“…Wonder defined [as it was up to the end of the eighteenth century] as a form of learning – an intermediate, highly particular state akin to a sort of suspension of the mind between ignorance and enlightenment that marks the end of unknowing and the beginning of knowing.”

Adalgisa Lugli, “Inquiry as Collection”
Model of Surface Detail

Suspended wire relates to the search for connections between two distinct fields. Wire arches represent established collaborations/connections. Wire thickness could correlate to impact of the connection.

Sprouting “berries” correspond to fields of research or knowledge.

Canals represent erosion of knowledge through folklore, legend, or false information on the internet or media. These are much larger in comparison to undeniable truths (represented by bridges.)

Model by Carrie Longley
Model of Surface Detail
Version 2

Carved layers of information growth. Layer thickness and width relates to information growth rate.

Small layers of suspended information growth.

Model by Carrie Longley
Prototype 3 (in progress)
Prototype 3
Kevin Longley “Self Portrait”

“John Moore”
Overall form is a spiral. Form grows without changing shape.

Small sphere relates to beginning of knowing.

Spiral grows as knowledge builds.

Collaborations with connections covered in intestine.

Canals/voids or negative space represent false information.

Wires for new knowledge.
Underlying framework/network of knowledge represented with connected wires and "ribs."

Concept 2

-3 roots-
-Smaller-
-In distance-
Concept 1

“Swollen” areas represent period rapid growth of knowledge.
"Platforms" will be color coded

Present

Time line

3 stages total

Based on Warren Weaver's proposal stage of multidisciplinary science

These wires symbolize collaborations amongst fields

“Platforms" represent fields of science. Older, more established fields are lower and broader.

These wires represent beginning thoughts/ideas
5 Branches of Science:

1. Formal Science
   - Physical Science
     - Life Science
   - Social Science
     - Earth & Space
       - Planetary Sci.
         - Scale of the Universe
           - Cosmology
             - Astronomical Units
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**Branch:** Earth & Space  
**Astronomy:** the scientific study of stars, planets, and other objects in outer space  
**Fields:** Planetary Science, Cosmology  
Color Code: Mahogany

<table>
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<tr>
<th>Form</th>
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<tbody>
<tr>
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<tr>
<td>Spiraling galaxy</td>
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Solar System

Milky Way

Visible Universe
Branch: Earth & Space
Geoscience: Any of the various sciences dealing with the Earth’s atmosphere, hydrosphere, lithosphere, or biosphere.
Fields: Climate, Geology, Oceanography
Color Code: Mahogany
**Branch:** Social Science  
**Sociology:** is the study of social behavior or society, including its origins, development, organization, networks, and institutions  
**Fields:** Law, Ethics, Economics  
Color Code: Yellow

<table>
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<tr>
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<td>Rosetta stone</td>
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<td>human figures as a larger shape</td>
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Branch: Social Science
Psychology: is the study of behavior and mind, embracing all aspects of human experience.
Fields: Developmental, Cognitive
Color Code: Yellow

Form

Surface

illuminated brain
Branch: Life Science
Functional Biology: is the comparative physiology of plants and animals; i.e. comparing the way different kinds of organisms function in the context of their structure (anatomy).
Fields: Physiology, Medicine, Ecology
Color Codes: Olive Green, Emerald, Red, Dandelion, Brick Red, Peach
Branch: Life Science

Cellular Biology: is the study of cell structure and function, and it revolves around the concept that the cell is the fundamental unit of life. Focusing on the cell permits a detailed understanding of the tissues and organisms that cells compose.

Fields: Evolutionary Biology, Genetics
**Branch:** Physical Science  
**Chemistry:** is a branch of physical science that studies the composition, structure, properties and change of matter.  
**Fields:** Materials, Chemical Reactions  
Color Code: Blue

<table>
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<th>Surface</th>
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<tbody>
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<td>Atom</td>
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</table>
**Branch:** Physical Science

**Physics:** is the natural science that involves the study of matter and its motion through space and time, along with related concepts such as energy and force.

**Fields:** Particle Physics, Thermodynamics

Color Code: Mulberry
Branch: Formal Science
Mathematics: is the study of topics such as quantity (numbers), structure, space, and change.
Fields: Computer Science, Statistics, Informatics
Color Code: Mulberry

String Theory?
Branch: Formal Science

Logic: systematic study of the principles of valid inference and correct reasoning.

Fields: Philosophy, Semantics, Ethics, Metaphysics

Color Code: Mulberry

Form Surface

String Theory?
Additional Considerations...

Emerging Fields
1. Neuroparasitology
2. Quantum Biology
3. Exo-meteorology
4. Nutrigenomics
5. Cliodynamics
6. Synthetic Biology,
7. Recombinant Memetics,
8. Computational Social Science
9. Cognitive Economics
10. Organic Electronics
11. Quantitative Biology

Knowledge Voids

Organization: Do fields need to be arranged in order by scale of research subject?

Interactive Component: Marble run
- Strength of material
- Marble most appropriate?