

NAME: _____ FORM/GROUP _____

DESIGN AND TECHNOLOGY REVISION BOOKLET

3

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS <https://www.facebook.com/groups/254963448192823/> www.technologystudent.com © 2017 V.Ryan © 2017

SMART MATERIALS AND MODERN MATERIALS

AROMA PIGMENTS
PHOSPHORESCENT PIGMENT
METAL FOAMS AND THEIR PRACTICAL APPLICATION
FLEXI PLY (A FLEXIBLE FORM OF PLYWOOD

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SUITABLE REVISION MATERIAL FOR:

PRODUCT DESIGN
RESISTANT MATERIALS
GRAPHIC PRODUCTS
DESIGN AND TECHNOLOGY

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AROMA PIGMENTS

LINK TO HELP AND INFORMATION

<https://www.technologystudent.com/joints/aroma1.html>

1a. What are Aroma Pigments? **3 marks**

1b. How do aroma stickers work? (You should mention micro-spheres in your answer).
3 marks

1c. Describe a practical application of an aroma pigmented sticker. Include a diagram to explain the practical application. **3 marks sketch(s) 3 marks notes**

AROMA PIGMENTS - CONTINUED

LINK TO HELP AND INFORMATION

<https://www.technologystudent.com/joints/aroma1.html>

2a. Briefly describe two other ways in which aroma pigments can be used. **2x 2 marks**

A.

B.

2b. How could aroma pigments be used in a practical situation outdoors?(Not inside or in an enclosed area). Use a diagram(s) and notes to explain your practical application of aroma pigments. This should be a new practical application. **4 marks sketch(s) 4 marks notes**

SKETCH(S)

NOTES

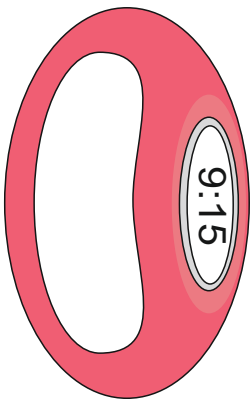
SMART MATERIALS - PHOSPHORESCENT PIGMENT - QUESTIONS

LINK TO HELP AND INFORMATION https://www.technologystudent.com/joints_flsh/phosphor1.html

3a. What is phosphorescence? Include a description of a practical example / application in your answer. **5 marks**

3b. What are phosphorescent pigments made from ? **3 marks**

3c. The sports watch shown opposite contains phosphorescent pigment. How will this effect the product? **2 marks**



3d. The safety signs shown opposite are phosphorescent. Why is this an important feature? **2 marks**



METAL FOAMS AND THEIR PRACTICAL APPLICATION

LINK TO HELP AND INFORMATION https://www.technologystudent.com/joints_flesh/metalfoam1.html

4a. What is the structure of a metal foam? Use notes and a diagram / sketch in your answer. **6 marks**

NOTES

SKETCH

4b. Briefly, Describe / explain the physical properties of metal foams. **4 marks**

4c. Describe two practical applications of metal foams. Use notes and sketches. **2 x 3 marks**

NOTES:

