



Ocean Currents - Teacher Review

K N P M R L E F R X G N G C H
 S G O I S D A O L P S O Q U Y
 X O S I I E Y B E O G I Y R P
 N E L L T E A E O Y W T G R E
 S A A A V C D W R L T A R E R
 C H E N R Z E E A E G I E N S
 L N O C B W D V M T A D N T E
 K C U D O E A P N Z E A E S C
 G W O X N D E E L O H R T A I
 Q N W S R R U G S Y C O A L X
 T G I P A E C A F R U S E T D
 F T O T S K N I S V L R H M O
 Y W U N O I T C U D N O C T O
 Q R M E L T T R A N S F E R C
 E D J P J S A L I N E Z Y O M

Write the 28 words relating to the Global Conveyor Belt below

CONDUCTION	GLOBAL	SALINE
CONVECTION	GYRE	SALT
CONVEYOR	HALIDE	SEA
CURRENT	HEAT	SEAWATER
DEEP	HYPER	SINKS
DENSITY	ICE	SOLAR
DUCK	MELT	SURFACE
ENERGY	OCEAN	TEMPERATURE
FLOW	RADIATION	TRANSFER
	RISES	

Write the three main reasons why maintaining deep ocean current flow is important to our planet.

1. They move heat (and cold) about the surface of the planet to maintain a relatively constant temperature in the atmosphere and hydrosphere.
2. They bring oxygen rich water up from the depths.
3. They bring nutrients up from the depths to feed krill that are the start of the marine food chain.

Where do these currents begin to move? **The Arctic and Antarctic Oceans**

Explain the processes that drive these currents? **Cold winds freeze out fresh water from seawater.**

The remainder becomes hyper-saline, denser and sinks to start the current.

What happens to these deep currents when they reach tropical waters?

They are warmed by surface waters, become less dense, rise and mix with surface waters.

What effect might global warming have on these currents?

Global warming might melt polar ice and decrease the drive from freezing. Their flow might slow or cease. Fishing fields will no longer receive their nutrients and their dependant industries will cease. Any plants or animals dependant on them will suffer from a decreased food source.