a product you could make from recycled plastic.

Mission 6: Recycling plastic in our area

I have found out the following important facts about recycling plastic in our area:

1.
.....
2.
.....
3.
.....
4.
.....
5.
.....
6.
.....

Extension: Create a short rhyme or jingle to help you remember the steps you need to take to recycle plastic in your area.