

	TECHNOLOGIES 2nd ESO		School Year:	
	Scales activities - II		2 ESO	Group:
	Name:		Date:	

1. What do we need scales for?
2. Define the concept of Scale.
3. Scales can be used in three different situations. What are they?
4. Make two different copies of the following drawing. The first one must be done using a 1:2 scale and the second one must be 2:1.



5. A key has been drawn using a 5:1 scale. Answer the following questions:
 - a. Is it a reduction or an enlargement scale? Why?
 - b. Is the drawing bigger or smaller than the real object?
 - c. If the real key is 6 cm long. How long will it be in the drawing?
 - d. If the drawn key is 12 mm thick. How thick will the real key be?
6. A door knob has been drawn using a 1:1 scale. Answer the following questions:
 - a. Is it a reduction or an enlargement scale? Why?
 - b. Is the drawing bigger or smaller than the real object?
 - c. If the real knob is 50 mm long, how long will it be in the drawing?
 - d. If the drawn knob is 50 mm wide, how wide will the real knob be?
7. A computer plan has been drawn using a 1:5 scale. Answer the following questions:
 - a. Is it a reduction or an enlargement scale? Why?
 - b. Is the drawing bigger or smaller than the real object?
 - c. If the computer in the drawing is 200 mm high, how high will the real computer be?
 - d. If the computer's drawing is 60 mm wide, how wide will the real computer be?
 - e. If the real computer is 600 mm Deep, how deep will the computer's drawing be?

8. The Sears Tower is a skyscraper in Chicago 108 floors and 443 meters high.
- a. Decide what standardized scale you must use if you are trying to draw the Sears Tower using an A4 drawing sheet.
 - b. Will you be using the paper in a landscape or a portrait orientation? Why?
 - c. How tall will the tower be in your drawing?
(Dimensions for an A4 drawing sheet: 297x210mm).
9. A screw is 22 mm long and 5.5 mm wide.
- a. What standardized scale will you select if you are trying to draw it using an A3 drawing sheet?
 - b. How long and how wide will the drawing be?
(Dimensions for an A3 drawing sheet: 410x297mm).
10. The following plan has been drawn using a 1:100 scale. What's the surface of the Main Hall?

