Tempo Spherical Activity #2

You will be given a tape measure, protractor and 1 triangular spherical wedge.

Your 1st task will be to measure the sides and angles of the triangular spherical wedge.

Draw a diagram of the partial spherical wedge and label its dimensions.

Now it's your task to find the following information:
(Note! Explain how you found the information.)

A) What is the sum of the angles of the triangular spherical wedge:

B) The surface area of the sphere this triangular spherical wedge comes from is:

C) The volume of the sphere this triangular spherical wedge comes from is:

D) Draw and label the dimensions of a rectangular solid that has the same surface area as the sphere:

E) Find the volume of the rectangular solid:

G) Which shape has the larger volume?:

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Links:

1. Tempo Gloss Globe – http://www.tempoglossglobe.com
2. Wikipedia, the free encyclopedia
   a. Sphere - http://en.wikipedia.org/wiki/Sphere
   b. Spherical wedge - http://en.wikipedia.org/wiki/Spherical_wedge
   c. Spherical packing - http://en.wikipedia.org/wiki/Sphere_packing

California State Standard ---- Geometry

8.0 Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.

9.0 Students compute the volumes and surface areas of prisms, pyramids, cylinders, cones, and spheres; and students commit to memory the formulas for prisms, pyramids, and cylinders.

11.0 Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids.