

Name _____

Class _____

Date _____

By the end of this worksheet I can...

- ☐ use mind maps, brainstorming and Crazy 8s
- ☐ use SCAMPER, random words and worst possible idea
- ☐ think laterally and borrow ideas from nature or other industries

I DO

Worked example Read how a full-mark answer is built

Brief: reduce the amount of food wasted in your school canteen.

1 Use SCAMPER to generate three different ideas. Name the letter used for each. (3 marks)

Full-mark answer each ✓ is one mark

Substitute: smaller plates so pupils take less food ✓. Eliminate: remove trays so people only carry what they'll eat ✓. Put to another use: leftover bread goes to a community fridge or is made into croutons ✓.

Why marks are not awarded

"Smaller plates, smaller plates in a different colour, smaller bowls."

1 point: ideas are all variations of one idea and no SCAMPER letters are named.

WE DO

Guided practice Use the starters and word bank to help you

You want ideas for a reusable water bottle that encourages pupils to drink more.

2 Explain how biomimicry could inspire ideas. (2 marks)

Sentence starters

One reason is ... because ...

Another reason is ... so ...

Word bank

Brief · problems · Biomimicry · copying · nature · solves · linked · cactus

Tip: 2 marks = 2 separate, developed points.

YOU DO

On your own No notes. Check your answers afterwards.

3 Quick check: tick one box for each.

- a) Velcro was inspired by burrs sticking to a dog. This is an example of...
☐ Reverse brainstorming ☐ Converging ☐ A survey ☐ Biomimicry
- b) What is the first rule of brainstorming?
☐ No judging ☐ Only good ideas ☐ Work alone ☐ Pick one quickly
- c) Which technique asks you to sketch eight ideas in eight minutes?
☐ Mind map ☐ SCAMPER ☐ Crazy 8s ☐ Six hats
- d) In SCAMPER, what does the E stand for?
☐ Evaluate ☐ Eliminate ☐ Explore ☐ Expand

4 Key terms: write the letter of the matching description next to each term.

- | | | |
|--------------------------|-------|---|
| 1. Crazy 8s | _____ | A Force a link between a random word and the problem |
| 2. SCAMPER | _____ | B Generate terrible ideas, then flip them into good ones |
| 3. Worst possible idea | _____ | C Eight different ideas sketched in eight minutes |
| 4. Reverse brainstorm | _____ | D Combine one option for each feature to make new ideas |
| 5. Random word technique | _____ | E How could we make it worse? Then reverse the answers |
| 6. Morphological chart | _____ | F Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Reverse |

Your group has run out of ideas for a library redesign.

5 Describe how you would run a "worst possible idea" session. (3 marks)

6 Explain what is meant by 'Lateral thinking'. (2 marks)

7 Explain what is meant by 'Biomimicry'. (2 marks)

Check and reflect

Mark your answers with the answer sheet. Go back to the checklist on the site and re-rate each "I can" statement above. Which one still needs work?
