FLINN SCIENTIFIC

Name_____

Microfossils Worksheet

Category of Microfossil _____

Sketches

Compare your specimens and sketches to images shown in Table 1.

Questions *(Use a separate sheet of paper to answer the following questions.)*

1. What *key features* (size, shape, markings, textures, etc.) of this microfossil provides key evidence as to its identity?
2. What *structure* of the organism formed the microfossil?
3. Do you think this organism lived in a group or individually?
4. Do you think this was a *free-moving* organism?
5. Do any *related marine species* still exist today? Which ones?
6. What is the likely mineral or chemical composition of this microfossil?

Microfossils Worksheet

Post-Lab Questions

1. Which categories of microfossils were most commonly found by your group? What about the class?

2. Give possible reasons why microfossils in some categories may be more abundant than others.

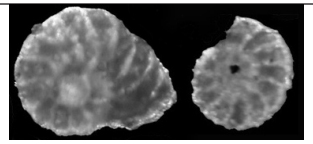
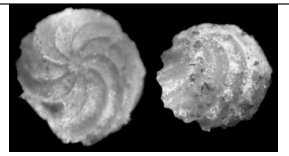
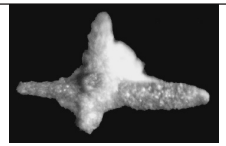
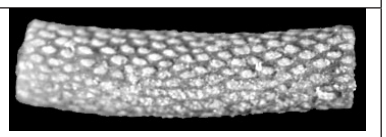
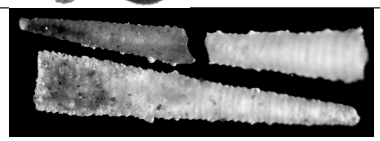
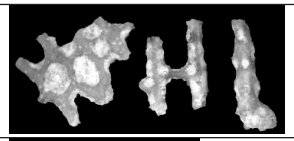
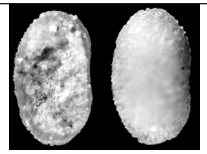
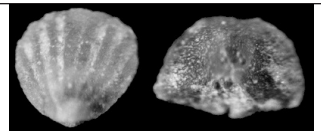
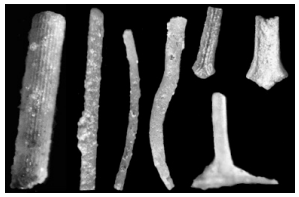
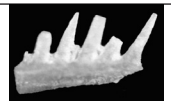
3. List similarities and differences between the identified microfossil specimens.

Use a local library, textbook or the Internet to answer the following two questions:

4. Besides the categories of organisms represented in Table 1, what other *marine organisms (invertebrate or vertebrate)* were also abundant during the Devonian Period, as evidenced from fossil specimens collected worldwide?

5. Find reference information showing continent positions during the Devonian Period (about 400 MYA). Describe the global location/position of the underwater land mass.

Checklist and Photos of Microfossil Categories in Sievings

Organism & fossilized part	ypical Image	Organism & fossilized part	Typical Image
★ **Foraminifera** (small, multi-chambered shell; often flattened)		★ **Charophyte algae** (spherical oogonia with curved, parallel ridges)	
w **Sponge** (spicules; small with multiple, radial prongs)		★ **Snail** (coiled shell with flattened or elevated spire)	
★ **Bryozoa** (cylindrical fragments of pitted, exoskeletal tubes)		★ **Tentaculite** (long, tapered, conical shell with fine concentric ribs)	
Bryozoa ★ (fenestrate, lattice-like exoskeletal tubes; pits on one side only)		**Polychaete** (toothed, ebony-colored jaws, or jaw fragments)	
★ **Ostracod** (bean-shaped, bivalved shells = carapace)		**Brachiopod** (articulating bivalved shells with radiating ridges)	
★ **Misc. spines** possibly echinoderm (echinoid), or other unknown origin		★ **Crinoid** (disk-like, endoskeletal ossicles; cylindrical or pentagonal)	
		Conodont animal (toothed fragments of jaw apparatus)	

[★ — indicates microfossils with relatively high abundance in provided samples]