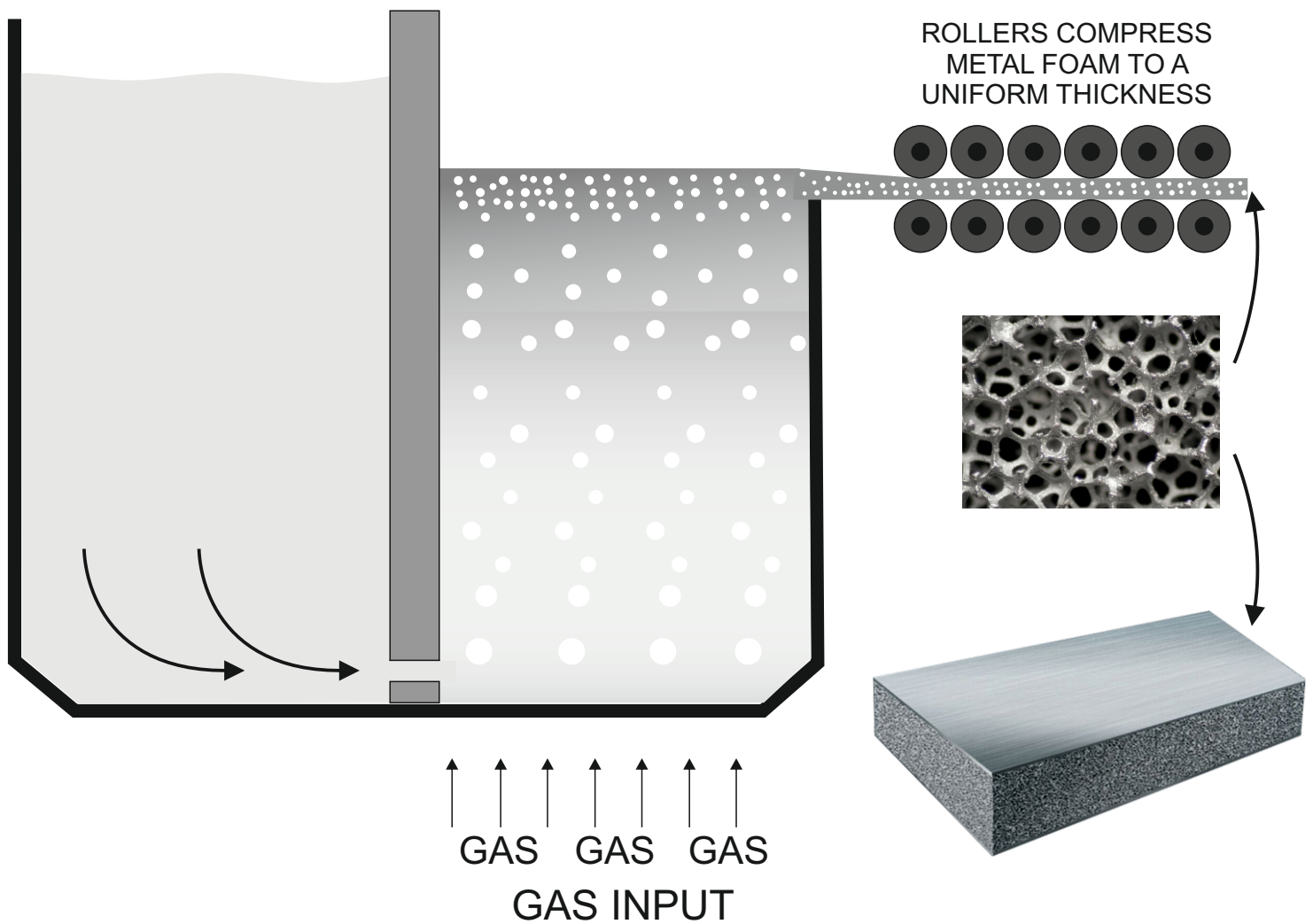
SKETCHES

METAL FOAMS AND THEIR PRACTICAL APPLICATION

LINK TO HELP AND INFORMATION https://www.technologystudent.com/joints_fish/metalfoam2.html

5. Complete the explanatory notes, diagram and labels, showing the manufacture of Aluminium Metal Foam. **14 marks**

PRIMARY TANK	SECONDARY TANK	ROLLERS
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
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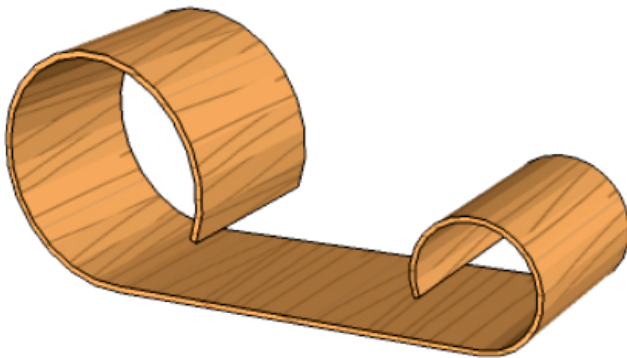


FLEXI PLY (A FLEXIBLE FORM OF PLYWOOD)

LINK TO HELP AND INFORMATION

https://www.technologystudent.com/despro_fish/flexply1.html

6a. Describe the main advantage of flexi ply, over other forms of manmade boards? Use notes and sketches in your answer. 3 marks notes **3 marks sketche(s)**



6b. Describe how the permanent form/shape seen opposite, could be manufactured from several layers of flexi ply. Use labelled sketches and notes. **3 marks notes 3 marks sketch(s)**

6c. Using the Internet, collect four images of pieces of furniture, manufactured from flex ply. For each piece of furniture, write your thoughts on the design. **2 x 4 marks**